OVERVIEW OF THE COLLEGE

DE YOUNG MUSEUM
Associate in Arts or Associate in Science Degree
City College of San Francisco, a two-year college, confers the degrees of Associate in Arts or Associate in Science on students who satisfy the course and grade requirements for graduation.

Extensive Choice of Disciplines and Courses
The College offers you an extensive choice of disciplines and courses. Additionally, you may complete the first two years of training for a profession, satisfy freshman and sophomore requirements for transfer to baccalaureate degree-granting institutions; prepare for employment at the end of two years or a shorter period of training; take evening, Saturday, and summer courses; remove educational deficiencies; or get other special preparation.

Instructional areas include the following:
Program in General Education. An extensive selection of courses in the humanities, the arts, the natural and social sciences, and other fields.
Transfer Program. Courses offered to satisfy lower-division requirements to enable students to transfer to baccalaureate degree-granting institutions as juniors.
Occupational Program. Training for employment in occupations normally requiring two years or less of specialized career preparation.
Diversity Studies. Courses directed specifically to the interest and educational objectives of major segments of the San Francisco community including courses in African American, Asian American, Latin American, Lesbian, Gay, Bisexual and Transgender, and Philippine Studies.
International Education. Courses taught in other countries through Study Abroad and courses taught locally for international students, including an Intensive English Institute.
Distance Education Courses. Courses that are offered via online, hybrid and televised instruction.
Foundation Courses. Basic courses in business, English, guidance, and mathematics.
Noncredit Courses. Mostly open-entry/open-exit courses, many emphasizing vocational education, leading to employment or job upgrading but also including courses in English as a second language, elementary-level and secondary-level skills, workforce preparation, parent education, health and safety, home economics, citizenship for immigrants, and special courses for disabled persons and older adults.
Community Service Offerings. Workshops and other short-term offerings that serve community interests and for which fees are charged because no tax support is available.

College Accreditation
City College of San Francisco is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, 10 Commercial Blvd., Ste. 204, Novato, CA 94949, (415) 506-0234, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. The accreditation evaluation report is available for examination in the Chancellor’s Office, Conlan Hall, Room 200. In addition, many occupational curricula the College offers have specialized accreditation by, or approval from, recognized national or state agencies. For further information, please see the catalog sections for the following departments: Administration of Justice and Fire Science, Aircraft Maintenance Technology, Culinary Arts and Hospitality Studies, Dental Assisting, Environmental Horticulture, Health Education, Health Information Technology, Home Health Aide/Nurse Assistant, Medical Assisting, Nursing (Registered), Nursing (Licensed Vocational) Paramedic, Radiologic Sciences.

Student Development
City College offers a wide variety of services which are designed to help make your educational experience successful and rewarding. The Scholarship and the Financial Aid Programs, the Student Health Service, Veterans Services, Disabled Students Programs and Services, the Extended Opportunity Program and Services, the Re-Entry to Education Program, the Childcare Service, the Peer Adviser Program, the Information Center, and other services are available to assist you as you work toward attaining your educational goals.

Counseling Services
As a student at City College, you receive individual counseling from a professional counselor. Your instructors also advise and help you. Through its counseling programs, the College helps you choose an occupation; plan a program of study based on your interests, abilities, and needs; develop educational plans; provide various types of educational counseling, including academic, career, transfer, and personal, and assist you with personal problems or other matters affecting your studies or your college career.

Career Development Counseling Department
Formerly CDPC
As a CCSF student or alumni, you are entitled to all the career services provided by the Career Development Counseling Department. CDCD will assist you in making your career/job choices, setting your educational career goals, selecting your major, becoming job ready and seeking employment.

CCDC services include individual career counseling, online advising, workshops, career success courses (LERN 60, 61, 62, 63, 64, 68, and 1062), job resource information and job placement referrals. The Career Centers (under CDCD) also maintains a career resources library/lab which features computerized, written, and audio-visual career and employment information to assist you in making informed career decisions, as well as planning your job search strategies. CDCD lists on campus jobs through www.ccsf.edu/jobs and off campus jobs through CCSF Career Network www.career.ccsf.edu, and other links found on the CDCD website: www.ccsf.edu/CareerCenters. Job binders are also found at the Career Centers of the Ocean and Mission Campuses. The CDCD schedule of classes and workshops, as well as other events can also be found on our website www.ccsf.edu/CareerCenters. For more questions call 239-3117 or email careerchat@ccsf.edu.

City College at a Glance
- Nearly 100,000 students served annually in a diverse campus community
- Nine campuses and over 100 instructional sites throughout the city
- 2,000 faculty
- High transfer rate to 4-year universities
- Over 50 academic and 100 vocational programs
- Extensive student support services
- Job placement assistance
- Free noncredit courses
- Low cost credit courses
Learning Assistance Center
The Learning Assistance Center offers a variety of programs and services designed to help you become a more efficient, independent learner and to make your educational experience at City College more successful. The Tutorial Center provides free tutoring in mathematics, business, social sciences, foreign languages, and other subjects. English instructors and tutors are available to help you in the Writing Success Project. The Reading Lab provides students with individual assistance in vocabulary, spelling, and reading difficulties. The LAC Computer Lab offers access to the Internet and e-mail, and to educational CD ROM and software programs. College Success Courses and Career Success Courses are offered through the Learning Assistance Department, Interdisciplinary Studies Department, and Career Development and Placement Center. College success workshops are also available. The Learning Assistance Center at the Mission Campus offers many of these services as well.

Associated Students
Any student currently enrolled in a class at City College of San Francisco is a member of the Associated Students (AS). The AS Constitution sets up an Executive Board as a representative body for all CCSF campuses to facilitate communication, leadership, and advocacy. Each campus may adopt its own set of by-laws to guide local governance.

Each spring the Associated Students elects a student trustee to represent their interests on the San Francisco Community College Board of Trustees. Further, AS appoints all student participants for shared governance.

The AS Ocean Campus funds such diverse programs as the Book loan program for low income students; an emergency student loan fund; developing a program of cultural events and activities; selecting student representatives on college-wide shared governance committees; Dr. Betty Shabazz Family Resource Center, Guardian Scholars, HARTS, Multi Cultural Resource Center, Queer Resource Center Women's Resource Center, Student Health, Students Supporting Students, and more than 70 clubs and campus organizations. There is a $5 optional Student Activity Fee, payable at registration, to help support these activities.

The Associated Students can be reached in the Student Union Building at the Ocean Campus or by contacting the main office at (415) 239-3801 all other campuses.

Inter-Club Council (ICC)
Recognized and funded by the Ocean Campus Associated Students, the ICC consists of elected representatives from over 70 clubs. For more information about an existing club or about starting a new club, please stop by the Student Union Room 213 and pick up a club packet.

Student Activities Office - Student Union
City College of San Francisco provides a program of student activities that encourages student leadership, participation in shared governance, and involvement in campus life. Information is available in the Student Union Building, Room 205, Ocean Campus.

The Student Union at the Ocean Campus is a place where recognized student organizations can meet, socialize, and sponsor events. It is also a place where individual students and small groups can study and relax. There are AS Councils that sponsor student activities at the following campuses: Civic Center, Chinatown, Downtown, Evans, Gough, John Adams, Mission and Southeast.

Transfer to Universities and Colleges
To earn the Bachelor’s or a higher degree, or to complete training for a profession, you may transfer from City College to a university or a college as follows:

If, when you enter City College, you have already satisfied the requirements for admission to a university or a college, you may transfer with full credit whenever you have completed the proper university courses satisfactorily. Because the College is accredited nationally and offers preparation for so many fields, you have a wide choice of schools at which to take advanced courses. Generally, to be eligible for transfer, you will need an average final grade not lower than C in all courses that you attempt.

If you need to make up high school courses or grades, you may remove your deficiencies while you take the university courses for which you are qualified. The courses and grades necessary for transfer and the number of semesters you will need to complete depend upon the requirements of the university or college at which you plan to continue your studies.

The section in this catalog entitled “Transfer Information” lists general transfer requirements for the University of California (all campuses) and California State University (all campuses).

Articulation agreements which list detailed information concerning specific majors and which describe course transferability and applicability between City College of San Francisco and public baccalaureate degree-granting institutions in California are available online, www.assist.org. Other articulation information for City College can be found at www.ccsf.edu/artic.
Associate Degrees, Awards of Achievement, and Certificate Programs

Administration of Justice and Fire Science
ASSOCIATE DEGREE
Administration of Justice Major (AS) ......................... 67
Fire Science Technology Major (AS) ......................... 69
CREDIT CERTIFICATE
Administration of Justice Certificate .......................... 68
Forensic Identification Certificate .............................. 68
Firefighter I Academy Certificate .............................. 69
Fire Officer Certificate ........................................... 70
Fire Protection Certificate ........................................ 70

Aircraft Maintenance Technology
ASSOCIATE DEGREE
Aircraft Powerplant Maintenance Technology Major (AS) ..... 80
Airframe-Maintenance Technology Major (AS) .................. 80
Avionics-Maintenance Technology Major (AS) .................. 80
CREDIT CERTIFICATE
Aircraft Powerplant Maintenance Technology Certificate .... 80
Airframe-Maintenance Technology Certificate ................ 81
Avionics-Maintenance Technology Certificate ................ 81

Architecture
ASSOCIATE DEGREE
Architecture Major (AS) ....................................... 87
Interior Design Major (AS) ..................................... 87
Construction Management Major (AS) .................................. 88
CREDIT CERTIFICATE
Construction Management: Core Skills Certificate ........ 88
Construction Management: Advanced Skills Certificate .... 89
Collaborative Design* .......................................... 89

Automotive/Motorcycle, Construction, and Building Maintenance
ASSOCIATE DEGREE
Automotive Mechanics Major (AS) ............................ 101
Motorcycle Technician Major (AS) ............................. 103
CREDIT CERTIFICATE
Auto Body Damage Analysis and Estimating Certificate .... 101
Auto Body Painting and Refinishing Certificate ............... 101
Auto Body Structural Analysis and Damage Repair Certificate . 102
Automotive Metal Repair Certificate ........................... 102
Brake and Suspension Specialist Certificate ................ 102
Carpentry Certificate .......................................... 102
Engine Repair Specialist Certificate .......................... 103
General Automotive Technician Certificate .................. 103
Non-Structural Analysis and Damage Repair Certificate .... 103
Transmission Specialist Certificate .......................... 103
Motorcycle Technician Certificate ............................ 104
Motorcycle Engine and Power Train Repair Certificate .... 104
Motorcycle General Service Certificate ...................... 104
Motorcycle Tune-up, Electrical, and Performance Certificate ... 104
Residential Plumbing Certificate ............................. 105
NONCREDIT CERTIFICATE
Building Operation-Maintenance and Repair Noncredit Certificate ...................... 105
Construction Trade Noncredit Certificate ..................... 105
Custodial Training Noncredit Certificate ..................... 106

Biological Sciences
ASSOCIATE DEGREE
Biological Sciences Major (AS) ................................ 114
Environmental Studies and Science Major (AS) .............. 115
CREDIT CERTIFICATE
Biological Sciences Certificate ............................... 115

Broadcast Electronic Media Arts
CREDIT CERTIFICATE
Broadcast Journalism Certificate .......................... 119
Broadcast Motion Graphics Certificate .................. 120
Digital Radio Certificate ................................ 120
Live Sound Certificate .................................. 120
Sound Design Certificate ................................ 121
Sound Recording Certificate .............................. 121
Television Production Certificate .......................... 121
Video Post-Production Certificate ......................... 122
Video Production and Editing Certificate .................. 122

Business
ASSOCIATE DEGREE
Accounting Major (AS) .................................... 127
Administrative Support Major (AS) ......................... 129
California Real Estate Major (AS) .......................... 140
Finance Major (AS) ....................................... 136
General Business Major (AS) .............................. 137
Marketing Major (AS) ..................................... 139
Paralegal/Legal Studies Major (AS) ......................... 139
Travel and Tourism Major (AS) .............................. 143
CREDIT CERTIFICATE
Microcomputer Accounting Certificate .................. 127
Office Technology Certificate .............................. 129
Finance Certificate ........................................ 137
General Business Certificate .............................. 137
Green & Sustainable Business Certificate ................. 137
International Business Certificate .......................... 138
Marketing Certificate ..................................... 139
Paralegal/Legal Studies Certificate ....................... 140
California Real Estate Certificate ......................... 141
Retail Management Certificate .............................. 141
Supervision and Management Certificate .................. 142
Travel and Tourism Certificate ............................ 143
Travel and Tourism Management Certificate .................. 143
Destination Specialist Certificate ........................ 144
Green and Sustainable Travel Certificate .................. 144
Overview of the College

NONCREDIT CERTIFICATE
Accounting Assistant Noncredit Certificate .................................................. 127
Administrative Assistant Noncredit Certificate ................................................ 130
Advanced Word Processing Noncredit Certificate ......................................... 133
Basic Business Office Skills for Customer Service Noncredit Certificate ......... 133
Basic Business Skills for the Medical Office Noncredit Certificate ............... 130
Basic Computer Concepts Noncredit Certificate .......................................... 133
Basic Word Processing Noncredit Certificate .............................................. 133
Business Office Publishing Basics Noncredit Certificate .......................... 134
Business Office Publishing Specialist Noncredit Certificate ...................... 134
Business Office Support Skills, Phase I Noncredit Certificate .................. 134
Business Office Support Skills, Phase II Noncredit Certificate .................. 134
Business Web Pages-Basics Noncredit Certificate ........................................ 135
Business Web Pages-Intermediate Noncredit Certificate .......................... 135
Clerical Accounting Noncredit Certificate .................................................... 128
Clerical Support Specialist Noncredit Certificate ......................................... 131
Computer Applications for Business Noncredit Certificate ...................... 131
Computerized Accounting Specialist Noncredit Certificate ....................... 128
Construction Administrative Assistant Noncredit Certificate .................... 135
Excel Basics Noncredit Certificate ................................................................. 136
Excel Specialist Noncredit Certificate ............................................................. 136
Green & Sustainable Small Business Noncredit Certificate ....................... 138
International Business Noncredit Certificate .................................................. 138
Microsoft Office Specialist Noncredit Certificate ......................................... 132
Office Receptionist Noncredit Certificate ....................................................... 132
PowerPoint Specialist Noncredit Certificate ................................................ 136
Small Business Noncredit Certificate ............................................................. 141
Specialized Accounting Skills Noncredit Certificate ................................... 129
Supervision and Business Management Noncredit Certificate .................. 142

Child Development and Family Studies
ASSOCIATE DEGREE
Child Development Major (AS) ................................................................. 170

CREDIT CERTIFICATE
Child Development: Administration Certificate ............................................. 170
Child Development: Appreciating Diversity Certificate ............................... 170
Child Development: Family Childcare Certificate ........................................ 171
Child Development: General Certificate ....................................................... 171
Child Development: Infant/Toddler Care Certificate .................................... 171
Child Development: Pre-Teacher Certificate ............................................... 171
Child Development: Professional Development and Advocacy Certificate .... 172
Child Development: School-Age Care Certificate ......................................... 172
Child Development: Violence Intervention in Early Childhood Certificate .... 172
Child Development: Youth Worker Certificate ............................................. 173
Special Education: Early Intervention or K-12 Focus Certificate ................. 173

NONCREDIT CERTIFICATE
Introduction to Child Development Careers Noncredit Certificate* ............... 173

Chinese
ASSOCIATE DEGREE
Chinese (Mandarin) Major (AA) ................................................................. 179

CREDIT CERTIFICATE
Chinese (Mandarin) Certificate ................................................................. 179

Cinema
ASSOCIATE DEGREE
Cinema Production Major (AS) ................................................................. 182

Computer Networking and Information Technology
ASSOCIATE DEGREE
Computer Networking and Information Technology Major (AS) .............. 185

CREDIT CERTIFICATE
Computer Technical Support Certificate ..................................................... 186
Computer Technician Certificate ................................................................. 186
Digital Home Technology Integration Certificate ...................................... 187
E-Commerce Systems Development Certificate ........................................ 187
Fundamentals of Networking Certificate .................................................... 187
Network Security Certificate ........................................................................ 187
Routing and Switching (Cisco) Certificate ................................................ 187
Web Site Development Techniques Certificate ......................................... 188
Wireless Networking Certificate ................................................................. 188

Computer Science
ASSOCIATE DEGREE
Computer Science Major (AS) ..................................................................... 193
Computer and Information Science Major (AS) .......................................... 194

CREDIT CERTIFICATE
Computer Programming: C++ Certificate ................................................... 194
Computer Programming: Java Certificate .................................................... 194
Computer Programming: Visual Basic with Database Certificate ............. 194
Computing Skills for Scientists Certificate ................................................. 195
Database Programming: MySQL/Open Source Technologies Certificate .... 195
Database Programming: Oracle Certificate ................................................ 195
LAMP Fundamentals Certificate ................................................................. 196
LAMP Administration Certificate ............................................................... 196
Unix/Linux Administration Certificate ......................................................... 196

Consumer Education
CREDIT CERTIFICATE
Nutrition Assistant Certificate ................................................................. 202

Culinary Arts and Hospitality Studies
ASSOCIATE DEGREE
Culinary Arts Management Major (AS) ....................................................... 205
Food Service Management Major (AS) ......................................................... 206
Hotel Management Major (AS) ................................................................. 207

NONCREDIT CERTIFICATE
Culinary and Service Skills Training Noncredit Certificate ......................... 210
Baking and Pastry Noncredit Certificate ..................................................... 210
Dental Assisting
ASSOCIATE DEGREE
Dental Assisting Major (AS) ........................................... 212
CREDIT CERTIFICATE
Dental Assisting Certificate ........................................... 213

Earth Sciences
ASSOCIATE DEGREE
Earth Science Major (AS) ........................................... 216
Geology Major (AS) ........................................... 217
Oceanography Major (AS) ........................................... 218
CREDIT CERTIFICATE

Engineering and Technology
ASSOCIATE DEGREE
Biotechnology Major (AS) ........................................... 222
Engineering Major (AS) ........................................... 222
Electronic Engineering Technology Major (AS) ................. 224
Mechanical Engineering Technology Major (AS) ............... 224
CREDIT CERTIFICATE
Air-Conditioning and Refrigeration Certificate ................. 225
Basic Electronics Certificate ........................................ 228
Biomanufacturing Certificate ........................................ 225
Biomedical Equipment Technician (BMET) Certificate* ........ 225
Biotechnology Certificate ........................................... 225
Bioprocess Instrumentation and Control Certificate ............. 226
Biotechnology Lab Assistant Certificate .......................... 226
Computer Aided Design (CAD)-Architectural Certificate ....... 228
Computer Aided Drafting (CAD) Certificate ......................... 228
Engineered Plumbing Systems Certificate ......................... 227
Environmental Control Technology Certificate .................. 227
Genomics Technology Certificate .................................. 226
Geographic Information Systems (GIS) Certificate .............. 229
Intermediate Electronics Certificate ............................... 228
Manufacturing and Metal Fabrication Certificate ................. 228
Nuclear Science Technology Certificate .......................... 226
Sustainability Certificate ............................................. 227

English
ASSOCIATE DEGREE
English Major (AA) ........................................... 237

English as a Second Language
CREDIT CERTIFICATE
Advanced Academic English as a Second Language Certificate ........................................... 242
ESL for Health Professionals Certificate* ........................ 242
NONCREDIT CERTIFICATE
ESL Literacy Noncredit Certificate ................................ 245
ESL Beginning Low 1 Noncredit Certificate ......................... 245
ESL Beginning Low 2 Noncredit Certificate ......................... 245
ESL Beginning Low 1-2 Intensive Noncredit Certificate ......... 245
ESL Beginning Low 1-4 Multi-Level Noncredit Certificate ....... 245
ESL Beginning Low Conversation Noncredit Certificate ........ 245

Environmental Horticulture and Floristry
ASSOCIATE DEGREE
Commercial Cut-Flower and Greenhouse Production Major (AS) ........................................... 259
Floristry Major (AS) ........................................... 260
Landscape Gardening and Landscape Contracting Major (AS) ........................................... 259
Nursery and Garden-Center Operation Major (AS) ............... 259
CREDIT CERTIFICATE
Commercial Cut-Flower Greenhouse Production Certificate .... 260
Landscape Maintenance Certificate .................................. 260
Nursery and Garden-Center Operation Certificate ............... 260
<table>
<thead>
<tr>
<th>Health Care Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSOCIATE DEGREE</td>
</tr>
<tr>
<td>CVT and Echocardiography Major* (AS)</td>
</tr>
<tr>
<td>Health Information Technology Major (AS)</td>
</tr>
<tr>
<td>Medical Office Assisting Major (AS)</td>
</tr>
<tr>
<td>Medical Administrative Assisting Major (AS)</td>
</tr>
<tr>
<td>Paramedic Major (AS)</td>
</tr>
<tr>
<td>CREDIT CERTIFICATE</td>
</tr>
<tr>
<td>CVT/Echocardiography Technician Certificate</td>
</tr>
<tr>
<td>EKG Technician Certificate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSOCIATE DEGREE</td>
</tr>
<tr>
<td>Health Education Major (AS)</td>
</tr>
<tr>
<td>CREDIT CERTIFICATE</td>
</tr>
<tr>
<td>Child Development: Youth Worker Certificate*</td>
</tr>
<tr>
<td>Community Mental Health Certificate</td>
</tr>
<tr>
<td>Drug and Alcohol Studies Certificate</td>
</tr>
<tr>
<td>Health Care Interpreter Certificate</td>
</tr>
<tr>
<td>HIV/STI Prevention: Case Management Skills Certificate</td>
</tr>
<tr>
<td>HIV/STI Prevention: Facilitation Skills Certificate</td>
</tr>
<tr>
<td>Post-Prison Health Worker Specialty Certificate</td>
</tr>
<tr>
<td>Sexual Health Educator Certificate*</td>
</tr>
<tr>
<td>Trauma Prevention and Recovery Certificate*</td>
</tr>
<tr>
<td>Youth Worker: Organizing, Advocacy, Counseling and Education Certificate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interdisciplinary Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREDIT CERTIFICATE</td>
</tr>
<tr>
<td>Collaborative Design Certificate</td>
</tr>
<tr>
<td>Diversity and Social Justice Certificate</td>
</tr>
<tr>
<td>Leadership Skills for Youth Workers Certificate*</td>
</tr>
<tr>
<td>Trauma Prevention and Recovery Certificate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Italian</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSOCIATE DEGREE</td>
</tr>
<tr>
<td>Italian Major (AA)</td>
</tr>
<tr>
<td>CREDIT CERTIFICATE</td>
</tr>
<tr>
<td>Italian Certificate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSOCIATE DEGREE</td>
</tr>
<tr>
<td>Japanese Major (AA)</td>
</tr>
<tr>
<td>CREDIT CERTIFICATE</td>
</tr>
<tr>
<td>Japanese Certificate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Journalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSOCIATE DEGREE</td>
</tr>
<tr>
<td>Journalism Major (AA)</td>
</tr>
<tr>
<td>CREDIT CERTIFICATE</td>
</tr>
<tr>
<td>Editorial Management and Design Certificate</td>
</tr>
<tr>
<td>On-line Research Certificate</td>
</tr>
</tbody>
</table>
Labor and Community Studies
ASSOCIATE DEGREE
Labor and Community Studies Major (AS) ........................................... 329
CREDIT CERTIFICATE
Cesar Chavez Certificate ................................................................. 330
Solidarity Forever/Si Se Puede Certificate ........................................ 330

Latin American and Latino/a Studies
ASSOCIATE DEGREE
Latin American & Latino/a Studies Major (AA) ................................. 333
CREDIT CERTIFICATE
Latin American & Latino/a Studies Certificate .............................. 334

Lesbian, Gay, Bisexual, and Transgender Studies
ASSOCIATE DEGREE
Lesbian, Gay, Bisexual, and Transgender Studies Major (AA) .......... 337

Liberal Arts and Sciences
ASSOCIATE DEGREE
Arts and Humanities Emphasis (AA) ............................................. 341
Communication Emphasis (AA) ....................................................... 342
Science and Mathematics Emphasis (AS) ...................................... 342
Social and Behavioral Sciences Emphasis (AS) ............................... 342

Library Information Technology
ASSOCIATE DEGREE
Library Information Technology Major (AS) .................................. 343
CREDIT CERTIFICATE
Library Information Technology Certificate .................................. 343

Nursing, Registered
ASSOCIATE DEGREE
Registered Nursing Major (AS) ...................................................... 352

Nursing, Licensed Vocational
CREDIT CERTIFICATE
Home Health Aide/Nurse Assistant Certificate ............................... 354
Vocational Nursing Certificate ....................................................... 355

Photography
ASSOCIATE DEGREE
Photography Major (AS) .............................................................. 361
Collaborative Design Certificate* .................................................. 361

Physical Education and Dance
ASSOCIATE DEGREE
Dance-Performance Art Major (AA) ............................................. 364
CREDIT CERTIFICATE
Option 1 - Classical Dance Performance Certificate ...................... 365
Option 2 - African Heritage Performance Certificate .................... 365
Option 3 - Social and Folk Dance Performance Certificate .......... 366
Option 4 - Dance Aerobics and Fitness Certificate ......................... 366
Yoga Instruction Certificate .......................................................... 366

Physics
ASSOCIATE DEGREE
Physics Major (AS)* .................................................................... 377

Pilipino
CREDIT CERTIFICATE
Pilipino Certificate ........................................................................ 378

Psychology
ASSOCIATE DEGREE
Psychology Major (AA-T) .............................................................. 380

Radiologic Sciences
ASSOCIATE DEGREE
Diagnostic Medical Imaging Major (AS) ....................................... 384
Radiation Therapy Technology Major (AS) .................................. 387

Russian
CREDIT CERTIFICATE
Russian Certificate .......................................................................... 389

Sociology
CREDIT CERTIFICATE
Introduction to Human Services Certificate ................................. 391

Spanish
ASSOCIATE DEGREE
Spanish Major (AA) ................................................................. 392
CREDIT CERTIFICATE
Spanish Certificate ................................................................. 392

Speech Communication
ASSOCIATE DEGREE
Speech Communication Major (AA-T) ....................................... 394
CREDIT CERTIFICATE
Speech Communication Certificate ......................................... 394

Transitional Studies
CCSF High School Diploma Program ........................................... 399
NONCREDIT CERTIFICATE
Adult Basic Education Level 1 Noncredit Certificate ..................... 399
Adult Basic Education Level 2 Noncredit Certificate .................... 400
Adult Secondary Education Level 3 Noncredit Certificate ............ 400
Academic Skills Elementary Level 1 Noncredit Certificate .......... 400
Academic Skills Intermediate Level 2 Noncredit Certificate ........ 400
Vocational Foundation Skills Noncredit Certificate ..................... 400

Women’s Studies
ASSOCIATE DEGREE
Women’s Studies Major (AA) ....................................................... 404
CREDIT CERTIFICATE
Sexual Health Educator Certificate ............................................. 405

Sociology
CREDIT CERTIFICATE
Introduction to Human Services Certificate ................................. 391

Spanish
ASSOCIATE DEGREE
Spanish Major (AA) ................................................................. 392
CREDIT CERTIFICATE
Spanish Certificate ................................................................. 392

Speech Communication
ASSOCIATE DEGREE
Speech Communication Major (AA-T) ....................................... 394
CREDIT CERTIFICATE
Speech Communication Certificate ......................................... 394

Transitional Studies
CCSF High School Diploma Program ........................................... 399
NONCREDIT CERTIFICATE
Adult Basic Education Level 1 Noncredit Certificate ..................... 399
Adult Basic Education Level 2 Noncredit Certificate .................... 400
Adult Secondary Education Level 3 Noncredit Certificate ............ 400
Academic Skills Elementary Level 1 Noncredit Certificate .......... 400
Academic Skills Intermediate Level 2 Noncredit Certificate ........ 400
Vocational Foundation Skills Noncredit Certificate ..................... 400

Women’s Studies
ASSOCIATE DEGREE
Women’s Studies Major (AA) ....................................................... 404
CREDIT CERTIFICATE
Sexual Health Educator Certificate ............................................. 405
## Calendar of Instruction

<table>
<thead>
<tr>
<th>Event</th>
<th>Fall 2012</th>
<th>Spring 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residency Determination Date</td>
<td>August 14, 2011</td>
<td>January 13, 2012</td>
</tr>
<tr>
<td>Martin Luther King, Jr.'s Birthday - No Monday evening class</td>
<td>August 15</td>
<td>January 21</td>
</tr>
<tr>
<td>Instruction begins - Day/Evening Classes</td>
<td>August 18</td>
<td>January 19</td>
</tr>
<tr>
<td>First day of Saturday classes</td>
<td>August 19</td>
<td>January 20</td>
</tr>
<tr>
<td>Last day to drop or reduce course work to obtain a 100% refund for</td>
<td>August 29</td>
<td>January 28</td>
</tr>
<tr>
<td>enrollment fee &amp; N/R foreign student tuition fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last day to add credit classes and change sections</td>
<td>August 31</td>
<td>February 1</td>
</tr>
<tr>
<td>Last day to add credit classes via WEB4 only</td>
<td>August 31</td>
<td>February 1</td>
</tr>
<tr>
<td>Labor Day Weekend</td>
<td>September 1–3</td>
<td></td>
</tr>
<tr>
<td>Last day to drop credit classes w/ no notation on academic record</td>
<td>September 6</td>
<td>February 7</td>
</tr>
<tr>
<td>Last day to drop or reduce course work to qualify for a 50% pro-rated</td>
<td>September 6</td>
<td>February 7</td>
</tr>
<tr>
<td>nonresident and foreign student tuition refund fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln's Birthday</td>
<td></td>
<td>February 15</td>
</tr>
<tr>
<td>Presidents' Birthday weekend. No Saturday/Sunday classes</td>
<td>February 16 –17</td>
<td></td>
</tr>
<tr>
<td>Washington's Birthday</td>
<td></td>
<td>February 18</td>
</tr>
<tr>
<td>Last day to request a pass/no pass grading option</td>
<td>September 13</td>
<td>February 19</td>
</tr>
<tr>
<td>Last day to request GPA verification for CAL Grants</td>
<td>August 29</td>
<td>February 27</td>
</tr>
<tr>
<td>Last day to petition for Degree or Certificate</td>
<td>September 27</td>
<td>February 28</td>
</tr>
<tr>
<td>Faculty Day</td>
<td>October 8</td>
<td></td>
</tr>
<tr>
<td>End of the midterm period</td>
<td>October 12</td>
<td>March 15</td>
</tr>
<tr>
<td>Spring Vacation</td>
<td></td>
<td>March 23–31</td>
</tr>
<tr>
<td>Cesar Chavez Day</td>
<td>November 17</td>
<td>April 1</td>
</tr>
<tr>
<td>Last day to file for a Leave of Absence</td>
<td>November 15</td>
<td>April 11</td>
</tr>
<tr>
<td>Last day for student/instructor initiated withdrawal from classes</td>
<td>November 10 –12</td>
<td></td>
</tr>
<tr>
<td>Veteran's Day Observance</td>
<td>November 21</td>
<td>April 26</td>
</tr>
<tr>
<td>Faculty Flax Day (No classes)</td>
<td>November 22 –25</td>
<td></td>
</tr>
<tr>
<td>Thanksgiving Holiday</td>
<td>December 11</td>
<td>May 16</td>
</tr>
<tr>
<td>Last day to remove an Incomplete received in the previous semester</td>
<td>December 12</td>
<td>May 17</td>
</tr>
<tr>
<td>First day of final examinations for day classes</td>
<td>December 13</td>
<td>May 18</td>
</tr>
<tr>
<td>Last session &amp; final examinations for Thursday evening classes</td>
<td>December 15</td>
<td>May 19</td>
</tr>
<tr>
<td>Last session &amp; final examinations for Saturday classes</td>
<td>December 16</td>
<td>May 19</td>
</tr>
<tr>
<td>Last session &amp; final examinations for Sunday classes</td>
<td>December 17</td>
<td>May 20</td>
</tr>
<tr>
<td>Last session &amp; final examinations for Monday evening classes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Calendar of Instruction

<table>
<thead>
<tr>
<th>Event</th>
<th>Fall 2012</th>
<th>Spring 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last session &amp; final examinations for Tuesday evening classes</td>
<td>May 21</td>
<td></td>
</tr>
<tr>
<td>Last session &amp; final examinations for Tuesday, Tuesday/Thursday evening classes</td>
<td>December 18</td>
<td></td>
</tr>
<tr>
<td>Last session &amp; final examinations for Wednesday, Monday/Wednesday evening classes</td>
<td>December 19</td>
<td>May 22</td>
</tr>
<tr>
<td>Last session &amp; final examinations for Tuesday, Tuesday/Thursday classes</td>
<td>May 22</td>
<td></td>
</tr>
<tr>
<td>Last day of final examinations for day classes</td>
<td>December 19</td>
<td>May 24</td>
</tr>
<tr>
<td>Mid-year recess</td>
<td>December 20, 2012 – January 10, 2013</td>
<td></td>
</tr>
</tbody>
</table>

### August 2012

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td>31</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### September 2012

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### October 2012

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### November 2012

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

### December 2012

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### January 2013

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### February 2013

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### March 2013

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### April 2013

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### May 2013

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### June 2013

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### July 2013

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td>31</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
ADMISSION TO THE COLLEGE

Step 1: Go to www.ccsf.edu on your web browser.
Step 2: Click on the MyCCSF button.
Step 3: Click on Web4 under “For Students” column.
Step 4: Under Student login, enter your 9-digit User ID: [********] Student I.D. Number. Enter your PIN: [*******] normally your Birth Date (example April 1, 1975 is 040175). NOTE: To ensure maximum security it is advised that you change your PIN.
Step 5: Re-enter PIN: [*******] on the Login Verification page.
Step 6: On the Main Menu page click on Student Services & Financial Aid.
Step 7: On the Student & Financial Aid page click on Registration.
Step 8: Follow the instructions on the Registration page.
Step 9: You can buy a Parking Permit on the web. Click on Purchase Parking Sticker and follow the instructions. Important: Remember to exit your browser when you are finished.

NOTE: WebSTARS will charge a one-time $3.00 fee per semester. This fee will cover WebSTARS registration. There is no charge during Add/Drop.

Helpful Hints for Online Registration

- Students must be admitted to the College and have met the matriculation requirements prior to registration. A registration appointment is required to use WebSTARS. To view a registration appointment, log on to www.ccsf.edu and go to the Registration page and click on “Check Your Registration Status”, or call (415) 239-3732.
- To protect confidentiality, it is strongly recommended that each student process his/her own registration.
- Be prepared for registration. Your first choice may not be available. Therefore, select two or more sections of the same course before attempting to register.
- All administrative and/or academic holds that prevent enrollment must be cleared prior to registration.
- The registration system does not allow time conflicts, multiple registrations in the same course, enrolling in a course without fulfilling the prerequisite, multiple unauthorized repeats, exceeding the maximum number of units (17 semester units).
- After a student’s registration has passed, courses may be added or dropped as often as necessary while the registration system is available.

I have questions. Who can help?
Answers for online registration questions are available Monday through Thursday, 8 A.M. to 5 P.M. and on Friday 8 A.M. to 2 P.M. by calling (415) 239-3732.
In addition you may email your question to register@ccsf.edu
NOTE: If you have forgotten your pin number or your PIN number has been disabled, please email us at corrects@ccsf.edu

Admissions Policy (Credit Classes)
City College has an open admissions policy. Eligibility to attend is satisfied if you have met at least one of the following requirements:

- You are eighteen (18) years old on or before the first day of instruction for the term which you are applying
- You are a high school graduate.
- You are the equivalent of a high school graduate, i.e., you have passed the GED or a state’s high school proficiency examination.

Please note that the above requirements are general; other factors may determine eligibility.

Contact the Office of Admissions and Records for more details or visit our website at http://www.ccsf.edu.

Admissions as a Special Part Time Student (Concurrently Enrolled in High School)
The Board of Trustees of the San Francisco Community College District authorizes certain High School students under the age of 18 years of age to enroll in one or more courses of instruction at City College of San Francisco.

To be considered for admissions as a Concurrently Enrolled High School Student, Section 76011 of the California Code of Regulations requires the recommendation of the high school principal and the consent of the parent or guardian.

For more information regarding admissions deadline dates and enrollment policies, please call (415) 239-3286 or visit www.ccsf.edu/NEW/en/educational-programs/k-12-programs/concurrent.html.

Advanced Standing
Students who have previously completed course work at other schools of collegiate rank may transfer to City College of San Francisco. One month after enrolling at the College, they may request an evaluation from the Office of Admissions and Records to determine which of their courses are transferable for a City College degree or certificate. Only courses from regionally accredited institutions will be considered for transfer to City College. For information on how coursework transfers to universities, consult with a counselor.

High School Honors Courses. City College grants advanced standing and units to students who have completed high-school advanced placement courses and present scores of 5, 4 or 3 certified by the College Entrance Examination Board. A grade of Credit will be entered for an appropriate college course or courses when suitable verification is provided to the Office of Admissions and Records.

Readmission to City College
Students who have completed a semester, but have interrupted their attendance by an absence of two semesters or more, may not register until they have been readmitted to the College. Such students must be readmitted before the beginning of the semester for which they plan to re-enroll.

If the entire enrollment process (See “Procedures for Enrollment in Credit Classes”) outlined in steps two, three, and four have never been completed, they will need to be completed before registering for classes, unless an exemption has been granted. Please see Matriculation Section for exemptions.

Applications for readmission are available on-line at http://www.ccsf.edu or in the Office of Admissions and Records.

Reduced Fees Under AB540
Nonresident students may be eligible to pay the $46 per unit fees just like California residents.

What is AB540? AB540 is a state law that exempts certain students who are not residents of California from paying non-resident tuition at California Community Colleges and California State Universities.
Who is eligible? Students who meet all of the following requirements:

a. You attended a California high school for three or more years.
b. You graduated from a California high school or attained the equivalent of a high school diploma from California (e.g., GED or California Proficiency Exam).
c. You registered in Spring 2002 or later.
d. You completed a California Nonresident Tuition Exemption Request form.

What steps do I take to determine whether I qualify? Complete a California Nonresident Tuition Exemption Request form. City College will determine your eligibility.

If I qualify for nonresident tuition under AB540, how much do I have to pay to attend CCSF? $46 per unit.

When can I apply? You can apply at any time. Complete the California Nonresident Tuition Exemption Re-quest form and submit it to City College of San Francisco, Admissions and Records Credit Division, Conlan Hall 107, 50 Phelan Ave., San Francisco, CA 94112.

Where can I go for more information and a California Nonresident Tuition Exemption Request form? Contact: Admissions and Records-Credit (Conlan Hall 107); Admissions and Records-Noncredit (31 Gough St.); Admissions and Enrollment (all campuses); Counseling (all campus-ses); Chinatown/North Beach (940 Filbert); African American Scholastic Programs (Bungalow 500); and Latino Services Network (Cloud 364).

If I am a U.S. citizen, does this apply to me? Yes. AB540 applies to you if you attended a California high school for three or more years AND you graduated from a California high school or attained the equivalent of a high school diploma from California (e.g., GED or California Proficiency Exam).

What if I have more questions? Contact the Residency Department, Office of Admissions and Records, City College of San Francisco, Conlan Hall 107, 50 Phelan Ave., San Francisco, CA 94112, (415) 239-3287, fax (415) 239-3936 or email resident@ccsf.edu.

International Students
City College of San Francisco enthusiastically welcomes international students from throughout the world. Currently there are students from more than fifty countries studying at CCSF. Their presence on campus complements a broad mosaic of multi-ethnic students from San Francisco.

Credit students who wish to be admitted to CCSF’s credit program must:

1. Submit evidence of a degree of academic achievement the equivalent of an American high school education. The student must submit an official transcript of his/her school record accompanied by a certified translation in English.
2. Demonstrate sufficient command of English to profit from instruction at the college. Accepted test scores are minimum score of 473 on the written TOEFL Exam or 52 iBT or 4.5 IELTS.
3. Submit current certification of sufficient financial resources to cover tuition fees and living expenses while attending CCSF.

The documents listed above must be fully completed and submitted to the International Students Office, Conlan Hall, Room 107 by November 2nd for the Spring Semester, and by June 1st for the Fall Semester.

International students are required to complete 12 units of class work each semester to maintain their status. Application forms for international students who are interested in the credit program are available from the International Students Admissions Office, City College of San Francisco, 50 Phelan Avenue, Conlan Hall, Room 107, San Francisco, CA 94112. Phone (415) 239-3837, Fax (415) 239-3936. You may request in writing for one to be mailed to you. Please include your return address.

Conditional Admission is offered to international students whose TOEFL score is below the required score of 473. For more information, please contact (415) 239-3895 or read below.

Conditional Admission Through the Intensive English Program
International students who have a TOEFL score lower than the required 473 PBT (152 Computer-based) or iBT 52. or IELTS 4.5 for CCSF but wish to enroll in the Academic Program, may be conditionally admitted to the Academic Program. Full admission to the Academic Program is contingent upon the successful completion of the Intensive English Program offered at CCSF. Students must also achieve a score of 473 on the Institutional TOEFL Examination or place in ESL 150. Students interested in Conditional Admission to CCSF should complete the application form from the Academic Program and check off Conditional Admission on the form. Applications are available on the website: www.ccsf.edu/international. For more information, call 415 239-3895 or e-mail: international@ccsf.edu

San Francisco Consortium: Cross-Registration
City College of San Francisco is a member of the San Francisco Consortium. Through the functions of the Consortium, a variety of educational opportunities are made available to students of the member institutions. For example, currently enrolled, full-time, matriculated students may register for credit in courses offered by the following institutions: Golden Gate University; San Francisco State University, and the University of San Francisco. Cross-registration is permitted if the course is not currently offered at the host institution, and if the student has satisfied course prerequisites and is enrolled in 12 units at the home institution. This cross-registration policy applies only to the regular sessions of the academic year and specifically excludes summer sessions, extension courses, and similar programs.

Further information for students whom the Consortium may help is available in the Registration Center, Smith Hall 118 and the Office of Admissions and Records, Conlan Hall E107.

Matriculation Policy for Credit Classes
It is the policy of the District to ensure equal educational opportunity for all students. The Matriculation process at CCSF brings the student and the College into a partnership agreement to develop and realize the student’s educational goals.

City College of San Francisco agrees to provide the following services:

1. Basic skills assessment and career guidance
2. Orientation to College programs and services
3. Counseling and advisement
4. Opportunity to develop an educational plan
5. Continued monitoring of academic progress

The student agrees to:

1. Attend classes regularly and complete assigned course work
2. Use support services as needed
3. Consult with counselors and advisors when appropriate
4. Be willing to declare an educational goal following the completion of 15 semester units
Matriculation Exemption Policy
All new students enrolling in credit classes are required to participate in the matriculation process. However, you may be excused from participation in the assessment, orientation, or counseling components if you meet either of the criteria below:

1. You have already earned an A.A./A.S. degree or higher (U.S. accredited institutions only). Or,
2. You do not intend to ever enroll in more than 9 units of courses at CCSF. You do not intend to enroll in courses with prerequisites, enroll in any Math, English or ESL courses, AND do not intend to earn a degree or certificate from CCSF or transfer to a university.

Matriculation Steps for Enrollment in Credit Classes
Students are more likely to succeed in college when they have an accurate assessment of their skills, an idea of their educational goals, and an understanding of the course selection and registration processes. Matriculation services are designed to inform students about how the “system” works. Therefore, unless exempted, all new students must complete the five-step matriculation enrollment process. Students should complete the process as early as possible to receive a priority registration appointment, which will increase chances of enrolling in classes of choice.

STEP ONE — APPLICATION FOR ADMISSION. All new students must file an application for admission via the world wide web at [www.ccsf.edu](http://www.ccsf.edu) or with the Office of Admissions and Records, Conlan Hall, Room E107.

NOTE: An additional application may be required for admission into specific programs. Consult the department chairperson of the program you are interested in.

STEP TWO — PLACEMENT ASSESSMENT. City College of San Francisco placement tests are administered to all new students who plan to enroll in credit classes unless they meet the waiver or exemption criteria. These tests are one way of measuring students’ skills in English or ESL, reading and mathematics. Counselors will use these results along with other information to help students decide on a program of courses that best suits the students’ educational needs and interests. The test results are used for placement purposes only; they cannot be used to prevent any student from studying at CCSF. (See “Placement Testing Waiver” for alternate way to meet the assessment component.)

CCSF placement test results achieved before March 1993 are no longer valid and cannot be used to meet course or program prerequisites. If your placement test results were achieved before March 1993, you must retake the tests if you wish to use the results to meet prerequisites.

For further information, see [www.ccsf.edu/New_Students/test.htm](http://www.ccsf.edu/New_Students/test.htm).

All students must take either the English or ESL placement test:

- **English** - For native English speakers or those whose primary language is English, OR
- **ESL** (English as a Second Language) - For those whose primary language is not English.

All students must begin Math placement testing with either the Arithmetic or Elementary Algebra Test:

- **Arithmetic** - For students who need to strengthen their basic arithmetic skills or who may be ready to study Elementary Algebra.
- **Elementary Algebra** - For students who have studied beginning algebra and may be ready to study Intermediate or Advanced Algebra.
- **College Level Math** - For students who wish to enroll in Trigonometry, Calculus, or higher. (Students must take Elementary Algebra Test first.)

Placement tests may be taken in a computerized or paper-pencil format.

- **Computerized version:** Seating for the computerized version is limited. Reservations are required. To make a reservation, call 239-3124.
- **Paper-pencil version:** Students may attend the paper-pencil version of the tests on a drop-in basis. No reservation is required.

For dates and times of both computerized and paper-pencil testing, consult the CCSF Placement Testing Schedule available in the Admissions Office, Testing Office, or online at [www.ccsf.edu/New_Students/test.htm](http://www.ccsf.edu/New_Students/test.htm)

STEP THREE — ORIENTATION. The orientation session will focus on registration activities, test score interpretation, and information about programs and services that students need to know upon enrollment. Students may also participate in the online orientation at [www.ccsf.edu/New_Students](http://www.ccsf.edu/New_Students).

STEP FOUR — MEET WITH COUNSELOR. At the counseling appointment, a student will receive a program of courses and registration information.

STEP FIVE — REGISTRATION. Registration is by appointment, the time and date of which appear on the registration ticket that each student receives.

Placement Testing Waiver
An alternate way of satisfying the assessment component is to waive placement testing if you have already taken specific tests and/or courses. Submit proof of any of the following criteria and a completed Placement Testing Waiver Form to the Office of Matriculation and Assessment, Conlan Hall 204, 50 Phelan Ave., San Francisco, CA 94112, in person or by mail.

**English**
Students may be excused from taking the English Placement Test and may demonstrate their eligibility for English 1A or 1B by attaching proof (e.g., transcripts, official test result reports) of one of the following:

1. University of California Analytical Writing Placement Exam score of 8 or higher - **Eligibility: English 1A**
2. Completion of a U.C. course satisfying the U.C. Entry Level Writing Requirement - **Eligibility: English 1A**
3. International Baccalaureate Exam scores:
   - IB High Level English A Exam score of 5 or higher – **Equivalency: English 1A and 1B completion**
   - IB Standard Level English Exam with score of 6 – **Eligibility: English 1A**
4. Any of the following SAT scores:
   - SAT Verbal (before 4/95): 510 - **Eligibility: English 1A**
   - SAT Verbal (after 4/95): 590 - **Eligibility: English 1A**
   - SAT II Writing Subject Test: 660 - **Eligibility: English 1A**
   - SAT Reasoning Test, Writing Section: 650 - **Eligibility: English 1A**
5. ACT Combined English/Writing Test with score of 30 or higher - **Eligibility: English 1A**
6. Advanced Placement (AP) Exams:
   - ENGLISH LITERATURE AND COMPOSITION:
     - Score of 3 or 4 - **Equivalency of completion of ENGL 1A**
Eligibility for English 1B and 1C and Speech 2
Score of 5 - Equivalency of completion of ENGL 1A+1B
ENGLISH LANGUAGE AND COMPOSITION:
Score of 3, 4, 5 - Equivalency of completion of ENGL 1A;
Eligibility for ENGL 1B and 1C and Speech 2
7. Completion (with “C” or higher) of English 1A - College Level
Reading and Composition course or the equivalent - Eligibility:
English 1B and 1C and Speech 2

Mathematics
Students may be excused from taking the Math Placement Test and be eligible for at least Math 60 (Intermediate Algebra) by attaching proof of one of the following:
1. Any of the following SAT scores:
   SAT I Math: 600
   SAT II Math: 550
   SAT Reasoning Test, Math Section: 600
2. ACT Math score of Level I or II or 28.
3. Advanced Placement Exam in Calculus AB or BC, Computer Science AB or Statistics score of 3 or higher.
4. EAP (Early Assessment Program) of the California Standards Test with a status of “Ready for CSU college-level mathematics course”
5. GRE (Graduate Record Exam) Quantitative Section:
   Score of 600 - Eligibility for MATH 70, 75, 80, 90 and 95
6. Completion (with a “C” or higher) of a college-level math course equivalent to MATH 40 (Elementary Algebra) or higher.

Test Retake Policy
The placement tests are used only for initial placement in English, ESL and Mathematics. Students who have not yet enrolled in English, ESL or Math can retake the placement test after two weeks for a maximum of two tests per testing cycle. Student who have completed or withdrawn from English or ESL classes may retake the tests three months after the posting of the grade received in the course. Students currently enrolled in English or ESL who wish to jump classes in these sequences must contact the English Eligibility Coordinator at 239-3574 or the ESL Eligibility Coordinator at 239-3427.

Alternative Matriculation Services
You can access alternative services for the matriculation process if you indicate the following:
1. English is not your primary language and you do not feel proficient enough in English to take the regular English Placement Test
   OR
2. You have a physical, visual, or communication limitation that might require accommodation in an educational setting
   OR
3. You have extreme difficulty with reading, writing, spelling, math, or understanding and remembering information.

Students’ Rights
Any student who feels he/she has experienced discrimination regarding the matriculation process has the right to file a grievance. Information regarding filing a grievance may be obtained at the Matriculation Office. Any student also has the right to file an appeal regarding participation in the matriculation process. An appeal may be filed at the Matriculation Office.

Enrollment Fees
Fee Schedule for Credit Classes:
(Fees subject to change)

- Enrollment fee per semester unit ..........................$46.00
- Non-Resident tuition
  per semester unit ........................................ $187.00 + $46.00
- Non-Resident tuition per semester unit
  for International students & students
  with F-1 visas ...........................................$187.00 + $46.00
- Health fee per semester (non-refundable)..............$17.00
- Web Registration fee per semester (non-refundable) $.30
- Voluntary Student Activity Fee ...........................$5.00
- Voluntary Student Representative Fee ..................$1.00

*Assembly Bill 982, eliminating health fee waiver for all students, was signed into law by the Governor of California on September 22, 2005. On January 26, 2006, Board of Trustees voted to implement fully AB982 at City College of San Francisco starting summer of 2006. The health fee for summer 2009 will be $14.00 and starting spring 2009 semester will be $17.00. The California State legislature also periodically allows the districts to increase health fee by one dollar increments. This health fee is not refundable.

Health Fee
Health fee (non-refundable): $17.00 for students registered in .50 semester unit or more.

NOTE: Students who qualify in the following categories will be exempted from payment of the health fee.
1. Students who depend exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization. (Documentation required.)
2. Students who are attending college under an approved apprenticeship training program. (Documentation required.)

Financial Assistance Program to Waive Enrollment Fee
The Board of Governors of the California Community Colleges allocates funds to help qualifying students meet enrollment fee costs. For more information about these programs, turn to the Financial Aid heading under the General Information section of this catalog, visit the Financial Aid Office in Cloud Hall, Room 324, or call (415) 239-3575.

Payment Methods and Policies
Enrollment, non-resident and international tuition, and all other applicable fees are due and payable in full at the time of registration. Cash, cashier’s checks, money orders, Visa/MasterCard, ATM or first-party checks (for the exact amount) will be accepted as payment.

Enrollment Fee Refund Policy
The enrollment fee may be refundable for full-semester courses and short term courses. The refund policy also applies to Summer Sessions intervals. Please see calendar of instruction and online class schedule for refund deadline dates.

Enrollment Fee Refund Procedures
The enrollment fee refund is not automatic. To obtain a refund for courses dropped on or before the deadline, the student must submit a completed application for refund form to the Tuition and Fees Office, Smith Hall, Room 118, no later than the last day of final examinations. Please refer to the Calendar of Instruction and online class schedule for deadline dates. Refund procedures also apply to summer session intervals.
Student Activity Fee Refund and Request to Reverse Procedures

The student activity fee may be refunded if you have paid your fees by submitting a Request for Refund form through Tuition and Fees Office, Smith Hall, Room 118. The student that has not paid for their fees may reverse the Student Activity Fee from their account by completing the Request to Reverse Student Activity Fee Form through the Tuition and Fees Office, Smith Hall, Room 118.

Nonresident Tuition Fee Refund Policy

Paid nonresident tuition will be refunded in accordance with the following refund schedule:

- **100% Nonresident Tuition Refund** for courses officially dropped during the first two calendar weeks of instruction.
- **50% Nonresident Tuition Refund** for courses officially dropped during the third and fourth calendar weeks of instruction.
- **0% Nonresident Tuition Refund** for courses officially dropped after the fourth calendar week of instruction.

Refer to the Calendar of Instruction and online class schedule for the specific refund deadline dates listed for each Fall and Spring semesters. Please call the Tuition and Fees Office for the nonresident tuition refund policies regarding short-term courses, which begin at variable times other than the beginning of the instructional calendar, summer session courses, etc.

The ultimate responsibility for dropping classes in order to receive a nonresident tuition refund rests solely upon the student. Nonresident tuition will be refunded if the drop is student-initiated or instructor-initiated. It is the student’s responsibility to: (1) check if an instructor has initiated a drop by the deadline date and (2) apply for a refund as stated in the next paragraph.

Nonresident Tuition Fee Refund Procedure

The nonresident tuition fee refund is not automatic. All nonresident students who have paid and are eligible to receive a nonresident tuition fee refund for courses dropped on or before the deadline must submit a completed Application for Refund form to the Tuition and Fees Office or the Registration Center NO LATER THAN THE LAST DAY OF FINAL EXAMINATIONS. Nonresident tuition fee refunds will be based upon the units dropped in accordance with the above prorated schedule. **Any nonresident tuition fee refund requests received AFTER this date will NOT be processed for refund.** All applications for nonresident tuition fee refund must be submitted during the current semester in which courses are dropped. No nonresident tuition fee payment credits will be carried into the next semester.

Please call the Tuition and Fees Office (415) 239-3287 for assistance and information regarding the nonresident tuition refund policy, procedures, and schedules.

Nonresident Tuition Policies and Procedures are subject to change during the 2011–2012 academic year.

In as much as City College is required by statute to report the California residence classifications of all students by the fourth week of the current semester, those students who fail to establish California residency by the fourth week of the current semester will be classified as nonresident students and be required to pay the nonresident tuition fee.

Enrollment, Nonresident and International Student Tuition Fee Credit Balances

City College of San Francisco allows all enrollment fees, nonresident and international student tuition balances to be credited to the students’ accounts, which may be utilized to pay for tuition and/or enrollment fees in subsequent school terms. The students’ account will be held for a period for two years. All balances not utilized within the two-year period will be credited to the District.

Residency Requirements

California Residence

Under the State of California Education Code, in order to establish residency, a person must pair his or her physical presence in California with the following provisions: 1) objective evidence of physical presence (one year and one day prior to the first day of instruction for the term for which he/she has applied as indicated in the Calendar of Instruction) and 2) intent to make California the home for other than a temporary purpose. There are other factors to be considered for non-resident students holding different visa types. These students are advised to contact the Office of Admissions and Records at (415) 239-3287 for clarification. Evidence of intent could include but is not limited to at least two of the following: voting in California elections, paying state income tax, obtaining a California driver's license, registering a motor vehicle, maintaining continuous residence in California. Act of intent must be accomplished for one year.

City College may determine at the time of admissions or at a later date that such students may not have met the aforementioned residence requirement set forth for all California community colleges. Such students will subsequently be assessed and billed the nonresident tuition fee per unit at the current academic year rate.

Students who have not reached the age of 18 years are regarded as minors; their residence is that of one or both parents. Therefore, a student who is a minor is regarded as a resident of California only if one or both parents couple their physical presence in California (one year and one day prior to the first day of instruction for the term for which the minor has applied as indicated in the Calendar of Instruction) with objective evidence that the physical presence is with the intent to make California the home for other than a temporary purpose.

It is the student’s responsibility to clearly demonstrate both physical presence in California and intent to establish California residence. Special residence regulations are in effect for married minors, for minors whose parents are deceased, for certain military members and their dependents, and for various others.

Continuing nonresident students at City College (with the exception of foreign students), who think that they meet the time and intent requirements necessary to establish California residency must contact the Office of Admission & Records for residency verification and adjustment.

For more information regarding California residency please call (415) 239-3287 or e-mail resident@ccsf.edu.

Residency Adjustments

Residency adjustments are not automatic. It is the student’s responsibility to initiate a residency inquiry and to provide proof of California residency. Please call the Office of Admissions & Records (239-3287) or e-mail resident@ccsf.edu for the documents accepted as verification.

Students who do not meet the residency requirements will continue to be charged the nonresident tuition as well as the enrollment fee.

Residency Appeals

Students may appeal their residency status as determined by the College through the following procedures:

1. Requests must be addressed, in writing, to the Associate Registrar, within two weeks of receipt of the notification.
Filing of Students’ Addresses
Every student must file his/her local and legal addresses with the Office of Admissions and Records. Students are required to notify the Office of Admissions and Records promptly concerning change of either address. Students may update their address on-line at http://www.ccsf.edu. Click on to Personal Information.

Student Classification

Full Time Students - Students carrying 12 or more semester units in the fall or spring semester are full-time students for that semester. A full-time student during the summer session must enroll for six or more semester units in that session.

Half/Part Time Students - Students carrying a minimum of six semester units in the fall or spring semester are half-time students for that semester.

Enrollment Limitations

Students may enroll in a maximum of seventeen (17) semester units, including physical education courses each Fall and Spring school terms. Students may enroll in a maximum of seven (7) semester units, including physical education courses during the Summer Session. Students wishing to enroll in more than the maximum units allowable must receive permission from his/her academic counselor. Approval to take more than 17 semester units will not be given unless students need such units to be candidates for graduation, or have completed their last full semester of work at the College with an average grade of B (3.00 grade-point average) or higher.

NOTE: Enrollment maximums are strictly enforced by our computer systems. Therefore, students who have received permission from their counselor to enroll in over the maximum units authorized by College policy must process those units in-person at the Registration Center, Smith Hall, Room 118.

Adding Classes, Changing Sections, Dropping or Withdrawing from Classes

After a student has officially registered in classes, the student may add a course, change a section, drop or withdraw from a course within certain dates specified in the Calendar of Instruction. Information regarding these procedures is available in the online time schedule or from the office of Admissions and Records.

A student who stops attending a course and does not file an official drop form with the Office of Admissions and Records may be marked as having failed the course by his/her instructor.

Class Attendance

Attendance at the first class session is very important. Your instructor MAY drop you if you do not attend. If you must be absent during the first few days of class, contact the instructor directly.

Do not rely on the instructor to drop or withdraw you from class for non-attendance. If you have registered for a class, but no longer attend it, or have never attended it, you must drop or withdraw from the class.

Students are expected to attend class regularly and punctually. At the first class meeting, the instructor will give students a written statement of how many times a student can miss class. Excessive tardiness may be considered equivalent to absence. If a student exceeds this number, the instructor may remove the student from the class roll with certain dates as specified in the Calendar of Instruction (see the section under Credits and Grades entitled “W” Withdrawal). If a student disagrees with having been removed from the class roll, the student can appeal to the Vice Chancellor of Academic Affairs. The student will not be allowed back into the class unless the Vice Chancellor of Academic Affairs and the instructor agree.

A student who is absent from a class for any reason is responsible for the content covered during the absence and for making up any course work that was required.

Auditing

In both the credit and noncredit programs, only students who are officially enrolled in a course may attend class. Classes may not be audited. However, some credit classes are offered through a concurrent enrollment option for students who are interested in enrolling in a class but not interested in receiving credit. For a list of credit courses offered through this concurrent enrollment option, students should contact the Continuing Education Office.

Leave of Absence Policy

A student who wishes to drop/withdraw from all courses should file a Leave of Absence. If the student registered for classes in the term he/she is requesting the Leave of Absence, the student’s academic transcript will reflect “Leave of Absence” (see Calendar of Instruction for last day to file).

Students may take a maximum of one (1) semester Leave of Absence. If a student is requesting a Leave of Absence after enrolling in classes, the student will be submitted a registration appointment for the following school term and his/her registration will reflect that of a continuing student. If the student requests a Leave of Absence without attempting to register for classes for the school term, the student must re-submit an application for admissions and his/her registration priority will reflect that of a re-admitted student which has a lower priority than that of a continuing student.

If the deadline for requesting a Leave of Absence has expired and the student requests a waiver of College policy due to extenuating circumstances, the student must submit a Petition for Late Withdrawal to the Dean of Student Advocacy, Rights and Responsibilities. The student will be expected to provide verifiable documentation to support the extenuating circumstances.

Students who have a Hold on their academic records will be denied a Leave of Absence until all HOLDS are cleared.

Student Email

All City College credit students are issued a CCSF GMail address, provided by Google. All official CCSF email will be sent to the CCSF GMail address. By using the GMail address, CCSF can ensure that students receive registration, financial aid and other important information. Students have the option to forward CCSF GMAIL messages to an email account which they check regularly.

Students can find information about their CCSF GMail address and password by:

1. Logging on to Web-4
2. Clicking on the Personal Information tab.
3. Scrolling down

Additional information may be obtained by phone from GMail Help Desk at 415-239-3987, by email at mailhelp@mail.ccsf.edu, or from the CCSF GMail FAQ website at http://ccsf.edu/gmailfaq. The FAQ website has details for logging on and forwarding email to a different address.
Students who object to using Google software should go to the Admissions and Records Office to request City College notifications via hardcopy.

**Admissions Policy (Noncredit Classes)**

Anyone 18 years or older can enroll in a noncredit class. Students may enroll in most classes by attending the first class meeting. Provided space is available, students may also enroll in most classes any time during the semester because these classes are open entry-open exit. Class and program information may be obtained from the individual campuses.

Note: Students enrolling in ESL, Citizenship, or Transitional Studies classes, and many Business, Trade & Industry, Child Development & Parent Education, or DSPS classes must participate in the Matriculation Services outlined below.

**Matriculation Services for Students Enrolling in Noncredit Classes**

Matriculation is a process that enhances student access to the California Community Colleges and promotes and sustains the efforts of students to be successful in their educational endeavors. Noncredit matriculation services, minimally, include:

- **Assessment** (of English or ESL and math skills, career interests)
- **Orientation** (to noncredit programs and procedures)
- **Counseling** (to assist students in identifying educational and career goals and developing an appropriate program of study)

Please contact the Admissions and Enrollment Office at the campus that you wish to attend for more information.

**How to Enroll in Free Noncredit Courses**

Students can earn special certificates and/or diplomas by enrolling in the noncredit division. Courses include Adult Basic Education (ABE), Business, Child Development and Family Studies, Citizenship, Consumer Arts and Sciences, Consumer Education, Disabled Students Programs and Services, English as a Second Language (ESL), GED, High School, Older Adults, and Trade and Industry.

**Noncredit division courses are tuition free.** However, students are expected to buy books and supplies. A few courses require the purchase of additional materials or the payment of a materials fee.

For the most accurate and up-to-date enrollment information, please contact the campus offering the course you want to take. The locations and phone numbers are listed on the inside front and inside back covers of the class schedule. Counselors are available to help you select and enroll in classes.

New students are required to complete a Noncredit Application. You may complete a Noncredit Application by 1.) Going to [www.ccsf.edu](http://www.ccsf.edu) on your web browser; 2.) Clicking on the Admissions/Registration link; 3.) Clicking on noncredit admissions link; 4.) Clicking on noncredit application link. Students may also pick up an application at the campus they plan to attend and submit it to the Office of Admissions & Enrollment.

Programs such as ESL, Citizenship, Adult Business Education/High School, DSPS, Child Development and Family Studies and short-term vocational courses such as Office Technology and Trade and Industry require that students go through the matriculation process. Please contact the Admissions & Enrollment office at the campus that you wish to attend for more information.

In many cases, you can enroll in classes by attending the first class meeting. You can also enroll after the start of the semester. Speak to a counselor or the instructor.

IMPORTANT: Students holding F1/F2 and B1/B2 Visas are prohibited from enrolling in noncredit courses.

**Eligibility for Noncredit High School Program**

Students must be 18 years old or older, or if between 17 and 18 years old they must have an exemption from their home school district.
The College recommends for employment and makes a special effort to find positions for students who receive the Associate Degree in a career-technical field, with the exception of those trained for positions for which a federal or State license or other certification is required. The College extends its full services to these students after they have obtained licenses or certification.

Graduates of degree and certificate curricula are employed extensively in business, industry, civil service and in occupational capacities in the professions. Many have earned promotion to supervisory and executive positions and a number successfully manage their own business.

Course sequence in degree and certificate curricula in the Career and Technical programs are such that students develop occupational skills early in their training. The College is thus often able to help students find employment, even though they have been unable to complete their studies, entirely on the basis of their preparation in the program.

General Education. In addition to offering specialized career and technical training for employment, the College, in keeping with its objectives, to broaden students' educational background. The degree curricula in the Career and Technical Programs therefore devote a considerable part of their content to general education. A number of certificate curricula also include courses in general education. Because of the considerable variation in the general education program in the many occupational curricula, it is not feasible to include in this section a statement regarding the required and elective courses in general education in each curriculum. For information concerning these requirements see the "Graduation Requirements" section of this catalog.

Specialized Career and Technical Courses. Career and technical programs offer specialized courses designed for each occupation. Students are trained in skills that are necessary for them to obtain a job upon completion of their selected program. These specialized courses are updated to meet changing workforce demands.

Transfer. Although the College does not offer career and technical training primarily for transfer students, various universities and colleges may accept coursework as credit toward completion of a major or as elective credit.

Work Experience Education. A variety of structured work-based and school-based learning experiences is provided through a cooperative agreement between the student, the employer, and the instructor in several academic and career and technical courses. Students who fulfill the agreement achieve several job objectives and earn transferable college units. The College develops and monitors employment and internships for career exploration in the following departments: Administration of Justice and Fire Science; Aircraft Maintenance Technology; Architectural Technology; Automotive Technology; Broadcast Electronic Media Arts; Business including specialty programs in International Business, Paralegal/Legal Studies, Real Estate, and Travel and Tourism; Child Development; Cinema; Consumer Education, including Nutrition Assistant; Culinary Arts and Hospitality Studies; Computer Science; Computer Networking and Information Technology; Environmental Horticulture and Floristry; Fashion; Graphic Communications; Health Care Technology including specialty programs in Emergency Medical Technician, Health Information Technology, Medical Assisting, and Pharmacy Technician; Health Education, including Community Health Worker; Interdisciplinary Studies, Multimedia Studies; Journalism; Library Information Technology; Photography; and Radiation Therapy Technology.
The Business Department offers general work experience courses (300 series and 800 series) designed to help students acquire necessary and desirable workplace habits, attitudes, and skills.

In addition, career exploration through structured work experiences is offered in Asian American Studies, Biology and Earth Sciences, and Psychology.

For enrollment requirements, refer to catalog course descriptions.

**Transfer Program**
Credit earned in City College courses is transferable to universities and colleges, but not on a uniform basis, since the transfer policies of these institutions vary. Students who intend to transfer may satisfy lower division requirements for the professions or the liberal arts, and transfer to baccalaureate degree-granting institutions.

Articulation agreements which list detailed information concerning specific majors and which describe course transferability and applicability between City College of San Francisco and baccalaureate degree institutions are available online at [www.assist.org](http://www.assist.org) and at [www.ccsf.edu/artic](http://www.ccsf.edu/artic).

**Specific Programs Of Study**

**Programs for High School Students**
We offer three types of programs for high school students. For more information on any of these programs, please check with your school counselor or call Admissions and Recruitment at (415) 239-3557.

- **Dual Enrollment Program.** This program allows students to earn high school credits while earning college credits simultaneously. Students are enrolled both in their high school and at CCSF.
- **Concurrent Enrollment Program.** This program allows high school students to enroll in college level courses and receive college credits. Students must have a minimum of 2.0 GPA with 120 high school credits. Courses offered cannot be a part of the high school student's basic education plan of courses required for high school graduation. The courses must be above and beyond graduation requirements. There is no cost for college tuition.
- **High School Credit Program.** This program allows students to receive high school credits and/or equivalency.

**Continuing Education Program**
Continuing Education (CE) is the extended learning program of CCSF. It is a not-for-credit, fee based, self-supporting program offering short term classes and workshops in a wide variety of areas. Class meetings are generally held on evenings and Saturdays. Workshops vary from two to thirty-two hours in length. CE receives no state funding; student fees cover the cost of instruction and all related expenses. Classes and workshops are held in the following subject areas: art, business and finance, computer software applications, food and wine, foreign language, health and fitness, home and garden, music, ornithology, personal development, photography, professional re-licensing, test preparation, theater arts, and writing. On-line classes are also available. For information on these visit [www.ed2go.com/ccsf](http://www.ed2go.com/ccsf).

Pre-registration is encouraged for Continuing Education classes and workshops; however, some space may be available at the first class meeting. Students may register online at [www.ccsf.edu/contined](http://www.ccsf.edu/contined). Scroll down the left-hand side of the screen and click on “online registration”.

Registration information and a class schedule may be obtained from CCSF Continuing Education Office, Fort Mason Center, Laguna St. and Marina Blvd., Building B, SF 94123. Telephone: 415-561-1860. Fax: 415-561-1849.

**Contract Education Program**
It is the policy of the San Francisco Community College District to build partnerships with business, industry, government, trade unions, and community agencies. In support of this policy, a unified, District-wide effort has been established to develop and implement not-for-credit and credit contract educational programs.

Contract education consists of those educational services which the District provides for employees and other individuals sponsored by public, private, or community organizations, and for which the District charges a fee to the sponsoring organization. Contract education is an alternative vehicle through which the District can serve all educational needs. Contract education expands access to higher education and, at the same time, affords the faculty an avenue to expand their professional horizons (267-6545).

**Ethnic Studies**
Through the four ethnic studies departments, the College seeks to promote greater understanding of the culture, history, language, and contributions of African Americans, Asian Americans, Latin Americans, and Filipinos. The Program is also designed to serve the broad educational needs and interests of the student body, to provide the courses needed for a general major in ethnic studies, and to provide the curricula necessary to satisfy the degree requirements of the various departments of instruction in ethnic studies.

- **Admission.** Enrollment is open to all students, regardless of their ethnic origin, whether they desire to complete a major or to take a particular course or group of courses. In some instances, primarily in courses such as English, foreign languages, and social studies, students are required to satisfy prerequisites before enrolling.

- **Curriculum.** The courses offered by the African American Studies Department (AFAM), the Asian American Studies Department (ASAM), the Latin American and Latino/a Studies Department (LALS), and the Philippine Studies Department (PHST) are listed under the above titles in the “Announcement of Programs and Courses” section of this catalog.

**Family Studies**
Noncredit courses include infant development, preschool years, school age child, adolescents and their families, child-parent relationship, parents in the business community, state preschool, preschool parent participation, child development centers, and foster parent training. Classes are free and offered in convenient locations in the city. For enrollment information, call 452-5905 or 239-3172 or visit the Orfalea Family Center Bldg. 200 or, the Multi-Use Bldg., MUB 249 on the Main Campus. For enrollment information in CCSF Child Development Centers, call 561-1895. Training for foster parents and those interested in their issues/concerns is available through a special grant from the California Community College State Chancellor's office. For further information call 239-3172 or visit our website at: [www.ccsf.edu/Departments/Child_Development](http://www.ccsf.edu/Departments/Child_Development).

**Honors Program**
The Honors Program offers students an enhanced educational experience along with potential transfer and scholarship benefits.

Honors courses provide students with an enriched curriculum either in:
- specific sections of core transfer courses or
- honors contracts (Students complete an agreement with the faculty member for Honors work in addition to the regular course work.)
Transfer Benefits of Honors Work. In either case, the course is designated "Honors" on the student's transcript.

Many universities and colleges recognize the academic achievement represented by Honors courses with preferential transfer tracks, supplemental points in transfer evaluation, scholarships for honors students, etc. Successful completion of honors course work can be a big asset especially in transferring to programs in heavy demand at universities.

CCSF Honors students may also look forward, after transfer, to participation in honors programs in many universities and colleges.

Eligibility for Honors Courses. While any CCSF student may take an honors course, to participate fully in the Honors Program and have your work recognized on a certificate, you need to meet ONE of the following criteria:

- College GPA of 3.0 or higher
- SAT score of 1650 (1100 if pre-Spring 2005) or higher, ACT score of 24 or higher
- TOEFL score of 500 (PB+), 61 (IB+), or 173 (CB+)
- Score of 4 or higher on AP classes in high school

To remain in the program, you must maintain a GPA of 3.0 or better. To receive an Honors designation on a certificate, you must complete at least 15 units in Honors. By completing at least 15 units via at least five honors classes you may also be eligible for our Honors Transfer Partnerships, which will give you preferential treatment when applying for a variety of colleges and universities. Most of these partnerships require that you do no more than 9 of your 15 units of honors credits during your last semester at CCSF. Please note that while completing 15 units is an admirable goal, it is not a requirement for membership. The word "Honors" will appear on your transcripts next to all honors classes you complete, even if you do not complete all 15 units.

UCLA Transfer Alliance Program. If you are applying for the UCLA Transfer Alliance Program, at least 6 of the 15 required Honors Program units for certification must be completed by the end of the fall semester the academic year before the student wants to begin at UCLA. So for example if a student wants to start at UCLA in the fall of 2011, s/he must complete at least 6 honors units of the required 15 honors units by the end of fall 2010 in order to get TAP certified. The remaining 9 units can be completed in the spring. It should also be noted that in order to be eligible for TAP certification, the student's "UC GPA" must be at least a 3.0. TAP certified students are eligible for priority admissions to the UCLA College of Letters and Science and may be eligible for UCLA honors scholarships. Please visit http://www.ugeducation.ucla.edu/tap/ for additional details on the UCLA TAP Program.

Honors Courses Offered. Check the Time Schedule for the list of courses in honors each semester. Look under "Honors Courses." To date, honors courses at City College have included the following instructional areas: anthropology, art, Asian American Studies, biology, broadcasting, business, Chinese, economics, English, French, geography, interdisciplinary studies, Japanese, mathematics, music, nutrition, political science, psychology, sociology, Russian, Spanish, speech, and Women's Studies.

The Honors Program instructors will work with all CCSF students on honors projects with some exceptions. Some instructors are so popular with honors students that they cannot work with everyone that wants to do honors projects with them. They may give students a test and work with only the top scorers. Others may have various other criteria. Some instructors will not work with students on honors projects who have not earned a CCSF GPA of 3.0 or higher (your GPA goes on the honors contract form so that is how they know about it). The best way to find out is to ask them. The CCSF website (http://www.ccsf.edu/Info/Dir/dir.shtml) has every instructor's e-mail address and phone number on it so students can ask them.

For questions concerning the Honors Program,please call the Honors Office Batman 572 at (415) 239-3376 or e-mail skudsi@ccsf.edu. Additional information is also featured on our web page: http://www.ccsf.edu/Departments/Honors.

Intensive English Program for International Students

City College of San Francisco offers an intensive English program for college-oriented students on F-1 (student) visas. The program is one semester (18 weeks) or nine weeks in length, 20 hours per week, and prepares the student for further academic study and to achieve a higher score on the TOEFL examination. A 4 or 8 week summer program is also available. For additional information, contact the Intensive English Program, City College of San Francisco, 50 Phelan Avenue, Box C-208D, San Francisco, CA 94112, USA or call (415) 239-3895 or visit the CCSF website: www.ccsf.edu/international.

E-mail: international@ccsf.edu

Interdisciplinary Studies

The Interdisciplinary Studies Department is committed to innovation, diversity, and collaboration. The College provides interdisciplinary instruction through courses in multimedia as well as in those covering various aspects of the biological, physical, social, and behavioral sciences, humanities, and ethnic studies. The courses are listed under "Interdisciplinary Studies" in the "Announcement of Programs and Courses" section of this catalog.

Labor and Community Studies Program

Credit and noncredit classes in employment rights, leadership development and power relations in society are offered throughout the year. Classes include organizing for economic and social justice, collective bargaining, shop steward training, working class history, health and safety, environmental justice and social action theater and music.

Students can earn certificates or an Associate in Arts.

Lesbian, Gay, Bisexual, and Transgender Studies

In the fall of 1972, an English Department instructor launched one of the first Gay Literature courses in the country. The durability and popularity of Gay Literature resulted over time in the development of gay and lesbian identified courses in other departments of the College and, in the spring of 1989, to the establishment of the first Gay and Lesbian Studies Department in the United States. In Spring 1996, the name of the department was changed to Gay, Lesbian and Bisexual Studies. In 2008, the name was changed again to Lesbian, Gay, Bisexual, and Transgender Studies. The courses offered in this department explore the social and cultural dimensions of the phenomenon of homosexuality and include bisexuality and transgenderism. They aim to promote objective understanding of the complexity of the gay, lesbian, bisexual, and transgender experiences while serving the broad educational needs of the student body. The department hopes to increase social awareness with regard to the gay, lesbian, bisexual, and transgender subcultures while recognizing the contributions of their members to society at large.

Noncredit Programs, Services, and Resources

Students enrolled in noncredit courses have access to a variety of services which are designed to help each student attain educational and career objectives. There are counseling services for students seek
GED courses taught in Spanish, and courses to which students may be referred include opportunities for individual tutoring, and life enrichment. Courses may be small or large group instruction, college credit courses, vocational training programs, the workplace, and local public agencies. The City College of San Francisco GED Testing Center, located at the John Adams Campus at 1860 Hayes Street. Further information regarding testing, registration or GED fees, call (415) 561-1824.

Older Adults Classes. Taught at thirty different locations in San Francisco, no-fee classes are available in a variety of subject areas including art, music, literature, health, writing, theater, computers and more. A brochure with the schedule of classes and locations is printed each semester and is available by calling the CCSF Older Adults Department at (415) 452-5839.

Transitional Studies. The Transitional Studies Department offers noncredit classes that are free of charge, offered at various campuses during the day, evenings and Saturdays. Courses include a wide variety of High School subjects, GED Preparation and Adult Basic Education in reading, writing, math and study skills. In the Transitional Studies Department, students may earn the CCSF HS Diploma, transfer high school credits to other schools, study to pass the GED, and improve academic skills. Student goals may be to prepare for academic college credit courses, vocational training programs, the workplace, and life enrichment. Courses may be small or large group instruction, individualized, and may include computer assisted instruction and field trips. Programs include opportunities for individual tutoring. GED courses taught in Spanish, and courses to which students may enroll at any time during the semester. Telephone: (415) 920-6131.

Online Courses
Online courses provide students with the opportunity to learn in an environment that is physically remote from their instructors and classmates making it easier to balance higher education goals with other responsibilities. Students may choose to combine online learning with on-campus classes or take an entire course load online. City College offers over 100 online credit courses, many meeting AA/AS degree, certificate, major and transfer requirements. Online courses are as demanding as lecture courses. Students must be self-motivated, possess effective study skills, and be able to work independently.

A computer with Internet capability is the primary tool used for online courses. Insight (Moodle) is the Learning Management System (LMS) CCSF uses for all online courses. Online courses require textbooks, assignments exams, interaction between students and the instructor, and offer other tools that support student learning. Some online courses require students to come to a CCSF campus for orientations and mandatory meetings. Students are strongly encouraged to have basic experience with the internet and regular access to a computer. Some courses may require software downloads as well as minimum hardware and software requirements.

Registration for online courses is the same as for face-to-face classes. Information on course offerings is listed in the printed and online version of the Class Schedule as well as at http://www.ccsf.edu/online. Visit the website for a list of online courses, for guidelines for successful online learning, and to take a short self-evaluation to decide if online classes are right for you.

Study Abroad Programs
The Study Abroad Programs Office provides students with the opportunity to study and live in another country while receiving CCSF credit and continuing to work towards their academic goals. Both semester length and short term programs are offered. Students are encouraged to explore the use of financial aid and scholarships in order to help finance a study abroad experience. International study provides unique insights into culture, language, history and oneself. Participants will gain a more global perspective on cultural, international, political, and economic issues; interpersonal relationships; and career choices. For more information contact the Study Abroad Coordinator by calling 239-3778, or visiting Cloud Hall, Room 212. Students can request program brochures by e-mailing studyabroad@ccsf.edu. Program information and brochures are also available on the program website: www.ccsf.edu/studyabroad.

Telecourses
Telecourses are college courses offered via television. By enrolling in a telecourse, students can complete graduation area requirements needed for a general AA/AS degree, as well as complete requirements to transfer to the CSU and complete IGETC requirements. Telecourses are as demanding as lecture courses. Students must be self-motivated, possess effective study skills, and be able to work independently.

Telecourses are broadcast on the San Francisco educational access cable Channel 27 and Channel 75. Students take telecourses primarily by watching their video lessons on EATV-Channel 27. In addition, students attend three required meetings on the City College Ocean Campus—and orientation, a midterm, and a final. Telecourses require textbooks, assignments, exams, interaction between students and the instructor, and offer other tools that support student learning. The instructor of each telecourse is available via telephone during scheduled office hours every week in order to answer questions about the course. Each video lesson is available in the Media Center in the Rosenberg Library on the Ocean Campus. Most courses are available for rent from private firms. Support material and newsletters for each class are sent directly to students’ mailing address by the instructor of the class.

Registration for telecourses is done the same for a face-to-face course. Textbooks are available in the CCSF bookstore. Fees for the telecourses are the same as the fees for credit courses. More information on course offerings is listed in both the printed and online version of the Class Schedule as well as at http://www.ccsf.edu/Telecourses.
Working Adults Degree Program
The Working Adults Degree Program is a fast-paced degree program for working adults offered at the Mission and Southeast Campuses. It is designed for students to attain their Associate degree while fulfilling general education requirements that are transferable for a Bachelor's degree. Classes offered at these neighborhood locations are chosen to meet as many requirements as possible for both degrees. Every effort is made to meet the needs of the students enrolled in this program. The WADP is characterized by a high degree of support for students, priority registration, and convenient daytime, evening, and weekend classes. In addition, students have the benefit of attending classes in a smaller setting. For further information, call (415)920-6010 for Mission Campus and (415)550-4300 for Southeast Campus. You may also explore the website at http://www.ccsf.edu/WADP.

Women's Studies
In Spring 1971, City College of San Francisco offered its first course directed specifically to women's interests and educational objectives - Interdisciplinary Studies 20, Women in the Modern World. Its success led to the institution of the Women's Studies program, one of the first in the nation. The program's 30 plus courses, taught in various disciplines, focus on the complex role of women in society. Women's Studies courses are open to all students. In some instances, students are required to satisfy prerequisites before enrolling. Please see "Women's Studies" in the "Announcement of Programs and Courses" section of this catalog for details.

Other Areas Of Interest
Concert and Lecture Series
A wide variety of concerts and lectures are presented by professionals each semester. These programs are free, and the entire campus community and the community at large are invited. Students, faculty, administrators and staff may submit suggestions for programs to the Concert Lecture Series Committee for its consideration. For more information call 239-3580.

Course Offerings to Fit Your Schedule
The College provides semester-length as well as shorter-term credit and noncredit courses at times and places which are designed to be convenient to students. Instruction is offered days, evenings and weekends. In addition, there are telecourses which can be viewed on your tv at home and online courses which can be accessed through your computer. All of the College's offerings for the fall, spring, and summer terms are listed in their respective Schedule of Classes which includes all forms necessary for you to enroll at City College of San Francisco. Easy online enrollment is also available at www.ccsf.edu.

Fitness Center
Fitness Center provides a full-body workout utilizing the state-of-the-art Fitlinxx computerized system that is attached to Life Fitness strength machines and cardio machines, including programmable treadmills, elliptical trainers, and bikes. The Fitness Center staff are CCSF instructors in the Physical Education and Dance Department, with a range of experience including strength, sports, dance, pilates, yoga, aerobic fitness, and rehabilitation techniques, and all have received additional training on the Fitlinxx system. Students must enroll in PE 200B/C in order to use the Fitness Center.

Intercollegiate Athletics
Intercollegiate athletics are offered for men and women. College teams compete in the Coast Conference and with teams from other schools. Intercollegiate sports include baseball, basketball, cross-country, football, soccer, softball, swimming, tennis, track, badminton and volleyball.

Intercollegiate Speech and Debate Team
The CCSF Speech and Debate Program is a nationally ranked team that participates in intercollegiate tournaments locally, statewide, and nationally. The Speech and Debate Team is a member of the Northern California Forensic Association, the California Community College Forensic Association and the Phi Rho Pi Forensic Honor Society. Students have the opportunity to compete in all 11 individual events as well as various styles of debate. Events include informative, persuasive, impromptu, prose, poetry, duo, parliamentary debate and Lincoln/ Douglas debate. For more information call Dr. Kristina Whalen at 452-4842 or email at kwhalen@ccsf.edu. See courses listed under “Speech Communication.” The Speech and Debate Program is located in Cloud Hall, Room 208B.

Lost and Found Articles
Persons who find lost articles on campus are requested to bring them to the Community College Police Department, Cloud Hall, Room 119. Persons who have lost articles may check to see if they have been recovered at the Community College Police Department. Due to limited storage space, unclaimed items may be purged every six months.

Performing Arts
Performances given by students enrolled in courses in music, dance, and theatre arts contribute much to the enrichment of campus life. The Music Department schedules both professional and student recital series each semester, presenting an average of two concerts weekly. Audiences from the College as well as the community-at-large are invited to attend without charge.

Frequent campus and community programs are also offered by the College dance classes. Dancers of all degrees of ability may study and perform a variety of dance styles, including classical, modern, jazz, folk, ethnic, social, tap, and square dancing. The Theatre Arts Department offers several major productions each year in the Diego Rivera College Theatre. Participation is open to all students regardless of experience and background. In addition, smaller dramatic productions are developed each semester that may include dinner theatre, club sponsored productions and use of the Venue 222. Occasionally, all three performing arts areas cooperate to produce a major production.

Ocean Campus Boundaries
The City College of San Francisco Ocean Campus is bounded on the north by Judson Avenue and Havelock Street; on the east by U.S. Interstate 280; on the south by Ocean Avenue; and on the west by Phelan Avenue.

Public Transportation
The City College Ocean Campus is two blocks from BART's Balboa Park Station and the end of the J-Church line. It is also served by the following MUNI lines direct to the campus: K-Ingleside, 36-Teresita, 43-Masonic, 49-Van Ness and 9X, 9AX, 9BX Bayshore Express. The following buses stop within walking distance of the campus: 23-Monterey, 26-Valencia, 29-Sunset, and 54-Felton. For additional route information contact BART and MUNI directly.
**Student Housing**
The College does not provide residences for students. The Housing Bulletin Board is located in the Student Union, where postings can be found for students who seek rental housing. CCSF does not assume any responsibility for the condition of the rentals listed.

**Symphony Forum**
City College students may attend Wednesday and Friday evening concerts of the San Francisco Symphony Orchestra on a season-ticket basis. This activity is made possible through the San Francisco Symphony Forum, a self-governing student organization representing many Bay Area collegiate institutions. In addition to concert attendance, students are offered the opportunity to meet guests of the Orchestra, both on the various campuses as well as after performances in Davies Hall. City College also sends students to usher at many performing arts houses in exchange for free admittance to the shows. More information can be obtained from Creative Arts Building, Room 213.
STUDENT FINANCIAL RESOURCES

Financial Aid, CalWORKs, and EOPS
Student Financial Resources are the offices of Financial Aid, CalWORKs, and EOPS Office. Together they serve students who need assistance in meeting the basic cost of their education. This section outlines the application procedures and how student need and eligibility are determined. Because funds are limited, federal and state regulations require that Financial Aid and CalWORKs funds go to students who demonstrate financial need. Funds available through the Scholarship Office are competitively awarded and based on the criteria specified by the donor.

Financial Aid
How to Apply for Aid
1. Apply for admission to the College.
2. File Free Application for Federal Student Aid (FAFSA) on the web at www.FAFSA.ed.gov. A new application must be filed every academic year a student wishes to receive financial aid.
3. Complete and submit all forms and documents requested by the Financial Aid Office.
4. The Financial Aid Office staff evaluates the documentation and processes your Financial Aid award. Awarding priority is given to early applicants.

Eligible students will be offered a financial aid package consisting of a combination of grants, work, and/or loans. Along with the Award Letter, the Financial Aid Office will mail disbursement schedule to financial aid recipients.

College Policy on Financial Aid
All financial aid at CCSF is administered in accordance with policies and philosophies which have been established nationally. The basis of such programs is the belief that students and their parents have the primary responsibility to meet educational costs and that financial aid is available only to fill the gap between the family's and/or student's contribution and allowable educational expenses. The amount of expected student or family contribution is determined by a careful analysis of financial strength: income and net assets which the family may have versus the allowable expenses.

Educational expenses which are considered a basis for establishing student need include nonresident tuition, fees, books and supplies, room, board, transportation, and personal expenses. The CCSF Financial Aid Office has an established student budget to reflect the costs of each of these items based on a statewide cost survey.

General Eligibility for Financial Aid
Specific eligibility requirements vary from program to program. The following criteria apply to all financial aid programs. To receive financial aid, a student must:
1. Be accepted and enrolled as a regular student in an eligible program leading to an Associate Degree, an eligible certificate, or transfer to a four-year college or university;
2. Be a U.S. citizen or an eligible non-citizen;
3. Demonstrate financial need for need-based programs;
4. Maintain satisfactory academic progress in a course of study according to the standards and practices of CCSF;
5. Not owe a refund on a Federal Pell Grant, Federal SEOG, ACG
6. Not be in default on any Federal Perkins, Federal Stafford Loan, Federal Direct Loan, or California Loan to Assist Students/PLUS;
7. Male applicants between the ages of 18 through 25 must be registered with Selective Service;
8. Have a valid Social Security Number;
9. Must not have federal benefits suspended due to drug offense conviction;
10. Have a high school diploma or equivalent or demonstrate the ability to benefit from the instructions provided by the College or complete six degree applicable units at CCSF or transfer applicable units completed at other colleges or universities.

Ability to Benefit Policy
To demonstrate the “ability to benefit,” and thereby become eligible to receive Title IV (federal financial aid), the student must pass the federally approved Ability to Benefit Test at City College of San Francisco (CCSF). Please call the Testing Office at 415/239-3129, Conlan Hall, Room 203, for information regarding Ability To Benefit testing sites and schedules or check CCSF website.

Determining Financial Need
The amount of financial aid is subject to available federal and state funds. The type of aid and amount received by each student will be determined by the Financial Aid Office. Need-based financial aid awards are based on demonstrated financial need which is the difference between allowable educational expenses and the family’s expected contribution (or the student’s own expected contribution) and other resources.

Contribution is determined from the financial aid application and other required documentation, such as the 1040 Federal Income Tax Return of the parents and/or student. All information is held in strictest confidence.

Satisfactory Academic Progress
Federal regulations require that all students receiving financial aid comply with the financial aid Satisfactory Academic Progress Policy established by the College. To receive financial aid, students must maintain the standards described below.

Length Of Eligibility – City College of San Francisco (CCSF) has established a maximum time frame of 90 cumulative units attempted. Students are no longer eligible for financial aid after attempting 90 units, whether or not financial aid was received. All transferred units are also counted in the 90 units.

Grade Point Average (GPA) – To maintain satisfactory academic progress and remain eligible for financial aid, students must maintain a minimum cumulative GPA of 2.0.

Unit Completion Requirement – CCSF will review each student’s record at the end of each academic semester. To maintain satisfactory academic progress, students must have completed a total of 67% of all the units attempted.

For noncredit students the requirements for satisfactory academic progress are:
1. The student must keep a cumulative 2.0 grade point average or a passing grade in all eligible classes enrolled each semester.
2. The student must maintain at least 80% attendance in all hours he/she declares each term. Repeated classes are not included.

Right to Information
Students have the right to a full explanation of CCSF financial aid programs, policies, and procedures.

For information on academic programs and facilities, faculty, accreditation, refund policies and non-discrimination policies, see appropriate section of this Catalog.
Financial Aid Programs

Financial aid consists of programs which are funded and regulated by the federal and state governments. The programs are of four different kinds: Grants, Work, Loans, and Fee Waivers.

Grants

A grant is money which students do not have to work for or repay. Students with bachelor's degrees are not eligible for grants.

Federal Pell Grant - Maximum grant amount may exceed $5000 depending on federal allocations. Eligibility restricted to 18 semesters or equivalent.

Federal Supplemental Educational Opportunity Grant (FSEOG) - A grant is awarded at CCSF according to a formula based on student need and generally will range from $100 to $230 per academic year.

Board of Governors Fee Waiver (BOGW) - A financial assistance program to offset enrollment fees, the Financial Aid Office determines student eligibility based on state guidelines and authorizes the Tuition and Fees Office to use BOGW funds to waive the fee charges. BOGW is available to California residents only.

Cal Grant: A, B, and C - The State of California, through the Student Aid Commission, offers and administers several grant programs for undergraduate students. These include Cal Grant A, B, and C. A student can receive only one type of Cal Grant.

Cal Grant A is to be used when a student transfers to a four-year institution in California. This grant provides tuition assistance. If the student qualifies for a Cal Grant A and wants to attend a public community college, the Student Aid Commission will hold the Cal Grant A award until the student transfers to a four-year college.

Cal Grant B is awarded to disadvantaged students at the community college. The student can receive up to $1551 in Cal B Grant per year.

Cal Grant C helps vocational program students with tuition and training costs. Students enrolled in eligible Vocational Programs may receive up to $576 per year.

Federal Work Study Program

The Federal Work-Study Program offers jobs for students with financial need, allowing them to earn money to help pay education expenses. The program encourages community service work and work related to the student's course of study. Students who receive a Federal Work Study offer may contact the Career Development and Placement Center in Science Hall 127 regarding job placement. If the student works off campus, the employer will usually be a private non-profit organization or a public agency, and the work performed must be in the public interest. The amount earned cannot exceed student's total Federal Work Study award.

Loans

Loans are monies which are borrowed now and must be paid back after leaving school.

Federal Perkins Loan - This loan is awarded at CCSF according to a formula based on student need and generally will range from $200 to $500 per academic year depending on the loan collection. A student may borrow a cumulative total of $27,500 throughout his undergraduate career.

The Federal Perkins loan comes with a 5% interest, to be repaid nine months after the student borrower drops below half-time, withdraws, or leaves school. A loan may be cancelled in part or entirely under certain circumstances.

The Student Account Services, located in Bungalow 619, is responsible for collections of the Perkins (NDSL) loans.

Federal Direct Loans - Direct Loans are originated by the Financial Aid Office and are obtained from The US Department of Education. City College has a multi-disbursement schedule for the issuance of checks. Interest on the Direct Unsubsidized Loan accrues on the unpaid principal balance on each loan from the date of disbursement by the lender until the entire principal balance is paid in full. Students do not have to demonstrate financial need to qualify for Direct Unsubsidized Loan. Interest on the Federal Subsidized Direct Loan is paid by the federal government while borrowers are enrolled in school or in deferment. Students have to demonstrate financial need to qualify for Subsidized Stafford Loan.

Repayment on the Federal Direct Loan begins six months after the student borrower drops below half-time, withdraws, or leaves school.

Noncredit Financial Assistance

Financial assistance consists of grants and student employment programs offered singly or in combinations to students who demonstrate financial need. The purpose of financial assistance is to provide monetary assistance to students who could benefit from furthering their education but cannot without financial assistance.

To be eligible for financial assistance, students must be enrolled in any of the following noncredit certificate programs which qualify for these funds:

Programs Hours
Accounting Assistant ................................. 615-645
Administrative Assistant .............................. 810-885
Baking and Pastry ...................................... 1020
Basic Business Skills for Medical Office ............ 720
Building Operation-Maintenance and repair ....... 735
Clerical Accounting ..................................... 720
Clerical Support Specialist ............................ 675-750
Computer Application for Business ................. 705
Computerized Accounting Specialist ............... 705-735
Construction Trade .................................... 636
Culinary and Service Skills Training (CSST) ..... 1020
Industrial Mashinery .................................. 1080
Microsoft Office Specialist ......................... 645
Vocational ESL Office Training ...................... 810

Financial Aid Payment of Nonresident Tuition and Enrollment Fee Charges

After the Office of Tuition and Fees determines student nonresident tuition and enrollment fee charges, payment will be drawn from the student financial aid award. Charges which are not met with financial aid are the responsibility of the student.

Return of Title IV Funds

In accordance with federal law, students who receive federal financial aid and withdraw from all their classes before completing at least 60% of the semester will have their financial aid eligibility recalculated based on the percentage of the semester completed, and will be required to repay any unearned financial aid they received. Students who complete 60% or more of their classes will not be required to pay.

Withholding of Services to Students in Default on Loans or Owing Refunds

If a student or former student is in default on the Title IV loan (Federal Family Education Loan, formerly Guaranteed Student Loan) or on a Federal Perkins Loan (formerly National Direct/Defense Student Loan) or owes a refund on a grant (Pell, FSEOG), the District shall withhold the following services: provision of grades, provision of transcripts, and provision of diploma.
The term "default" is defined by the U.S. Department of Education as the failure of a borrower to make an installment payment when due or to meet other terms of the promissory note.

The services withheld may be provided in certain circumstances which will be addressed on an individual basis by the administration.

**CalWORKs**

CalWORKs (California Work Opportunity and Responsibility to Kids) is designed to assist individuals moving from welfare to work. The CalWORKs program at City College of San Francisco provides education, training and support services. It also links students to employment opportunities related to the student's employment goal. Through this program students receive assessment, counseling services, assistance with textbook purchases, transportation, and childcare. For additional information, please visit the website at [www.ccsf.edu/info/CalWORKs](http://www.ccsf.edu/info/CalWORKs).
LEARNING RESOURCES AND STUDENT SERVICES
Learning Resources
City College of San Francisco Learning Resources facilities provide for collections and delivery of information and instructional materials in a wide variety of formats. The staff is available to answer inquiries concerning all aspects of library resources, as well as to give assistance and instruction in their use.

The College Library
The College Library encompasses six campus collections. The print holdings of the entire library system consist of a total of 175,653 volumes. The current number of current periodicals and microfilm is 690 titles. Online periodical and reference databases, with access to over 3,000 full text publications, can be accessed from off campus as well as from on-campus. Reference librarians provide workshops on the use of library resources at every campus library. All students must have a current CCSF student identification card to check out books and access online resources. San Francisco residents may obtain a community card to gain library privileges.

Library Locations:
The Claude and Louise Rosenberg Library/Learning Resource Center is located on the southeastern part of the Ocean Campus. All library users have access to the collections via the Library’s website, http://www.ccsf.edu/Library and will find:

- Online library catalog
- Full-text periodical databases
- Selected websites and search tools
- Guides and useful information about services, resources and research strategies.

Over 70 public computers provide access to all of the electronic resources. Wireless access is also provided. The open stacks give immediate access to almost the entire collection, affording valuable opportunities for independent browsing and research. A student computer lab is located on the fifth floor, R521.

The Alice Statler Library is located in the lower level of Statler Wing, next to Smith Hall on the Ocean Campus. The resources are tailored to support the instructional program of the Culinary Arts and Hospitality Studies Department. For more information visit the Statler website: http://www.ccsf.edu/Library/alice/statler.html.

The Downtown Campus Library is on the 2nd floor at 88 Fourth Street (corner of Mission Street) in downtown San Francisco. The contemporary design reflects the expanding role of technology in the learning environment. It houses a book collection with a focus on business and careers, ESL and computer technology. Students have access to state-of-the-art computers, Internet, audio-visual equipment and wireless technology. The student media lab features CD, DVD, VHS players as well as cassette tape machines. The student computer lab is equipped with 20 workstations connected to the Internet, and configured with word processing and educational software.

The John Adams Campus Library is located at 1860 Hayes Street, Room 204. Supporting the curricula at this campus, the collection has a strong emphasis in the allied Health Education, ESL, business and careers, computing, child development and basic education.

The Josephine Cole Library (Southeast Campus) is located on the fifth floor level at 1800 Oakdale Avenue. This collection has an up-to-date core reference section, as well as a strong emphasis in African American studies, Transitional Studies, ESL, basic education, computer applications and technology, trade skills and allied Health Education. It also offers access to computers, copy machines and media viewing and listening equipment available for student use.

The Language Center is located in the Library/Learning Resource Center (LLRC) on the second floor. Audio-active stations, video, language learning software, and computers with connection to the Internet offer students of American Sign Language, Chinese (both Cantonese and Mandarin), French, German, Italian, Japanese, Filipino, Russian, and Spanish a variety of activities to supplement their language study. The adjacent Language Center Electronic Classroom offers language instructors and their classes a traditional audio language lab console with 33 stations, multi-standard video player, laser disc player, Code Free DVD player, a video presentation stand, and Macintosh and Windows computers connected to the Internet. Language instructors should contact the Language Center to reserve the classroom. In addition, the Language Center provides assistance and training to both students and instructors in the use of materials and equipment. A City College of San Francisco ID card is required to use the Language Center. An additional ID is required for use of the computer section.

The Media Center, located in the LLRC on the 4th floor, has a large collection of videos and other non-print materials covering a wide range of subjects. Students use the Media Center to listen to or view materials developed or suggested by their instructors. Some courses require laboratory hours in the Center. Individually equipped carrels are provided so that students may progress at their own pace. Students are invited to use the Center for their personal enrichment.

The Mission Campus Library is located on the fourth floor of 1125 Valencia Street. Some one hundred computers can be used for general research, classroom work, and media training. The collection of books and periodicals has been selected for both general research and for the myriad of credit and non-credit courses.

The Learning Assistance Center
The Learning Assistance Center and its associated programs assist students in learning their course material, enabling them to become efficient, independent learners. These programs are located in the Rosenberg Library, Room 207.

The Tutorial Center provides one-to-one and small group tutoring in Basic skills areas, mathematics, chemistry, physics, accounting, economics, psychology, anatomy, physiology, statistics, music, nursing, and foreign language courses. Academic peer tutors are students who received high grades in their courses and recommendations from their instructors. These trained tutors assist students in their weekly assignments as well as with their study techniques. Students drop in daily to meet with tutors after a short registration process.

The Writing Success Project links with English and ESL composition sections to provide weekly group study sessions. Additional services, including LERN classes, workshops, student grants, help with scholarship and transfer applications, and counseling, are available to TRIO-eligible students. Services are intended for US citizens and residents who meet federal criteria based on family income, parent education, and/or disability.

The LAC at Mission Campus offers tutoring and computer lab support for students taking credit courses at that campus.
## Tutorial and Academic Support Programs

City College offers a variety of tutorial and academic support programs. Students should visit the program for further information.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Description</th>
<th>Program</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL</td>
<td>Computer tutorials for ESL</td>
<td>ESLCLAD</td>
<td>MU149</td>
</tr>
<tr>
<td>English</td>
<td>Computer programs and Web sites to strengthen writing, reading, and researching skills.</td>
<td>English Reading and Writing Center</td>
<td>A265 and R403 Southeast 402</td>
</tr>
<tr>
<td>ESL and English</td>
<td>Tutoring, small groups, and workshops for ESL and English students</td>
<td>Writing Success Project</td>
<td>R231 MIS401</td>
</tr>
<tr>
<td>ESL and English</td>
<td>Computer tutorials for English</td>
<td>LAC Computer Lab</td>
<td>R207 MIS401</td>
</tr>
<tr>
<td>Reading</td>
<td>Technology, workbooks, tutors, and reading groups to strengthen reading comprehension</td>
<td>Reading Lab</td>
<td>R205</td>
</tr>
<tr>
<td>Math</td>
<td>Tutoring and small groups for algebra and calculus</td>
<td>Math Area: Learning Assistance Center</td>
<td>R207 Mission Campus 401</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>Tutoring for each language</td>
<td>Learning Assistance Center</td>
<td>R207</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>Audio, video and computers for foreign languages</td>
<td>Language Center</td>
<td>R205</td>
</tr>
<tr>
<td>Sciences</td>
<td>Tutoring for anatomy, biology, chemistry, physics, and physiology</td>
<td>Learning Assistance Center</td>
<td>R207</td>
</tr>
<tr>
<td>Biology</td>
<td>Materials and tutoring for biology students</td>
<td>Biology Resource Center</td>
<td>S350</td>
</tr>
<tr>
<td>Nursing</td>
<td>Materials and tutoring for nursing students</td>
<td>Nursing Skills Lab and Media Center</td>
<td>C343 R403</td>
</tr>
<tr>
<td>Business</td>
<td>Tutoring for acct, econ, and statistics</td>
<td>Learning Assistance Center</td>
<td>R207</td>
</tr>
<tr>
<td>Speech</td>
<td>Assistance for students in speech courses</td>
<td>Communication Lab</td>
<td>C 208B</td>
</tr>
<tr>
<td>Misc. Subjects</td>
<td>Scheduled tutoring for qualified students</td>
<td>EOPS</td>
<td>EOPS 116</td>
</tr>
<tr>
<td>Misc. Subjects</td>
<td>Audio and visual materials</td>
<td>Media Center</td>
<td>R403</td>
</tr>
<tr>
<td>College Success</td>
<td>1–3 Unit “College Success Courses” and workshops</td>
<td>Learning Assistance Center</td>
<td>R207</td>
</tr>
<tr>
<td>Basic Skills and GED</td>
<td>Tutoring and diagnostics for adult basic ed. students</td>
<td>Adult Learning and Tutorial Center</td>
<td>31 Gough</td>
</tr>
</tbody>
</table>
College Success Classes are offered through the Learning Assistance Department (LERN 50 and LERN 51) and through the Interdisciplinary Studies Department (IDST 50). These classes are especially valuable to students attempting to raise their grade-point averages, re-enter college, or succeed in college. The focus is on life management, learning styles, personal and educational values, instructor-student relations, maintaining health, memory and concentration, lecture notetaking, textbook studying, subject-specific studying, test taking, using the library, critical analysis, problem solving, and creative thinking. Drop-in college success workshops are also available.

The LAC Computer Lab offers access to the Internet, e-mail, word processing and printing to all City College students. It also offers educational CD-ROM and software programs for students taking identified academic classes such as anatomy, business, CS, CNIT, mathematics, and science. Laboratory assistants help students in selecting and using the laboratory's hardware and software.

The Academic Computing and Resource Center in Batmale Hall room 301 continues to support students in Computer Science, Computer Networking Information Technology, Interdisciplinary Studies/Multimedia, and there are specialized software to support students from Broadcasting, Graphic Communications, Photography and Cinema. In addition, the lab is open to all CCSF students who need Internet access, Microsoft applications or wireless Internet connectivity. The lab houses 168 workstations including 122 Windows PCs, 40 Macs and 6 Linux stations. Software includes programs for Introduction to Macintoshes, cross platform Multimedia (Graphic Design, Audio/Video Editing, DVD Authoring, 3-D modeling and Post-Production), Linux with its dedicated subnet, Microsoft Office, web development and programming (C, C++, C#, Java, PHP, Perl, Oracle, SQL, etc.). 36 Windows PCs and 8 Macintoshes are available to CCSF students who require Internet connectivity and Microsoft Office applications. Wireless Internet connectivity is also available in the lab.

The ACRC is open M – Th 9:00 a.m. to 9:00 p.m., F 9:00 a.m. – 3:00 p.m. Call (415) 239-3492.

The Biology Resource Center is a study hall specifically designed to meet the learning needs of biology students. The Biology Resource Center is located in Science Hall, Room 350 and contains a variety of instructional materials for the biological sciences, which can be used in coordination with specific courses or as supplementary materials. The collection includes reference books, videotapes and self-instructional CD ROMS. The Biology Resource Center also contains anatomical and organismal models, charts, specimens, microscopes and slides. Instructors and qualified student tutors staff the laboratory. Hours of operation are posted at the laboratory and on the biology department website.

The Communication Lab (operated by the Speech Communication Program) located in Cloud Hall, room 208B, provides one-to-one tutoring for students enrolled in a Speech class. Staffed by Speech Instructors, the Lab offers students help in all stages of the speech-making process as well as assistance in understanding interpersonal communication concepts and group dynamics theories. In particular, the Lab provides support in anxiety reduction, topic selection, thesis writing, main point construction, outline development, beginning and ending speeches, delivery and visual aids. Computers are available for research, the creation of PowerPoint presentations and outline writing. Drop-in or call 239-3390 for Lab hours.

The Math Lab (operated by the Mathematics Department), housed in Bungalow 602 on the Ocean Campus, offers an array of services for students. Drop-in tutoring for basic mathematics (MATH E1 and MATH E3), pre-algebra (MATH 35), elementary algebra (MATH 40), and applied geometry (MATH 50) is provided in Bungalow 602.

Students can also use the computers in Bungalow 602 to view videos and use software in these subject areas. The basic mathematics classes (MATH E1 and MATH E3) that use the individualized and small group lecture formats meet in Bungalow 603.

The Nursing Skills Laboratory, located in Cloud 343, is a supervised open laboratory where Registered Nursing Students may complete and/or reinforce their course work. The Laboratory provides a collection of Audio-Visual References. A registered nurse serves as a resource person for nursing students to answer questions, direct independent studies, and give workshops on skill procedures.

The Transitional Studies Department Adult Learning and Tutorial Center at 31 Gough Street, Room 29. The mission of the Adult Learning and Tutorial Center (ALTC) is to provide an environment where adults who are learning basic skills can thrive and build strong academic and vocational foundations. Group and individualized classes with tutor support are offered in beginning literacy, math, and writing as well as in preparation for the GED exams.

Program and Services-The ALTC is an open entry program offering clusters of morning, afternoon, and evening classes to meet adults’ scheduling needs. The intake/orientation process includes preliminary assessment of reading levels and administration of official GED practice tests as appropriate. More in depth diagnostic tests are offered by a faculty reading specialist. A disabilities counselor assists with adaptations and GED accommodations.

31 Gough Street’s central location near Market Street transportation lines gives easy access to students throughout San Francisco and the Bay Area and especially serves the surrounding neighborhoods of the Tenderloin, South of Market, and Mission. Student outreach is to the numerous and community agencies in the area and in the larger city. While the majority of students have English as their first language, English speaking adults from many countries also study at the ALTC. Volunteer tutors come from Project Read, The Volunteer Center, San Francisco State University, Project 20, Pretrial Diversion, City College of San Francisco credit classes, and from among the ALTC’s alumni and retirees. The Center has a student mentor, student workers, and active student council, a computer lab, an annual book of student writings, and an annual GED graduation/all-level student awards ceremony.
# Student Services

## Counseling Services

See the surrounding text for more detailed information on Counseling Services or contact the individual department for information on workshops available to help you succeed.

<table>
<thead>
<tr>
<th>Department</th>
<th>Location</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Student Counseling Department (NSCD)</td>
<td>Conlan 205</td>
<td>239-3296</td>
</tr>
<tr>
<td>Continuing Student Counseling Department (CSCD)</td>
<td>Arts 201/Cloud 207/Multi-Use Bldg-Mezzanine</td>
<td>452-5235</td>
</tr>
<tr>
<td>Extended Opportunity Programs and Services (EOPS)</td>
<td>EOPS Bldg.</td>
<td>239-3561</td>
</tr>
<tr>
<td>International Student Counseling Department (ISCD)</td>
<td>Multi-Use Building-1st Floor</td>
<td>239-3942</td>
</tr>
<tr>
<td>Latino Services Network (LSN)</td>
<td>Cloud 364</td>
<td>452-5335</td>
</tr>
<tr>
<td>African American Scholastic Programs (AASP)</td>
<td>Rosenberg Library 209</td>
<td>452-5315</td>
</tr>
<tr>
<td>Asian Pacific American Students Success Program (APASS)</td>
<td>Batmale 208</td>
<td>452-5620</td>
</tr>
<tr>
<td>Career Development Counseling Department (CDCD)</td>
<td>Science 127</td>
<td>239-3117</td>
</tr>
<tr>
<td>Transfer Center</td>
<td>Science 132</td>
<td>239-3748</td>
</tr>
<tr>
<td>Psychological Services/Student Health Center</td>
<td>Student Health Center</td>
<td>239-3148</td>
</tr>
<tr>
<td>Veteran's Educational Benefits Program</td>
<td>Cloud 332</td>
<td>239-3486</td>
</tr>
<tr>
<td>Disabled Student Programs and Services (DSPS)</td>
<td>Rosenberg 323</td>
<td>452-5481</td>
</tr>
<tr>
<td>Lesbian/Gay/Bisexual/Transgender Counseling (LGBT)</td>
<td>Cloud 207</td>
<td>239-3320</td>
</tr>
<tr>
<td>Athletic Counseling Services</td>
<td>Well 139</td>
<td>239-3260</td>
</tr>
<tr>
<td>Homeless At-Risk Transitional Students (HARTS)</td>
<td>Cloud 205</td>
<td>452-5355</td>
</tr>
<tr>
<td>Financial Aid Counseling</td>
<td>Cloud 324</td>
<td>239-3576</td>
</tr>
<tr>
<td>Civic Center Campus Counseling</td>
<td>750 Eddy Street, Room 105</td>
<td>561-1878</td>
</tr>
<tr>
<td>Chinatown/North Beach Counseling</td>
<td>808 Kearny Street, Room 119</td>
<td>395-8611</td>
</tr>
<tr>
<td>Downtown Campus Counseling</td>
<td>800 Mission Street, 1st Floor</td>
<td>267-6503</td>
</tr>
</tbody>
</table>

Are you a new student to City College with less than 24 units? Do you need help with academic and career planning?

Have you completed a year of college or 24 or more units? Do you need an Educational Plan, degree or transfer information?

Do you need academic counseling, books, tutoring, and childcare? Come to EOPS to find out how to qualify for services.

Are you a new or continuing International student here on an F-1 Visa? Do you need specialized assistance and orientation?

Are you interested in bilingual and bicultural (Spanish-English) programs and support services?

Are you interested in programs for African Americans and the Diaspora, Black College tours and transfer assistance?

Are you interested in bilingual and bicultural counseling (Cantonese, Mandarin, Tagalog, and Vietnamese), programs, and support services?

Are you undecided about your educational or career interests and goals or looking for job placement information?

Need information to apply or transfer to a university? Interested in college tours or guaranteed admission agreements?

Been feeling kind of down lately? Having concerns of a personal nature? Stop by the Health Center for assistance.

Do you qualify for Veteran's benefits? Come to the Veteran's Office for assistance.

Do you need an accommodation due to a medical, physical, or psychological condition or learning disability?

Want information about student activities, scholarships, support services, counseling, courses and programs for LGBT students?

Are you a member of a City College intercollegiate athletic team? Do you need academic, career, or personal counseling?

Are you homeless and in need of special services such as transportation, food, books, and housing?

Are you concerned about financing your education? Are you interested in financial aid? Are you eligible for CalWorks? Do you want to apply for a scholarship?

Do you hope to study English as a Second Language? Are you interested in citizenship, how to use computers, or communications?

Are you interested in Asian American Studies, business, child development, Health Education, sign language, or ESL?

Are you interested in Computer Studies, ESL, Food Technology or Business? Are you an entrepreneur seeking the support of our Small Business Development Center?
<table>
<thead>
<tr>
<th>Campus Counseling</th>
<th>Services Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evans Campus Counseling</td>
<td>Looking for assistance in entering vocational programs? Interested in apprenticeship programs and cooperative work experience?</td>
</tr>
<tr>
<td>Gough Street Campus</td>
<td>Looking for the Adult Learning and Tutorial Center? Literacy Education? Transitional Studies or GED Preparation?</td>
</tr>
<tr>
<td>John Adams Counseling</td>
<td>Are you interested in the health professions, child development, computer training, Consumer Education, ESL or GED preparation?</td>
</tr>
<tr>
<td>Mission Campus Counseling</td>
<td>Are you interested in Digital Printing, Office Technology, GED (in Spanish), or a Working Adults Degree Program? Are you interested in ESL studies?</td>
</tr>
<tr>
<td>Southeast Campus Counseling</td>
<td>Are you interested in GED preparation or ESL courses, certificate programs or our Working Adults Degree Program?</td>
</tr>
<tr>
<td>Re-Entry Counseling Services</td>
<td>Are you returning to school after a prolonged absence?</td>
</tr>
</tbody>
</table>

Not sure who to contact? Need general college information? Want information on the many student workshops offered each semester? E-mail your quick questions to the Online Advisor at advisor@ccsf.edu.
Student Counseling Services
City College is fortunate to have several different types of professional counseling services. They include the following:

The Multicultural Retention Services Department (MRSD) was established in January 2010 and consists of four (4) academic retention programs, providing support services to underrepresented students. The four programs are the African American Scholastic Programs (AASP), the Asian Pacific American Student Success (APASS) program, the Latino Service Network (LSN) and TULAY (Tagalog for "BRIDGE "/Filipino American Student Success program, which are detailed below. For more information, you may contact the department chairperson at 415-452-5341.

African American Scholastic Programs
The goals of African American Achievement Program (AAAP) are to increase students’ ability to understand developments in the world, to think critically; to express thoughts clearly orally and in writing, and to make informed decisions.

The four components that drive the program are:

1. A series of English courses that include:
   - English 90/91-Basic Composition & Reading 1
   - English 92-Basic Composition & Reading 2
   - English 93-Intro to Academic Writing & Reading
   - English 96-Academic Writing and Reading
   - English 1A-University Reading and Composition
2. College Success courses
3. Library 10-Information Resources
4. Counseling Services

The counseling services component is an integral part of the instruction, which helps students acquire personal development skills. Both the instruction and counseling components are integrated. Intensive individual and group sessions provide students with educational, career and personal counseling to assist them in making appropriate choices in meeting their respective goals.

The AAAP program helps students to identify learning styles, effectively use informational resources and develop sound study habits.

The African American High School/College Program: In partnership with San Francisco Unified School District, the African American Scholastic Programs provide high school students with the opportunity to:

- Earn high school credits to complete high school graduation requirements.
- Earn college units towards an Associate in Arts Degree while still attending high school.
- Earn units which may begin to satisfy admissions requirements to a Baccalaureate Degree granting institution.

Each semester a variety of courses are offered in English, Math, History, Psychology, and Interdisciplinary Studies.

High school juniors and seniors are enrolled each semester with a recommendation from their high school principal or counselor. A program application is required and can be obtained from a participating SFUSD high school or from Rosenberg 209 at CCSF. Please see your high school counselor for more information.

The Summer Bridge Program is designed to assist high school students in the transition from high school to college. This program allows students to matriculate in the summer and enroll in college credit courses. The Summer Bridge Program is a six week summer program and students are eligible to enroll in a maximum of seven (7) units. Courses are pre-selected for program participants based on an English and Math placement exam prior to the beginning of the Summer semester.

Other support services that are provided are an orientation to college, a financial aid workshop, a campus tour, group and individual counseling sessions and the development of an educational plan.

After the successful completion of the Summer Bridge Program, participants are considered continuing students who will receive an early registration date for the following Fall semester.

There is no fee to graduating high school seniors; however, students must purchase required class text books and materials.

The Historically Black College/Universities (HBCU) Transfer Program is designed to provide CCSF students the opportunity to attend and graduate from CCSF, then transfer as a junior to an HBCU of their choice. CCSF/HBCU transfer students will participate in a collaborative learning environment while earning a General Education Associate Degree and completing transfer requirements. The program provides a variety of support services that include individual and group counseling and student mentoring.

The Peer Mentoring Program provides peer mentoring for high school and CCSF students enrolled in African American Scholastic Programs. Students enrolled in the CCSF/High School program are mentored by college students making a successful transition from high school to college.

The Peer Mentoring Program provides CCSF students and SFUSD elementary students, grades 2-6, the opportunity to interact and develop positive relationships, to encourage younger students to stay in school and understand the benefits of a college education.

Counseling Services: AASP provides academic, career and personal counseling to all students who utilize AASP programs and services. Students meet with academic counselors on a regular basis to create educational and career plans and monitor their progress. Counselors are available by appointment or drop in sessions. Counselors’ schedules are available in Rosenberg 209.

APASS: Asian Pacific American Student Success Program
APASS offers services to Asian and Pacific Islander (A/PI) and all students in pursuit of academic success through early intervention and effective support services.

Our counseling services include:

- Academic, career, and personal counseling
- Bilingual/bicultural counselors (Cantonese, Mandarin, Tagalog, and Vietnamese)
- Student educational plans
- Assistance with financial aid appeals
- Early alert referrals by instructors of APASS classes
- Referrals to campus and community services

APASS Center offers:

- Support services to students who are either on academic or progress probation
- APASS classes: English 91, 92, 93, 96, 1A, IDST 45, 50, Math E3, 40, and 60
- Study groups and tutoring
- Computer lab
- APASS and Mosaic (basic skills) Scholarships
- Bilingual/bicultural staff and student workers
- Outreach to A/PI high school and college students

The APASS Center is located in Batmale Hall, Room 208. For more information, call (415) 452-5620 or visit our website at www.ccsf.edu/apass

Latino Services Network (LSN)
The Latino Services Network (LSN) is dedicated to the development and implementation of effective support services and programs to
Learning Resources and Student Services

meet the academic, vocational, and career needs of the Latino student community.

Our services include:

Bilingual (Spanish and English) Counseling
- Academic, personal, and career
- Goal setting, educational plan development
- Graduation, certificate, and transfer information
- Bilingual (Spanish and English) college orientations
- AB 540 Counseling Services
- Workshops
- Outreach to SFUSD High Schools

The LSN Learning Center
- Computer laboratory use for homework and research
- A friendly place to meet other students and study
- Educational and cultural events and workshops
- Assistance with financial aid
- Advocacy and referrals to campus and community services
- Book Loan Program
- Mosaic Scholarships

For more information, please call us at (415) 452-5335, email us at latino@ccsf.edu, visit our website at www.ccsf.edu/lsn, or come visit us in Cloud Hall, Room 364.

TULAY (BRIDGE) Filipino-American Student Success Program
The TULAY Program is a learning community with a Filipino-American experience & student success theme. TULAY provides counseling & mentoring services, and offers linked courses in English, Math, College Success & Philippine Studies. The TULAY Ate/Kuya Peer Mentor Project pairs you with a student peer that can help you navigate through classes and life at CCSF. The Faculty/Staff/Community Mentors volunteer to provide academic support and career advising. Some services also available in Filipino (Tagalog). Our services include:
- Computer/Study Lab
- Academic & Personal Counseling
- Ate/Kuya (Big Brother/Big Sister) Peer Mentoring
- Faculty/Staff/Community Mentors
- Support in Math & English
- Community Service Opportunities
- Bilingual Services
- Private Study Room
- Philippine Studies, FAA, PEACE, UPASA, and Fill-Am Community Scholarships
- TULAY early registration classes: English 91, English 92, Math E3, Math 40, Math 60
- Learning community in Philippine Studies and PEP (Filipino/a Educational Partnerships) courses
- Recommended courses: IDST 50, PHST 30, IDST 45, IDST 42, PHST 20, Hits 37, Pil 10A, Pil 1, Psych 22, IDST 37, IDST 36

The TULAY Program is located in Cloud Hall, Room 363. For additional information call (415) 452-5922.

Continuing Student Counseling Department
The Continuing Student Counseling Department (CSCD) addresses the needs of continuing students who have completed one year of college or more than 24 units at City College of San Francisco or another college or university. Students can work with CSCD counselors to discuss their academic goals, and develop or revise educational plans. They can also discuss the requirements needed for a certificate, a degree, or transfer to a 4-year institution. CSCD counselors make referrals to helpful support services on and off campus and provide specialized workshops including probation, transfer planning, and Internet resources. The CSCD offers both express counseling for short questions, and counseling by appointment for educational plans and more complicated academic planning issues. Continuing students who fit the definition above may call 452-5235 to make a counseling appointment. Counselors are available Monday-Thursday from 8 a.m. until 6:00 p.m. Counselors are available on the Ocean Campus in A201, C207 and Multi-Use Building Mezzanine. CSCD includes the Veterans Educational Benefits Office. Please phone 239-3486 for more information or to schedule an appointment with the veteran's counselor.

International Student Counseling Department
Counseling services are available for International Students (F-1 Visa students). Counselors will assist new and continuing International Students with their academic, career, personal issues, and assist with understanding F-1 regulations which govern them. Additionally, counselors can assist students in resolving other problems of adjustment to college life and life in the United States. The International Student Counseling Department is located in Cloud Hall, Room 212. For more information call 239-3942.

New Student Counseling Department
City College of San Francisco’s New Student Counseling Department (NSCD) assists students entering the college with fewer than 24 units completed in the following ways: 1) Orienting the student to their educational choices, 2) Assisting students in the decision making process needed to begin their academic life on campus, 3) Discuss requirements for CCSF certificates, graduation, transfer to public and private institutions, 4) Support them in their academic life and career achievement goals, 5) Offer information regarding access to campus resources and student support services, 6) Through counseling, educational planning, workshops and classes, teach students about skills and strategies that support their academic success, 7) Support students problem resolution through appropriate counseling and referrals to personal counseling services as needed to enhance their success in college.

Our services include orientation to the college workshops, retention intervention classes for general and Basic Skills students, educational planning, student growth/development classes and short personal counseling sessions leading to appropriate referrals. Our goal is supporting student success.

Students are expected to go through the matriculation process as mandated by Title V of California Ed Code or waive their participation when they begin their studies here at CCSF. This process is comprised of the following steps:

1. Applying to the college
2. Taking a placement test or waiving testing appropriately
3. Attending an orientation workshop or doing online orientation
4. Seating a counselor to assist with course selection
5. Registering for classes

City College of San Francisco offers counseling services at the following campuses: Ocean Campus (main campus), Civic Center, Chinatown, Downtown Campus, Evans Campus, John Adams Campus, Mission Campus Southeast Campus.

The Ocean Campus office is open Monday - Friday. To reach the Campus please call (415)239-3296 for current hours. Call the main switchboard at (415)239-3000 for other campus counseling.
department numbers and contact each campus directly for their office hours. Please see the City College of San Francisco map for campus locations.

You may view our New Student Counseling Department website at the following address: www.ccsf.edu/nscd

**Additional Counseling Services**
The Athletic Counseling Services (239-3260) provides academic, career, educational planning, and personal counseling to male and female students who are members of City College's intercollegiate athletic teams.

Counseling for Gay, Lesbian, Bisexual and Transgender Students
Academic, career, and personal counseling is available with gay and lesbian identified counselors in the Continuing Student Counseling Department (C207), as well as in the Disabled Student Programs and Services Department (DSPS), the Career Development and Placement Center (CDPC), and Extended Opportunity Programs and Services (EOPS). For more information, please call Sarah Thompson in C207 at 239-3320, or the Queer Resource Center, B201, at 452-5919.

**Career Development Counseling Department**
CDCD provides career planning and job information services to students and alumni who want to best utilize their college/educational experience and prepare for their future careers/jobs. CDCD offers students and alumni both individual and group counseling, workshops, career success courses, career and job coaching, job readiness, job resource information, and job placement referrals. For a full description of the CDCD Career Center and its services online, visit the CDCD website: www.ccsf.edu/CareerCenters. Career advising online is also available by e-mailing questions to careerchat@ccsf.edu.

**Help for Non-Majors (Undecided) or Career Changers:** Students or alumni who have not yet chosen careers or majors, or who wish to change their careers or majors may obtain assistance with these decisions from the career counselors at CDCD. Through individual or group counseling, career assessment and exploration, labor market information, career workshops and career success courses (LRN 60, Career Success and Life Planning; 61, Orientation to Career Success; 62, Successful Job Search Techniques; 63, Career Counseling for Work Experience; 64, Financial Planning for Academic/Career Success; and 68, Career Coaching; and 1062, Job Skills, students will develop personal awareness and information essentials in making sound careers and major choices.

**Career/Job Resources Library/Lab:** CDCD Career Center maintains a variety of resources in S127 Ocean Campus available to both students and alumni. The lab features EUREKA and other, computerized software to assist students and alumni in localizing current, career and educational information. In addition, students and alumni have access to career resources on the Internet. Students and alumni may also avail themselves to a resume writer and all other career and job materials available to them. Similar services can also be found at the campuses.

**College Work Study/Lab Aide Referrals:** For college aide positions on campus (college work study and lab aide) students can view job announcements online through www.ccsf.edu/jobs. For further assistance visit the Career Centers located at the Ocean and Mission Campus or email careerchat@ccsf.edu.

**Job Placement Information:** Job placement information and referrals are available at the Career Centers located at the Ocean and Mission Campuses. Online jobs referrals can also be found through CCF Career Network www.career.ccsf.edu, and other links found on the CDCD website: http://www.ccsf.edu/NEW/en/student-services/student-counseling/cdcd.html.

**Disabled Students Programs and Services (DSPS)**

In compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), City College of San Francisco is committed to making programs, services and activities accessible for students with disabilities. DSPS provides reasonable accommodations and support services for students with verified disabilities. Services may include, but are not limited to, counseling, advocacy, priority registration, testing accommodations, classroom relocation, learning disability assessments, hearing screenings, sign language interpreters, real-time captioning, assistive listening devices, note takers, alternate formats (Braille, electronic text, Books on Tape) for reading material, lockers, scooters, adaptive technology, adaptive furniture and special classes. Emphasis is given to those services which allow the student with a disability to fully participate in academic and vocational programs for which they are otherwise qualified. Students wishing to receive services through DSPS should schedule an appointment to meet with a counselor. Services are confidential. Students with disabilities who need to bring an animal on campus, other than a service animal as defined in law, such as a guide dog, need to check with the DSPS office.

The DSPS High Tech Centers (HTCs) are computer labs designed for students with disabilities. The HTCs offer instruction in adaptive computer software and/or hardware and tutorial software for the development of academic, vocational and daily living skills. City College has two High Tech Centers: one located on the Ocean Campus in Batmale Hall, Room 231, and the other located at the John Adams Campus, Room 104.

The DSPS Strategies Lab located on the Ocean Campus in Batmale Hall, Room 231, provides special classes with small group instruction on learning strategies. The classes (DSPS M and DSPS O, Diagnostic Learning) are designed for students with disabilities. The instructor and trained instructional aides assist students in applying learning strategies as they work on homework assignments.

DSPS has offices on the Ocean, John Adams and Mission campuses. DSPS services are also available at other campuses by appointment. For further information, for office hours or to request an appointment, call or visit one of the offices. The Ocean Campus DSPS office is located in the Rosenberg Library, Room 323, (415) 452-5481 (voice) or (415) 452-5451 (TDD). The DSPS office at the John Adams Campus is in Room 106, (415) 561-1001 (voice) or (415) 561-1007 (TDD). To reach the Mission Camous DSPS office in Room 161, call (415) 920-6038. Hearing impaired students may contact DSPS by email at deafserv@ccsf.edu.

To view the Campus Access Guide and updated accessibility information, the DSPS Student Handbook, policies and procedures or offices hours, please visit the DSPS website at www.ccsf.edu/dspsls. Should you have questions or encounter difficulty regarding access, please contact the DSPS Accommodations Specialist at (415) 452-5485.

**Extended Opportunity Programs and Services (EOPS)**
The Extended Opportunity Programs and Services (EOPS) assists low-income, educationally under-prepared students by providing support services that are over, above, and in addition to those provided by the College as a whole. A state-funded program, EOPS provides counseling, one-on-one tutorial, priority registration, orientation to college, financial aid advising, book services, transfer workshops, and UC transfer application fee waivers. EOPS coordinates its resources with other CCSF departments and programs to enhance student success. In addition, eligible EOPS/TANF students may participate in the Cooperative Agencies Resources for Education (CARE), a program which provides counseling, advising, and transportation assistance to EOPS students who are single head of household with dependent(s) less than 14-years-old. Noncredit and international students are
Ineligible for EOPS services. The Extended Opportunity Programs and Services offices are located in the EOPS Center adjacent to Smith Hall. Go to our webpage at http://www.ccsf.edu/Services/EOPS for more information, or call (415) 239-3561.

**Student Health Services**

Student Health Services assists students in achieving their educational goals by providing services that address their physical and emotional health needs. Additionally, students are informed of community resources with the goal of becoming more effective health care consumers.

**Medical/Nursing Health Services**

*The following services are only for currently enrolled students taking credit classes.*

Services include campus emergency care, first aid, nursing assessment and treatment of common acute illnesses and infections, TB tests, vision tests, blood pressure screening, selected lower cost immunizations (MMR, Td, Tdap, Twinrix, HepA + HepB), reproductive health care, health promotion programs and referrals to specialists. Nurse practitioners are also available for consultation with faculty regarding their students. A part-time physician is available on limited bases through appointments and serves as a consultant for the nurse practitioners. Family Planning Clinic and Sexually Transmitted Infections (STI) services for both men and women are available to those who qualify for the State Family P.A.C.T. Program. This service includes PAP testing, STI screening, breast exam, and birth control methods.

Nurse practitioners are available at Student Health Services (HC100), Monday through Friday, only when classes are in session. Call 239-3110 for hours of operation. Most of the services are without additional charge. However, some services such as lab tests are charged a discounted fee or on a sliding scale basis.

If further off-campus medical evaluation or treatment is needed for injuries or ailments, students will be referred to their private doctor or community health agency. Students are financially responsible for all of their off-campus health care charges. For additional information, see our website at www.ccsf.edu/Services/Student_Health.

**Psychological Services**

*The following services are only for currently enrolled students taking credit classes.*

The goal of Psychological Services is to aid in student retention and to contribute to the psychological well-being of the campus community. As such, our services include short-term psychotherapy for individuals and couples, crisis intervention, assessment, information, referrals, and consultation with faculty regarding student concerns. Each semester staff conducts groups on topics such as procrastination, relationship problems, managing anxiety and panic attacks, stress reduction, and meditation. There are also workshops on re-entry and test anxiety. Appointments can be scheduled at the Student Health Center (HC100), or by calling (415) 239-3148.

**HIV/STI Prevention Studies**

The HIV/STI Prevention Studies is a program of the Health Education Department. A wide variety of HIV/STI (Sexually Transmitted Infections) services are available to CCSF students, faculty, employees and their significant others through the HIV/STI Prevention Studies program. The office is located in MUB, Room 301. Office hours are Monday through Friday 10 a.m. – 6 p.m. For more information, call (415) 452-5202 or fax (415) 452-5203.

**Center for Linking Learning & Action**

Located in MUB, Room 301, provides free condoms and other safe sex supplies, information and referrals related to HIV and STI prevention and treatment.

Office hours are Monday and Friday 10 a.m. - 2 p.m., Tuesday through Thursday 10 a.m. - 4 p.m. Telephone (415) 452-5070 or (415) 452-5202.

**Teacher Prep Center**

The Teacher Prep Center at City College of San Francisco is located in the new Multi-Use Bldg. on Phelan Ave. Room 249 on the Main Campus. A program of the Child Development and Family Studies Department, the Center provides resources, workshops, counseling, advising, career planning and job information, coursework, outreach and support to future teachers. Current programs include: the Metro CDEV Program, The Youth Worker to Teachers Program and information on the certificate, permit and credentials required in the field. Co-located with the Early Childhood Professional Development Project, which assists all future and current ECE staff in San Francisco, the Center provides assistance to students and community members interested in entering the field of ECE, elementary, secondary, or CTE teaching. Call 452-5605, PDP or 239-3890, Teacher Prep, for additional information or visit the web at: www.ccsf.edu/Departments/Child_Development.

**Transfer Center**

Students seeking to transfer to baccalaureate degree-granting institutions upon completion of lower division course requirements may obtain specialized resources at the Transfer Center located in the Science Hall, Room 132, Telephone 239-3748. Information concerning academic majors, general education requirements, and transfer admissions policies can be researched through the Center’s reference library, computer lab, and pre-admissions advising with college representatives. Special programs of the Transfer Center include the annual Transfer Day college fair and university campus tours. Please refer to the Transfer Center’s monthly calendar of workshops and events at www.ccsf.edu/Services/Transfer_Center.

**Transfer Admission Guarantee (TAG) Programs**

TAG programs are designed to ease the admissions process for CCSF students prior to submitting an official application to the university. Students can take advantage of guaranteed early admission opportunities with a variety of public and private institutions: CSU-East Bay, UC Davis, UC Irvine, UC Merced, UC Riverside, UC San Diego, UC Santa Barbara, UC Santa Cruz, Santa Clara University, and St. Mary’s College. In most cases, eligible students must be permanent residents of the U.S. who are seeking their first bachelor’s degree. Obtain additional TAG eligibility requirements and applications from the Transfer Center.

**Concurrent Enrollment Program**

This program with CCSF and the University of California, Berkeley, provides qualified students the opportunity to enroll in a maximum of two free UCB courses. Eligible students must have a 2.4 grade point average; be eligible for, enrolled in, or have completed ENGL 1A and maintain 12 semester units including the UCB course. Students who have attended four-year colleges or universities are not eligible. Call (415) 239-3334 for more information, and/or visit the Transfer Center, Rm. S-132.

**Additional Student Programs And Services**

**Alumni Relations Program**

You are an alumnus of CCSF if you graduated, transferred, received a degree or certificate, or just attended a few classes. The Alumni Relations Program engages in a variety of activities to meet your needs. Specifically, the Alumni Relations Program maintains an ongoing relationship with alumni: informing alumni of important services the College offers to them, such as free access to the Career Development and Placement Center; alerting alumni to College and department activities and other professional development opportunities; tracking alumni success stories; and offering opportunities for alumni to
contribute their time, talent, and resources to help other students succeed and realize their educational goals.

If you wish to receive periodic news and updates or share your success story via e-mail, send a note to alumni@ccsf.edu or visit www.ccsf.edu/alumni. For more information, call (415) 452-4711.

**Child Care Services**
The Child Development & Family Studies Department administers child development centers in San Francisco for children of CCSF students and other low income families. These centers function as labschools for child development students. The centers feature subsidized child care and development services and are full time at most locations. Children between the ages of 3-5 years are eligible for services and are admitted on a low income priority basis. Care for toddlers is available at the Orfalea Family Center at the John Adams Campus and at the Orfalea Family Center at the Main Campus. Parents can learn about how to enroll their children by calling (415) 561-1898. The Department also features Parent/Child Observation courses at 26 sites throughout the city for parents who wish to participate in adult education opportunities with their children. For further information on specific Child Observation courses operated by the Department, please call the office at the Orfalea Family Center, Room 203, (415) 452-5905 and at Ocean Campus, Multi-Use Bldg., Room 249 (415) 239-3172 or visit our website at: www.ccsf.edu/Departments/Child_Development.

**Lactation Center**
The Child Development & Family Studies Dept. operates "Effie’s Room" in the Orfalea Family Center (OFC 200) on the Main Campus. The room provides access to new moms who need to use a private lactation area. Baby-changing facilities, a refrigerator and privacy are available during the day. The area is open on a first-come, first serve basis during the school year and is generally open between 9-4 daily. Funded by the Orfalea Foundation, the lactation center provides support to new breast-feeding moms who are working or attending school. Employees and students are invited to use the facility. Questions on usage can be directed to 452-5905 or 239-3172.

**HARTS Program**
The HARTS (Homeless At-Risk Transitional Students) Program provides access, advocacy, resources, and support for homeless, formerly homeless, and at-risk students within the college, and for those potential students in similar situations who wish to return to the educational setting. For more information call (415) 452-3535.

**Math Bridge Program**
This is a one year long program beginning each fall semester whose purpose is to assist students in the successful completion of elementary and intermediate algebra. The program is targeted to African American, Latino, Filipino, and Native American students, however, all students are welcome to apply.

Interested students must attend an orientation and submit an application during the spring semester in order to enter the program in the following fall semester. The schedule for orientations is posted at math.ccsf.edu/bridge.

Math Bridge is not a remedial program. The goal of the program is to give extra assistance in the completion of mathematics prerequisites at City College in order to increase the number of transfers to baccalaureate colleges and universities. The extra assistance consists of a workshop, group tutoring, and other activities that supplement the mathematics course.

Contact mathbridge@ccsf.edu for more information regarding admission to the program.

**Orientation Classes**
To help students receive a more comprehensive understanding of the College, counselors offer Orientation Classes which thoroughly acquaint students to the demands of academic programs, the College’s various services, including the development of personal, career, educational goals including a transfer plan, and obtaining job-seeking skills. Orientation classes are also offered through the Career Development and Placement Center, the Extended Opportunity Programs and Services (EOPS), and through New Student Counseling.

**Peer Advisors**
The Peer Advisors are a group of students who have been trained extensively to offer support toward students’ success at CCSF. They provide numerous services such as assistance with orientation workshops, registration, financial aid forms, and general campus information. The Peer Advisors are located in the Information Center on the second floor of Conlan Hall. For more information call (415) 239-3296.

**Peer-Mentoring and Service-Learning**
The Office of Mentoring and Service-Learning offers two types of programs to increase student success and transfer, and enrich the college experience with hands-on application of classroom learning. In the Peer-Mentoring program, a student is matched with a peer mentor. The peer-mentor is a student who has experience in a particular course or program, and who provides information, advice, support and encouragement. The peer-mentor is selected by a Project Sponsor for the course or program. Mentors are currently available to students taking specific courses in science, social science, liberal arts, and vocational programs.

In the Service-Learning program, students enrolled in courses offering service-learning are placed in the community, where they apply both academic and practical skills for the benefit of society. Service-Learning integrates community service, and civic engagement with academic instruction and campus-community outreach so that each strengthens the other, and provides time for reflection and critical thinking while making significant contributions to individuals, organizations, and neighborhoods. For example, students taking biology courses may contribute to habitat restoration. In Project SHINE (Students Helping in the Naturalization of Elders), students in political science, psychology, sociology, foreign languages, and health prepare elders to take the citizenship exam.

Students involved in service-learning or volunteer opportunities may enroll (when available) in IDST 12 - Reflection on Service-Learning to share their experiences with other students (see course description). For more information about mentoring or service-learning opportunities, call (415) 239-3771.

**Project SURVIVE**
Project SURVIVE is a peer education program dedicated to promoting healthy relationships and ending sexual violence, especially rape and battery in intimate relationships. For more information call (415) 239-3899. Located in Cloud Hall, Room 402.

**Puente Program**
The Puente Project is an academic and community leadership program designed to increase the number of community college students transferring to four-year colleges and universities. Puente meets this goal through a writing, counseling, and mentoring program taught and conducted by a specially trained English instructor and a counselor.

The program is open to all interested students. For more information call Griselle Schmidt-Fonseca (415) 239-3035.

**Re-entry to Education Program (REP)**
REP acknowledges the growing number of adults actively changing their lives through the educational process. Whether one is seeking
to enhance his/her knowledge, learn new job skills, or prepare for a professional career, REP seeks to ease the transition for the re-entry student’s return to school. The staff understands that barriers can exist to beginning or re-entering college as well as to completing one’s educational goals. Identifying these barriers and helping students address their resolution is REP’s highest priority.

REP provides the following services to both prospective and currently enrolled students: professional counseling for personal, crisis, academic, and vocational concerns; information on transfer to four-year institutions; parenting/child care; study skills, job training and career opportunities; peer advising for assistance with completing forms, referral to campus and community resources, and the student perspective on campus life. For assistance please go to the Continuing Student Counseling Department on the mezzanine level of the Multi-Use building (MU 39).

Dr. Betty Shabazz Family Resource Center

The Dr. Betty Shabazz Family Resource Center empowers students with children through information, resources, and support and builds a stronger student parent community on campus. The Center is student-run and provides the following services: supervised children’s activities, use of FRC computers, job referrals, information about CalWORKS, peer mentoring, and support groups. For further information, come to the Student Union, Room 202, or call (415) 239-3109.

Queer Resource Center

The Queer Resource Center seeks to empower the lives of LGBTQQI (lesbian, gay, bisexual, transgender, queer, questioning, intersex) students at CCSF by uniting the diverse individuals in the community across gender, race, age and economic standing, religion, and ability differences. It provides access to a support system of peers and allies and strengthens the LGBTQQI community at CCSF. In addition, the QRC acts as a center of education for and about the queer community through peer-led teachings, workshops, and other such events. The Queer Resource Center is a safe place for queer and transgender students and all, welcoming the opportunity to outreach to its community. For further information, come to Bungalow 201, or call (415) 452-5723.

Students Supporting Students (S Cube or S³)

Students Supporting Students is the only student-initiated peer mentoring program on the Ocean Campus. S³ Peer mentors help students navigate their way through CCSF by providing vital information on topics such as financial aid, academic support, campus clubs/organizations, and other campus resources through a variety of ways including workshops and campus-wide events. The program’s unique student perspective provides a welcoming environment for students who may feel uncomfortable going to other resources on campus. S³ was established through the advocacy and organizing of students affiliated with underrepresented communities at CCSF. Students Supporting Students’ goal is to increase the transfer rates of these communities to 4-year universities and empower them during their time at CCSF. For further information, visit the Student Union, Room 203, or call (415) 239-3660

Veterans Services

For the location of the Veterans Educational Benefits Office, please go to www.ccsf.edu for building and room location or call for information: (415) 239-3486

Veterans, veterans’ dependents and eligible persons may apply online for benefits directly to the VA at www.gibill.va.gov for application and complete details.

Students must also apply for admission to City College of San Francisco online at www.ccsf.edu, for assistance contact the Office of Admissions and Records, Conlan Hall, Room E107.

Available Benefits:

1. GI Bill – Active Duty Educational Assistance Program (Chapter 30)
2. Vocational Rehabilitation, Veterans with Service Connected Disabilities (Chapter 31)
3. Post 9/11, (Chapter 33) Detailed chapter 33 information is online at www.gibill.va.gov. Students who believe they may be eligible for chapter 33 should review chapter 33 online and call the Education Call Center (1-888-442-4551) with any questions.
4. Survivors and Dependents of Veterans’ (who are either 100% disabled or died due to service-related conditions) Educational Assistance Program (Chapter 35)
5. Selected Reserve Educational Assistance Program (Chapter 1606)
6. Reserve Educational Assistance Program (REAP) Chapter 1607

Credit for Military Training. City College will grant six semester units of credit and waive the Physical Skills graduation requirement (Area G2) for students who present to the Office of Veterans Educational Benefits official documentation showing that they have completed one year or more of active duty in any of the Armed Forces of the United States. Veterans who have completed military-training courses may be awarded up to a maximum of ten additional units. These are based on the recommendations made by the American Council of Education. Students may use such credit in partial unit satisfaction of the requirements for the degree of Associate in Arts or Associate in Science. Since many universities and colleges do not accept credit that other schools have granted for military service, students who desire to transfer such credit should consult the policy of the school to which they intend to transfer.

Academic Progress Policy for Veteran Students. If the student has been on either academic probation or on progress probation or on both academic and progress probation for more than two consecutive semesters, he or she will have their veteran’s education benefits terminated. Appeals to the termination of veteran’s education benefits must be submitted and addressed to the Dean of Admissions and Records. All appeals will be reviewed on a case-by-case basis.

Women’s Resource Center

The Women’s Resource Center is a safe place that provides information to women about resources available to them both on and off campus. The Center houses a lending library of nearly 1,000 books by and about women. It sponsors campus-wide events and hosts various support groups. The Center is run by students who work closely with a faculty advisor from the Women’s Studies department. For more information, call (415) 239-3112. Located in Smith Hall, Room 103-104.
ASSOCIATE DEGREE GRADUATION REQUIREMENTS
ASSOCIATE DEGREE GRADUATION REQUIREMENTS

City College of San Francisco is dedicated to the principle that the highest quality education possible be provided to all students. Central to this philosophy is the belief that all students granted an associate degree should be required to study a variety of general breadth courses in addition to those courses which are required by a student’s major. These courses shall introduce the student to the languages, the methods of inquiry, and the achievements of the major academic disciplines. Consistent with this philosophy, it is the intent of the College to involve students in the various disciplines in such a way that students will develop an interest in learning that will continue and expand throughout their lives.

Goals of the General Education Program
Through its general education program, the College intends to graduate students who have developed:

a. skills in the principles and applications of language toward logical thought, clear and precise expression, and critical evaluation of communication in whatever symbol system the student uses.
b. English language and information competency skills so that they can communicate clearly, both orally and in writing; can evaluate what they hear and read; and can acquire, interpret and use information appropriately.
c. an appreciation and understanding of the scientific method, of the achievements of at least one of the natural sciences, and of the relationships between the natural sciences and other human activities.
d. an appreciation and understanding of the methods of inquiry used in the social and behavioral sciences and of the ways people act and have acted in response to their societies.
e. an appreciation and understanding of the ways in which people throughout the ages and in different cultures have responded to themselves and to the world around them through artistic and cultural creation, and have developed aesthetic sensitivity and skills as well as an ability to make informed value judgments.
f. an appreciation and understanding of American history and government so that they can be responsible and active citizens.
g. an appreciation and understanding of the physical skills and health knowledge essential for mental and physical well-being.
h. an appreciation and understanding of the history, culture, and perspective of diverse ethnic groups, of women and of gays, lesbians and bisexuals.

Catalog Rights
City College of San Francisco issues a new catalog yearly. The courses required for a specific degree or certificate may change from one catalog to the next and often change during a student’s tenure. For the purposes of meeting degree or certificate requirements based on catalog rights, students may elect to meet the requirements of either:

1. The catalog which was in effect at the time the student began his/her course work at City College of San Francisco, or
2. Any catalog that is or has been in effect during the time that the student has maintained continuous enrollment before graduation with the associate degree.

Students maintain catalog rights through continuous enrollment at City College of San Francisco prior to graduation with the associate degree. Continuous enrollment is defined as enrollment in at least one course per academic year (fall or spring semester only). Any of the following academic record symbols (A–F, P, NP, I, UG, IP, RD, W and MW) shall constitute continuous enrollment. Documented military or medical leave, not exceeding two years, will not be considered an interruption of enrollment. If an interruption in enrollment occurs, or if the student completes the associate degree, catalog rights are re-established based on the date of re-enrollment. Catalogs from years prior to re-enrollment are no longer available once an interruption in enrollment or completion of the associate degree occurs. Students planning to transfer to a four-year institution are advised to review that institution’s catalog for “rights” accorded community college transfers. City College of San Francisco reserves the right to not offer course work which has been offered in the past.

*Students who initially enroll in summer session may claim catalog rights for the preceding academic year. Likewise, students who re-enroll in summer session after an interruption in continuous enrollment may also claim catalog rights for the preceding academic year.

Graduation Requirements
A student may be graduated from City College of San Francisco by satisfying the requirements established by the Board of Governors of the California Community Colleges, the Governing Board of the San Francisco Community College District, and the faculty of the College. Two paths are available:

Option 1. CCSF Associate Degree
CCSF offers the Associate in Arts (AA) and Associate in Science (AS) degree. Students must complete the CCSF General Education requirements, the major requirement, 60 degree-applicable units, and other graduation requirements.

Option 2. CCSF Associate Degree for Transfer
CCSF offers Associate in Arts for Transfer (AA-T) and the Associate in Science for Transfer (AS-T) degrees. Students must complete the requirements listed below, including completion of either the CSU General Education or IGETC requirements, the major requirement, and 60 degree-applicable and CSU transferable units.

The following chart summarizes the two options. Details on the specific requirements of these two options follow the chart.
## Associate Degree Graduation Requirements Overview

### Option 1:
**CCSF Associate Degree**  
**Associate in Arts (AA)**  
**or Associate in Science (AS)**

### Option 2:
**CCSF Associate Degree for Transfer**  
**Associate in Arts for Transfer (AA-T)**  
**or Associate in Science for Transfer (AS-T)**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Option 1: Completion of City College of San Francisco General Education pattern, Areas A-H.</th>
<th>Option 2: Completion and certification of California State University (CSU) General Education pattern, Areas A-E or Completion and certification of the IGETC pattern, Areas 1-6 (CSU Transfer: Complete IGETC Areas 1-5; UC Transfer: Complete IGETC Areas 1a, 1b and 2-6). Note: Students transferring to CSU are strongly encouraged to complete the CSU American Institutions and U.S. History requirement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mathematics</td>
<td>Satisfactory math placement score, or completion of an approved math course, or satisfactory score on SAT, ACT, or Advanced Placement (AP) exam.</td>
<td>Completion of Area B4 of the CSU General Education pattern, or Area 2 of the IGETC pattern.</td>
</tr>
<tr>
<td>3. Major</td>
<td>Completion of a major program specified by the department; or completion of 18 semester units in one of the four Liberal Arts and Sciences Areas of Emphasis; or completion of 18 semester units in a particular field of study if a major curriculum has not been specified by the department.</td>
<td>Completion of an AA-T or AS-T program as specified by the department.</td>
</tr>
<tr>
<td>4. Units</td>
<td>A minimum of 60 semester units of degree applicable courses.</td>
<td>A minimum of 60 semester units that are both degree applicable and CSU transferable.</td>
</tr>
<tr>
<td>5. Grade Point Average</td>
<td>Cumulative grade point average of at least 2.0, including a grade of C or higher in each course taken towards the Major Requirement.</td>
<td></td>
</tr>
<tr>
<td>6. Residence</td>
<td>Completion at CCSF of the last 12 to 60 semester units required for graduation; or completion of a minimum of 45 semester units at CCSF.</td>
<td></td>
</tr>
<tr>
<td>Petitioning for the Associate Degree</td>
<td>Submission of a Petition for Graduation Form to the Office of Admission and Records by the deadline.</td>
<td></td>
</tr>
</tbody>
</table>
CCSF Associate Degree
1. General Education Requirements

General educational courses are required in the following areas:

A. communication and analytical thinking,
B. written composition and information competency,
C. natural sciences,
D. social and behavioral sciences,
E. humanities,
F. United States history and government,
G. physical skills and health knowledge, and
H. ethnic studies, women’s studies, and lesbian, gay, bisexual and transgender studies.

Most general education areas require a minimum of 3 semester units of coursework. However, a 4 quarter-unit course (transferred in from another college) may be used to satisfy a 3-semester-unit general education area. Students transferring in quarter-unit courses must complete, at minimum, the total numerical equivalent of 18 semester units (e.g., 27 quarter units) of general education coursework.

The requirement in each of the areas may be satisfied in any semester in which the student is in attendance, subject to the satisfaction of prerequisites.

Students satisfy the information competency requirement by successfully completing the Area B: Written Composition requirement, which includes teaching and assessment of specific information competency skill areas. Students who transfer in with a course approved as equivalent to English 1A have met this requirement.

A course listed in more than one of the areas may be offered in satisfactory of the requirement in only one of those areas. Exception: If an Area H course selected is also listed in Areas A through G, the course may be used to satisfy this requirement and one other area.

The student may satisfy the requirement for a general education course or courses by offering credit earned by examination, provided that he or she is a continuing student (not transferring in from another college) and the course he or she uses longer an ESL course that satisfies this requirement.

For students entering with 2009–10 or later catalog rights, there is no longer an ESL course that satisfies this requirement.

Area A: Communication and Analytical Thinking Requirement

Upon completion of this coursework, a student will be able to:

1. use the principles and application of language toward logical thought
2. demonstrate clear and precise expression
3. critically evaluate communications in whatever symbol system the student uses

To satisfy the graduation requirement in Communication and Analytical Thinking, the student must complete at least three semester units from the following courses.

American Sign Language 1A, 1B
Biotechnology 108A
Broadcast Electronic Media Arts 101
Business English 74, 76
Business Mathematics 66, 68
Chemistry 17
Child Development 108A, 108B
Chinese 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 12A, 12B, 12C, 14A, 14B, 14C, 16, 17, 22, 31A, 31B
Computer Networking and Information Technology 131, 132
Design 110

Area B: Written Composition Requirement

Upon completion of this coursework, a student will be able to:

1. develop a topic using non-narrative writing techniques, using abundant detail and examples, including comparison, summary, argument, analysis and definition.
2. show control of all major conventions of standard English grammar usage and punctuation.
3. obtain appropriate information, evaluate the credibility and accuracy of information, and document external sources using a standardized citation format.

The student may satisfy the graduation requirement in Written Composition and information competency in either of these two ways:

1. Completing English 1A with a grade of C or higher
2. Scoring:
   - 3, 4 or 5 on the Advanced Placement Examination in Language & Composition; or
   - 3, 4 or 5 on the Advanced Placement Examination in Literature and Language.

While English 1A satisfies this requirement, students intending to transfer to a four-year institution may need to complete an additional critical thinking course.

For students entering with 2009–10 or later catalog rights, there is no longer an ESL course that satisfies this requirement.

Area C: Natural Sciences Requirement

Upon completion of this coursework, a student will be able to:

1. communicate scientific ideas and theories effectively
2. demonstrate an understanding of the scientific method
3. apply models to explain the behavior of commonly occurring phenomena
4. evaluate how measurement errors impact the application of scientific models

To satisfy the graduation requirement in the Natural Sciences, the student must complete at least three semester units from the following courses.

- Anatomy 14, 25
- Anthropology 1
- Astronomy 1, 4, 14, 16*, 17, 18, 19
- Biology 9, 11, 15, 20, 30, 31, 32, 40, 100B
- Biotechnology 115, 120
- Botany 10
- Chemistry 32, 40, 101A, 103A, 110
- Ecology 20
- Energy 3
- Genetics 10, 15
- Geography 4, 7
- Geology 10, 11, 18, 20A, 20B, 20C, 25, 30
- Interdisciplinary Studies 9
- Microbiology 10, 12, 51*
- Nutrition 12, 51*, 52
- Oceanography 1
- Ornamental Horticulture 76, 77
- Paleontology 1
- Paleobotany 1
- Physical Science 11
- Physics 2A, 4A, 10, 40, 41
- Physiology 1, 12, 67
- Zoology 10

*Only partially satisfies the number of units required for this area

**Area D: Social and Behavioral Sciences Requirement**

Upon completion of this coursework, a student will be able to:

1. exhibit an understanding of the method of inquiry used by the social and behavioral sciences.
2. critically evaluate the ways people act and have acted in response to their societies
3. demonstrate an understanding that actions, thinking, and feeling are culturally conditioned
4. compare how societies and social subgroups operate
5. contribute to the disciplines of fine and performing arts and analytical or creative writing

To satisfy the graduation requirement in the Social and Behavioral Sciences, the student must complete at least three semester units from the following courses.

- Academic Achievement Personal Success 100
- Administration of Justice 57, 59, 67
- African American Studies 30, 31, 40, 55, 60
- American Civilization 11A, 11B
- American Studies 5
- Anthropology 2, 3, 3AC, 4, 5, 8, 11, 12, 15, 20, 25
- Asian American Studies 3, 8, 22, 27, 35, 40, 42, 61*, 62*, 63
- Asian Studies 1
- Broadcast Electronic Media Arts 104
- Child Development 53, 67, 68
- Disabled Students Programs and Services 1
- Economics 1, 6, 10, 25, 30
- Fashion 28*
- Geography 4, 7
- Health Education 5, 10, 30, 52, 54, 221, 231
- Interdisciplinary Studies 7, 28G, 29, 30, 37, 45, 80A*, 80C*, 80D*, 80E*, 80F*, 80G*, 81B*
- Labor and Community Studies 15, 70A, 70B, 71A*, 71B*, 74, 78A*, 78B*, 78C*, 78E, 88, 91D*, 96A, 96B, 96C, 96D, 96E, 100
- Latin American and Latino/a Studies 1, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 22, 23, 25, 26, 40
- Lesbian/Gay/Bisexual/Transgender Studies 5, 9, 10, 21, 24, 30, 50, 60
- Philippine Studies 20, 30
- Physical Education 13
- Political Science 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 18, 20, 22, 25, 35, 43, 45, 46, 47, 48, 53A
- Psychology 1, 4, 10, 11, 14*, 15*, 17*, 21, 22, 23, 25, 26, 40
- Sociology 1, 2, 3, 25, 30, 35
- Speech 5
- Women's Studies 25

*Only partially satisfies the number of units required for this area
The general education graduation requirement for Area G, Health Knowledge and Physical Skills, may be waived for those students in career technical or occupational education programs who have completed thirty semester units at the College. A petition must be filed with the program adviser, or the person who maintains the students' official file. Approval is based upon the hardship imposed by the number of units required by the career technical program. The Vice Chancellor of Academic Affairs or his/her designee, shall review the approved petition. The petition and review processes are to be completed no later than the end of the semester prior to the semester in which the student graduates. The waiver applies only to students who are petitioning for the Associate Degree with a career technical major.

Area G1 may be waived upon successful completion of a competency examination. Students should contact their counselor or program adviser for additional information.

The Area G2 Physical Skills graduation requirement may be waived for those students who have completed one year or more of active duty in any of the Armed Forces of the United States and who present official documentation of this service to the CCSF Office of Veterans Educational Benefits.

Area H: Ethnic Studies (H1), Women's Studies (H2), and Lesbian, Gay, Bisexual, and Transgender Studies (H3)

Upon completion of this coursework, a student will be able to:

1. identify and compare the historical and cultural/aesthetic experiences of women, different ethnic/racial minority groups, lesbians, gays, bisexual, and transgendered persons
2. identify and compare personal value systems and/or styles of creative expression to those of other ethnic/racial groups, women, lesbians, gays, bisexual, and transgendered persons
3. recognize the diversity of attitudes and values which are projected in verbal and nonverbal behavior, and the dynamics of interpersonal interactions from others' perspectives
4. identify ethnic/racial, gender, and lesbian, gay, bisexual, and transgender stereotypes
5. demonstrate socio-cultural participation skills, decision-making abilities, and political awareness in order to be effective citizens in a diverse world

To satisfy the graduation requirement in Ethnic Studies (H1), Women's Studies (H2), and Lesbian, Gay, Bisexual and Transgender Studies (H3), the student must complete at least three semester units from Area H1, H2, or H3. If the course(s) selected is (are) also listed in Areas A through G, the course(s) may be used to satisfy this requirement and one other area.

Area H1 (Ethnic Studies)
Administration of Justice 67
African American Studies 30, 31, 35, 40, 50, 51, 55, 60, 70
Anthropology 3AC, 11, 12, 15
Art 104, 105, 106, 107, 146A
Asian American Studies 6, 8, 10, 20, 22, 27, 30, 35, 40, 42, 62*, 63
Asian Studies 1, 11, 12
Broadcast Electronic Media Arts 104
Child Development 93
Chinese 29A, 29B, 39, 49
Dance 32, 132A*
Economics 30
English 32A/34A, 32B/34B, 36, 37, 57, 58A, 60
Health Education 50
Humanities 35, 48
Interdisciplinary Studies 14, 23, 27A, 27B, 28G, 29, 30, 36, 37, 40, 42, 44, 45, 46, 70, 80A*, 81B*
Japanese 39, 49
Labor and Community Studies 15, 100
Latin American and Latino/a Studies 1, 9, 10, 11, 13, 14, 15
Lesbian/Gay/Bisexual/Transgender Studies 9
Music 21, 23, 24, 25, 26
Philippine Studies 20, 30
Pilipino 39A, 39B
Political Science 7, 8, 12, 13, 18, 35, 47, 48
Psychology 22, 23
Speech 5
Theatre Arts 163

*Only partially satisfies the number of units required for this area

Area H2 (Women’s Studies)
African American Studies 60
Anthropology 25
Art 108
Asian American Studies 35
Broadcast Electronic Media Arts 105
Economics 25
English 37, 57, 58A
Health Education 25, 26
History 12A, 12B
Humanities 25
Interdisciplinary Studies 23, 80C*, 80G*
Labor and Community Studies 78A*, 78B*
Latin American and Latino/a Studies 10
Lesbian/Gay/Bisexual/Transgender Studies 21, 30
Psychology 25
Sociology 25
Supervision and Business Management 236
Women’s Studies 10, 20, 25, 54, 55

*Only partially satisfies the number of units required for this area

Area H3 (Lesbian/Gay/Bisexual/Transgender Studies)
Anthropology 20
Broadcast Electronic Media Arts 106
Child Development 76
English 55, 56A, 56B, 56C
Health Education 25, 27, 67, 68, 95*, 96*
History 45, 47D*
Interdisciplinary Studies 80D*
Labor and Community Studies 91D*
Latin American and Latino/a Studies 9
Lesbian/Gay/Bisexual/Transgender Studies 5, 9, 10, 11, 12, 15, 18, 20, 21, 24, 25, 30, 40, 50, 55, 60, 77
Music 27C

*Only partially satisfies the number of units required for this area

CCSF Associate Degree
2. Mathematics Requirement
The student may satisfy the graduation requirement in mathematics in any one of the following four ways:

1. Achieving a score on the algebra placement examination that places the student into a course at a level higher than MATH 60. (See the Test Retake Policy in the Admissions section of the catalog for information about retaking the placement test.)

2. Completing with a grade of C or higher MATH 60 (formerly 860), or MATH 50 (formerly 850), or MATH 55 (formerly 855), or ET 108B/CDEV 108B, or ET 50, or PSYC 5, or ECON 5, or PHIL 12A. Mathematics department courses at a level higher than MATH 60 also satisfy this requirement.

3. Completing at an accredited college with a grade of C or higher any mathematics course equivalent to MATH 60, or equivalent to a higher level CCSF mathematics course.

4. Scoring:
   • 550 or higher on the SAT Subject Test in Mathematics (Level 1 or Level 2), or
   • 600 or higher on the Mathematics Section of the SAT Reasoning Test, or
   • 600 or higher on the Quantitative Section of the Graduate Record Examination (GRE), or
   • 28 or higher on the American College Test (ACT), or
   • 3, 4, or 5 on the Advanced Placement Examination in Calculus AB or Calculus BC or Computer Science AB or Statistics, or
   • Mathematics Status: “Ready for CSU college-level mathematics course,” on the Early Assessment Program (EAP) of the California Standards Test.

CCSF Associate Degree
3. Major Requirement
A student must complete a major in one of the following three ways. Courses taken to complete this requirement must be completed with a final grade of C or higher, or P if taken Pass/No Pass:

a. completion of 18 or more semester units in an Area of Emphasis of the Liberal Arts and Sciences degree program described in the Programs and Courses section of this catalog. The four areas of emphasis are:
   Arts and Humanities
   Communication
   Science and Mathematics
   Social and Behavioral Sciences
   or

b. completion of the 18 or more semester units in a curriculum specified by the department, which includes the following majors:
   Accounting
   Administration of Justice
   Administrative Support
   Aircraft Powerplant Maintenance Technology
   Airframe-Maintenance Technology
   Architecture
   Automotive Mechanics
   Avionic-Maintenance Technology
   Biological Sciences
   Biotechnology
   California Real Estate
   Cardiovascular Technology and Echocardiography (pending state approval)
   Child Development
   Chinese
   Cinema Production
   Commercial Cut Flower Greenhouse Production
   Computer and Information Science
   Computer Networking and Information Technology
   Computer Science
   Construction Management
   Culinary Arts Management
   Dance-Performance Art
Dental Assisting  
Diagnostic Medical Imaging  
Earth Sciences  
Electronic Engineering Technology  
Engineering-General  
English  
Environmental Studies and Science  
Fashion Design  
Fashion Merchandising  
Finance  
Fire Science Technology  
Floristry  
Food Service Management  
French  
General Business  
Geology  
Graphic Design  
Health Education  
Health Information Technology  
Hotel Management  
Interior Design  
Italian  
Japanese  
Journalism  
Labor and Community Studies  
Landscape Gardening and Landscape Contracting  
Latin American and Latino/a Studies  
Lesbian/Gay/Bisexual/Transgender Studies  
Library Information Technology  
Marketing  
Mechanical Engineering Technology  
Medical Administrative Assisting  
Medical Office Assisting  
Motorcycle Technician  
Nursery and Garden Center Operation  
Nursing  
Oceanography  
Paralegal/Legal Studies  
Paramedic  
Photography  
Physics (pending state approval)  
Print Production  
Radiation Therapy Technology  
Spanish  
Travel and Tourism  
Women's Studies; or

c. completion of 18 or more semester units in a particular field of study if a major curriculum has not been specified by the department.

**CCSF Associate Degree  
4. Unit Requirement**

To satisfy the unit requirement for graduation, the student must complete a minimum of 60 semester units of college-level (degree applicable) work that include the courses and units

a. required for the student's major, and
b. specified in the general education requirements described above.

**CCSF Associate Degree  
5. Grade-Point Requirement**

To satisfy the grade-point requirement for graduation, a student must maintain a cumulative grade point average of at least 2.0 in all associate degree applicable courses at City College of San Francisco. Unless otherwise noted (as in Written Composition Requirement and Major Requirement), it is not necessary to receive a grade of "C" or better in each course, but the overall grade point average in degree applicable courses must be at least 2.0. The student must also have at least a 2.0 combined grade point average which includes the cumulative grade point average for all associate degree applicable courses at City College of San Francisco combined with the grade point average of all transferable units completed at other accredited postsecondary institutions.

**CCSF Associate Degree  
6. Residence Requirement**

The student may satisfy the residence requirement for graduation

a. by completing at City College of San Francisco the last 12 of the 60 degree applicable semester units required for graduation, or
b. by completing a minimum of 45 degree applicable semester units at City College of San Francisco.

**CCSF Associate Degree for Transfer  
1. General Education Requirements**

Students satisfy the general education requirements for the Associate Degree for Transfer by completing and obtaining certification of one of the following two options:

- California State University (CSU) General Education pattern, Areas A-E
- IGETC pattern, Areas 1-6
  - CSU Transfer: Complete Areas 1-5
  - UC Transfer: Complete Areas 1a, 1b and 2-6

These requirements are outlined in the Transfer Information section of the catalog. Students transferring to CSU are strongly encouraged to complete the CSU American Institutions and U.S. History requirement.

**CCSF Associate Degree for Transfer  
2. Mathematics Requirement**

Students satisfy the Mathematics requirement for the Associate Degree for Transfer by completing one of two options, concurrent with their completion of the General Education requirements noted above:

- Completion of Area B4 of the CSU General Education pattern
- Completion of Area 2 of the IGETC pattern

**CCSF Associate Degree for Transfer  
3. Major Requirement**

Students satisfy the major requirement for the Associate Degree for Transfer by completing 18 or more units in a curriculum specified by the department. Courses taken to complete this requirement must be completed with a final grade of C or higher. Specific requirements are listed in the Programs and Courses section of the catalog. Currently, City College of San Francisco offers the Associate Degree for Transfer in:

- Communications Studies
- Psychology

Students should also look at the online catalog for the most recent updates.
CCSF Associate Degree for Transfer

4. Unit Requirement
To satisfy the unit requirement for graduation, the student must complete a minimum of 60 semester units that are both CCSF degree applicable and CSU transferable. This includes the courses and units
a. required for the student’s major, and
b. specified in the general education requirements described above.

CCSF Associate Degree for Transfer

5. Grade-Point Requirement
To satisfy the grade-point requirement for graduation, a student must maintain a cumulative grade point average of at least 2.0 in all CSU transferable courses at City College of San Francisco and any other institution. While it is not necessary to receive a grade of "C" or better in each course, the overall grade point average in degree applicable courses must be at least 2.0. However, each course taken to satisfy the major requirement must be completed with a final grade of C or higher.

CCSF Associate Degree for Transfer

6. Residence Requirement
The student may satisfy the residence requirement for graduation
a. by completing at City College of San Francisco the last 12 of the 60 units required for graduation, or
b. by completing a minimum of 45 of the 60 units required for graduation at City College of San Francisco.

Petitioning for the Associate Degree
Students seeking the Associate in Arts or the Associate in Science Degree must complete and submit a Petition for Graduation Form to the Admissions and Records Office on or before the dates specified in the Calendar of Instruction.

Students should not petition for the Associate Degree until all the requirements are met or about to be satisfactorily completed in the current school term. Students are requested to review the completion of all requirements with their counselor or advisor prior to submitting the Petition for Graduation Form.

Multiple Majors/Multiple Degrees
Students may graduate with multiple majors or earn multiple degrees at City College. Multiple majors are considered to be the completion of more than one program of study (major) prior to graduation with the associate degree. Multiple degrees are the attainment of an additional degree after the student has already completed an associate degree or higher.

Multiple Majors
Students may earn an associate degree in more than one major providing:
1. Minimum requirements have been met for each major;
2. The majors are available in the same catalog year; and
3. General education and all other graduation requirements in that same catalog year have been met.

Courses used to fulfill the requirements of one major may be used to meet the requirements of an additional major. Courses used to meet major requirements may be applied to general education requirements as well. The general education courses used to satisfy graduation requirements for one major may also be applied to additional majors.

For multiple majors, a single diploma with all majors listed will generally be issued. If one major leads to an Associate in Arts and another to the Associate in Science, two diplomas will be issued.

Multiple Degrees
Students who already possess an associate degree from City College of San Francisco may be awarded an additional degree upon completion of the following:

1. All requirements for the major in a different field of study;
2. General education requirements for the catalog in effect when the student re-enrolls (subsequent to graduation with the associate degree) and for which the student maintains catalog rights; and
3. All other City College graduation requirements. Previous coursework may be used to meet the new major and general education requirements.

Catalog rights end upon completion of the Associate of Arts or Associate of Science degree. If the student did not meet the requirements of the additional degree prior to graduation, catalog rights for the additional degree will begin after the previous degree was awarded.

Students who possess an associate degree or higher from another regionally accredited college or university may earn an associate degree from City College upon completion of the following:

1. All requirements for the major in a different field of study
2. General education requirements for the catalog in effect when the student enrolls and for which the student maintains catalog rights; and
3. All other City College graduation requirements. Previous coursework may be used to meet the new major and general education requirement.

Certificate Programs

Types of Certificate Programs
City College of San Francisco offers both credit and noncredit certificate programs of study.

Certificate Curricula — Credit
City College offers two types of credit certificates, Certificate of Achievement and Certificate of Accomplishment, which prepare students for entry-level employment or further study, add special knowledge and skills to existing occupational competence, or mark an accomplishment in a particular area.

A Certificate of Achievement is a sequence of courses usually consisting of 18 or more units of degree-applicable coursework that has been approved by the State Chancellor's Office. Students who successfully petition for a Certificate of Achievement will have the name of the certificate appear on their transcript.

A Certificate of Accomplishment is a sequence of courses consisting of fewer than 18 units of degree-applicable coursework. Students who successfully petition for a Certificate of Accomplishment will not have the name of the certificate appear on their transcript.

Credit that students earn in a certificate curriculum may also be used toward satisfaction of the requirements for graduation from the College with an Associate Degree.

Certificate Curricula — Noncredit
City College offers two types of noncredit certificates, Certificate of Completion and Certificate of Competency, which prepare students for entry-level employment or further study. A Certificate of Completion is a sequence of courses designed to prepare students to progress in a career path or to undertake degree-applicable or non-degree applicable
credit courses. A Certificate of Competency is a sequence of courses preparing students to demonstrate achievement in a set of competencies that prepares the student to progress in a career path or to undertake degree-applicable or non-degree applicable credit courses. Some noncredit certificate programs meet required guidelines for student financial assistance.

**Petitioning for Certificate Programs**

Students who have fulfilled the certificate program course requirements as stated in the CCSF college catalog may petition to receive their certificate. Petitions are available at the Admissions and Records Office, Conlan Hall, Room 107. Petitions should be submitted by the deadline posted in the Calendar of Instruction. Information: (415) 239-3046

The guidelines for petitioning for certificate programs are as follows:

- Discuss the curriculum requirements with your program advisor or department chair to assure that all program requirements are met.
- Submit your petition before the deadline indicated in the current College Catalog or Schedule of Classes.
- If you are applying for multiple certificates, please complete separate petitions for each.
- If any of the requirements for the Certificate you are applying for (as published in the CCSF Catalog) are being substituted by courses taken at another college or university or substituted with CCSF coursework, or are being waived by the department, be sure the department chair or faculty advisor completes and signs the appropriate areas of the petition form.

If your petition is denied because you have not met all the requirements, consult the College Catalog for the catalog rights year you are claiming. If you need further clarification, contact the department chair or a faculty advisor. DO NOT call the Office of Awards and Certificate Evaluations or the Admissions and Records Office to request a waiver of requirements. The requirements for Certificates have been established by the faculty and the administration and approved by the Governing Board. The Admissions and Records Office does not have the authority to change or waive any of the requirements.
Transfer Information

General Information
This section of the College catalog contains general information for students planning to transfer to any of the University of California (UC) campuses or to any of the campuses of the California State University (CSU).

Listed in this section of the catalog (in the order given below) are three categories of information: (1) Courses which satisfy the general education requirements for all campuses of the California State University; (2) Courses from City College of San Francisco acceptable at all campuses of the University of California for elective credit; (3) Courses from City College that satisfy the Intersegmental General Education Transfer Curriculum (IGETC).

Transfer Information
Courses numbered from 1 through 799 are university courses except for some listed as “Credit, non-degree applicable” and a few others. With these exceptions, courses numbered 1 through 799 are considered to be baccalaureate in nature and carry transfer credit. However, according to their transfer policies, some universities and four-year colleges may not grant transfer credit for every City College baccalaureate course.

Courses named with one of the letters from A through Z are foundational courses: for example, English K. Credit earned in these courses is not accepted for graduation from City College and is generally not transferable to a university or a four-year college.

Credit earned in courses numbered 800 through 899 is generally not transferable to a bachelor degree-granting institution. Such credit, however, is accepted for the City College Associate Degree.

Courses numbered 0001 through 9999 (the zeroes are significant) are noncredit courses. No college credit is given for these.

The California State University grants transfer credit for all courses numbered 1 through 799, except for some courses in Biotechnology, Child Development, English, English as a Second Language, Engineering Technology, Health Education and Mathematics. Those courses which are transferable to the California State University for elective credit are labeled with “CSU” following the description of the course content in its announcement.

A complete list of courses for which the University of California accepts credit is given in the Transfer section of this catalog. In addition, each course that is acceptable for elective credit at all campuses of the University of California has “UC” following the description of the course content in its announcement.

Courses designated as “UC upon review” are independent studies or variable topics courses which may earn UC elective credit, but which must be evaluated by the UC campus at the time the student is admitted for transfer before credit can be granted.

Students are advised to see their counselors or advisors for further information beyond that which is given on the following pages regarding transferring to a four-year college or university.

Articulation Agreements
Articulation agreements which list detailed information concerning specific majors and describe course transferability from City College of San Francisco CSU and UC campuses are available on ASSIST, www.assist.org. Articulation agreements with private or out-of-state colleges may be found on the City College Articulation website: www.ccsf.edu/artic.

California State University (All Campuses)

Admission Application Dates
To ensure consideration for admission to the campus of first choice, students are reminded to file a CSU application during the appropriate filing period shown below:

Term: Applications First Accepted
Summer Quarter: February 1 (preceding the summer term)
Fall Semester/Quarter: October 1 (preceding the term)
Winter Quarter: June 1 (preceding the term)
Spring Semester/Quarter: August 1 (preceding the term)

Application for impacted programs and campuses must be filed during the initial application filing period. Otherwise, each campus accepts applications until capacities are reached. If you are applying after the initial filing period, consult the campus admissions office for current information.

Apply online, www.csumentor.edu.

Admission as a Transfer Student
A student may satisfy CSU admission requirements as an upper division transfer student by:

- Completing a minimum of 60 transferable semester units (CCSF courses numbered 1 through 799 except for some non-degree applicable Biotechnology, Child Development, English, English as a Second Language, Engineering Technology, and Health Education and Mathematics courses).
- Maintaining a grade point average of 2.00 or higher in all transferable units attempted. Nonresidents must have a 2.4 grade point average.
- Satisfying a minimum of 30 units of General Education with grades of C or better including: A1 Oral Communication, A2 Written Communication, A3 Critical Thinking, B4 Quantitative Reasoning.

Supplementary Admissions Requirements. Some majors and campuses receive more applications during the initial filing period than can be accommodated and have higher admission standards. For detailed information regarding Impacted Undergraduate Majors and Campuses in the California State University, go to http://www.calstate.edu/AR/impactioninfo.shtml.

Transfer of Credit to the California State University (All Campuses)
The campuses of the California State University accept credit from City College of San Francisco as follows:

1. They accept as elective credit toward graduation the units earned in all City College courses numbered 1 through 799, except for BTEC 108A, CDEV 108A, ESL 20, 23, 26, 75, 85, 110, 112, 120, 120R, 120W, 122, 130, 132, 142; ENGL 9, 90, 91, 92, 93, 95X, 96, ET 108A, HLTH 8, and MATH 35, 40, 50, 55, 60.
2. They do not accept credit earned in City College foundational courses. (These courses are named with only one letter—for example, English K. Other of these courses are numbered from 800 through 899.)
3. They accept transfer credit as indicated above, but do not accept more than 70 semester units of community college credit to be used to satisfy the unit requirements for the baccalaureate degree.
4. They accept partial or full certification of completion of the Lower Division General Education requirements for graduation
from the California State University for courses completed at City College
5. They do not necessarily accept credit that City College has granted for work completed at other collegiate institutions or for The College Board’s AP examinations.
6. They grant six units of credit for one year or more of military service.

American Institutions and United States History Requirement
Candidates for a bachelor’s degree must satisfy the requirement in American Institutions and United States History by completing one course from each of the following two groups:
Group 1. Political Science 1
Group 2. Asian American Studies 20; History 1, 9, 12A, 12B, 17A, 17B, 41A, 41B; Labor and Community Studies 70, 70A, 70B; Latin American and Latino/a Studies 1

General Education Requirements for the California State University (All Campuses)
NOTE: The information below is valid for 2011 – 12. The new 2012 – 13 list is available from a counselor; the Transfer Center; WebAssist, www.assist.org; or the CCSF articulation webpage, www.ccsf.edu/artic.
Requirements for the baccalaureate degree at the California State University include the completion of a minimum of 48 semester units in general education within a prescribed pattern, including 9 semester units of upper-division work. A maximum of 39 semester units may be certified by City College as having met the CSU lower division General Education requirements.
The 39 semester unit pattern is distributed among five broad areas as noted below. City College will certify completion of each area according to the unit limits shown. Students who complete the entire pattern may also petition for the Certificate of Achievement in CSU General Education Breadth.
Students have the option to complete the Intersegmental General Education Transfer Curriculum (IGETC) in lieu of the 39 unit CSU general education pattern.

AREA A: Communication in the English language and critical thinking
(9 certifiable semester units or 12–15 quarter units with at least one course from each of A1, A2, and A3)

A1 Oral Communication:
English as a Second Language 79
Speech 1A, 3, 4, 6, 11, 12, 20

A2 Written Communication:
English 1A

A3 Critical Thinking:
English 1B, 1C
Philosophy 2, 4, 40
Speech 2

AREA B: Physical Universe and its Life Forms
(9 certifiable semester units or 12-15 quarter units required with at least one course each from B1, B2 [at least one to contain a laboratory component identified in B3] and B4)

B1 Physical Science:
Astronomy 1, 14, 17, 18, 19, 20

B2 Life Science:
Anatomy 14, 25
Anthropology 1
Astronomy 4
Biology 9, 11, 20, 30, 32, 40, 100A, 100B
Botany 10
Ecology 20
Genetics 10, 15
Interdisciplinary Studies 1
Microbiology 10, 12
Physiology 1, 12
Psychology 1B
Zoology 10

B3 Laboratory Activity (to be taken with course from B1 or B2)
Anatomy 14, 25
Astronomy 16
Biology 9, 11, 32L, 41L, 100A, 100B
Botany 10
Ecology 20
Genetics 11
Geography 1L
Geology 10L
Microbiology 12
Oceanography 1L
Paleontology 1
Physical Science 11L
Physics 2AL, 2BL, 4AL, 4BL, 4CL, 4DL, 10L
Physiology 1, 12
Zoology 10

B4 Mathematics/Quantitative Reasoning:
Economics 5
Engineering Technology 50
Mathematics 70, 75, 80, 90, 92, 95, 97, 100A, 100B, 110A, 110B, 110C, 115, 120, 125, 130
Philosophy 12A
Psychology 5

AREA C: Arts, literature, foreign language and philosophy
(9 certifiable semester units or 12–15 quarter units with at least one course in the Arts and one course in the Humanities)

C1 Arts:
African American Studies 51, 55
Architecture 31A, 31B, 32, 34, 102
Asian Studies 11
Cinema 18, 21, 23A, 23B
Dance 30, 32, 100A, 107B, 107C
Design 105
Fashion 55
Interior Design 138
Labor and Community Studies 104A, 104B, 104C
Latin American and Latino/a Studies 14
Lesbian/Gay/Bisexual/Transgender Studies 20, 25, 55, 77
Photography 50A, 50B
Speech 38
Theatre Arts 30, 31, 32, 71, 150, 163, 200

C2 Humanities:
African American Studies 30, 35, 40, 50, 51, 60
American Civilization 11A, 11B
American Studies 5
Asian American Studies 6, 10, 30, 35
Asian Studies 12
Broadcast Electronic Media Arts 106
Cinema 20A, 20B, 21, 22
Classics 35
French 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 5, 10A, 10B, 10C, 10D, 10E, 11A, 11B, 41, 42
German 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 11A, 11B
Humanities 7, 8, 11, 12, 20, 25, 35, 41A, 41B, 48
Interdisciplinary Studies 4, 14, 23, 27A, 27B, 29, 30, 36, 37, 38, 42, 44, 45, 47, 100A
Italian 1, 1A, 1B, 2, 2A, 2B, 3A, 3B, 4A, 4B, 10A, 10B, 10C, 10D, 15A, 15B, 41
Japanese 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 39, 49
Latin American and Latino/a Studies 1
Lesbian/Gay/Bisexual/Transgender Studies 11, 12, 15, 75
Philippine Studies 30
Philosophy 2, 4, 25A, 25C
Pilipino 1, 2, 10A, 10B, 10C, 39A, 39B
Russian 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 10A, 10B, 10C, 10D, 15A, 15B, 21, 21A, 21B, 22, 22A, 22B, 39A, 39B, 41
Spanish 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 5, 5S, 6, 6A, 6B, 7, 10A, 10B, 10C, 10D, 31, 31A, 31B, 32, 41
Women's Studies 10

AREA D: Social political and economic institutions and behavior, historical background
(9 certifiable semester units or 12-15 quarter units with courses to be selected from at least two disciplines from the following)

D0 Sociology and Criminology
Administration of Justice 59, 67
Broadcast Electronic Media Arts 103
Lesbian/Gay/Bisexual/Transgender Studies 10
Physical Education 13
Psychology 4
Sociology 1, 2, 25, 30, 35

D1 Anthropology and Archeology
Anthropology 2, 3, 3AC, 4, 5, 8, 11, 12, 15, 19, 20, 25

D2 Economics
Economics 1, 3, 10, 25, 30
Labor and Community Studies 74

D3 Ethnic Studies
African American Studies 30, 31, 60
Anthropology 3AC, 12, 20, 25
Asian American Studies 8, 20, 22, 27, 30, 35, 40, 42
Broadcast Electronic Media Arts 104
Economics 30
History 9, 15A, 15B, 21, 38, 41A, 41B, 44
Interdisciplinary Studies 10D, 37, 40, 45
Labor and Community Studies 100
Latin American and Latino/a Studies 1, 10
Lesbian/Gay/Bisexual/Transgender Studies 50
Political Science 7, 12
Psychology 22, 23

D4 Gender Studies
African American Studies 60
Anthropology 20, 25
Asian American Studies 35
Economics 25
History 12A, 12B, 45
Labor and Community Studies 78A, 78B, 78C
Lesbian/Gay/Bisexual/Transgender Studies 5, 10, 30, 50, 60
Psychology 25
Sociology 25
Women's Studies, 25, 54

D5 Geography
Geography 4, 7

D6 History
Asian History 20
Economics 10
Interdisciplinary Studies 100A
Labor and Community Studies 70A, 70B, 88
Latin American and Latino/a Studies 1

D7 Interdisciplinary Social or Behavioral Science
American Studies 5
Asian American Studies 27
Asian Studies 1
Biology 31
Broadcast Electronic Media Arts 101, 103, 105
Child Development 53, 67, 97
Health Education 10, 46, 52, 110, 221, 231
Interdisciplinary Studies 10D, 17, 28G, 30, 37, 100A
International Business 162
Labor and Community Studies 15, 96C
Latin American and Latino/a Studies 15
Lesbian/Gay/Bisexual/Transgender Studies 30
Philippine Studies 20
Speech 5

D8 Political Science, Government and Legal Institutions
Administration of Justice 57
Interdisciplinary Studies 7
Labor and Community Studies 71A, 71B
Latin American and Latino/a Studies 11, 13
Political Science 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 18, 20, 22, 25, 30, 35, 43, 45, 46, 47, 48, 53A
D9 Psychology
African American Studies 30
Child Development 53,67
Psychology 1, 2, 4, 10, 11, 21, 22, 23, 25, 26, 40
Sociology 30

AREA E: Lifelong understanding and self-development
(3 certifiable semester units or 4-5 quarter units)

African American Studies 70
Dance* 33,34A, 37, 102A-171 series
Disabled Students and Program Services 1
Health Education 10, 14, 20, 25, 26, 27, 33, 41, 45, 48, 52, 53, 54, 64, 72, 97, 120
Interdisciplinary Studies 17, 50
Learning Assistance 50, 60
Lesbian/Gay/Bisexual/Transgender Studies 40, 70
Physical Education* 2, 14, 200A-278 series
Physical Education Athletics* 60-99 series
Psychology 9, 14, 15, 17, 21, 26, 40
Sociology 35

*All DANC/PE/PE A activity credit combined limited to 1 unit

University of California (All Campuses)
Admission Application Dates
To ensure consideration for admission to the campus of first choice, students are reminded to file a UC application during the appropriate Filing Period:

University of California, Berkeley and Merced
Fall Semester: File November 1–30
Spring Semester: File July 1–31
UC Berkeley application is accepted for the fall only

All Other University of California Campuses
Fall Quarter: File November 1–30
Winter Quarter: File July 1–31
Spring Quarter: File October 1–31
For the fall term, all majors and programs are open to new students. Check with the specific campus Admissions Office if applying for other than the fall term.

Apply online, www.universityofcalifornia.edu/apply.

Minimum U.C. Transfer Eligibility Requirements
To be eligible for admission to UC as a transfer student, you must fulfill the following criteria:

1. Complete 60 semester units (90 quarter units) of transferable college credit with a grade point average of at least 2.4. and
2. Complete a course pattern requirement to include:
   - Two transferable college courses (3 semester units or 4–5 quarter units each) in English composition; and
   - One transferable college course (3 semester units or 4–5 quarter units) in Mathematical Concepts and Quantitative Reasoning; and
   - Four transferable college courses (3 semester units or 4–5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences.

The current admission requirements for nonresident transfer applicants are the same as those for residents except that nonresidents must have a grade point average of 2.8 or higher in all transferable college course work.

In recent years, the number of applicants to many campuses and majors has greatly exceeded the spaces available. This increased competition means the University may no longer be able to guarantee admission to all eligible students. When a campus has to choose among qualified students, it applies standards that are more demanding than the minimum requirements. Using a process called comprehensive review, admissions officers look beyond the required course work and grades to evaluate applicants’ academic achievements in light of the opportunities available to them and the capacity each student demonstrates to contribute to the intellectual life of the campus.

Courses from City College of San Francisco Acceptable at All Campuses of the University of California
(The following information is based upon information received from the University at the time of the publication of this catalog. The University may decide after the publication of this catalog to limit or not to accept units earned in some City College courses. Further information, when it is received from the University, will be made available to students online, www.assist.org.)

1. The University of California (all campuses) accepts as elective credit toward graduation the units earned in the courses listed below, subject to the limitations and exclusions noted.
2. The following is a complete list of City College courses for which the University of California accepts credit, subject to the limitations listed. If a City College course does not appear on this list, the course is not accepted for credit by the University of California.

City College courses which are accepted for credit by all campuses of the University of California (valid 2011 – 12):

Academic Achievement Personal Success 103
Administration of Justice 52, 57, 67
African American Studies +10, 30, 35, 40, 50, 51, 55, 60, *70
  *70, PE 14 and *HLTH courses combined: maximum credit, one course
  +Independent Study course — to be reviewed for credit by UC campus upon transfer
American Civilization 11A, 11B
American Sign Language 1A, 1B
American Studies 5
Anthropology 1, 2, *3, *3AC, 4, 5, 8, 11, 12, 15, 20, 25,
  *3 and 3AC combined: maximum credit, one course
Architecture 22A, 29A, 29B, +31A, +31B, 32, +34, 48, 101, 102, 103
  +31A, 31B and 34 combined: maximum credit, two courses
  *Variable Topics course — to be reviewed for credit by UC campus upon transfer
Asian American Studies 6, 8, 10, 20, 22, 27, 30, 35, 40, 42, *65
  *Independent Study course — to be reviewed for credit by UC campus upon transfer
Asian Studies 1, 11, 12, 30
Astronomy *1, 4, 16, *17, *18, *19, 20
  *1, 17, 18, 19 combined: maximum credit allowed, 2 courses

BIOLOGICAL SCIENCES:
Anatomy *14, *25
  *No credit for 14 if taken after 25 or Physiology 1 or 12; 14 or 25 combined with Physiology 1 or 12: Maximum credit, 2 courses.
Anthropology 1
Biology 9, *11, 15, 16, 20, 30, 31, **32, 32L, 40, 41L, 55, 70A, 70B, 100A,100B
*No credit for 11 if taken after Biology 100A,100B
**Same as Interdisciplinary Studies 9

Botany 10
Ecology 20
Genetics *10, 11, *15
*10 and 15 combined: maximum credit allowed, one course

Microbiology 10, 12

Nutrition *12, *52
*12 and 52 combined: maximum credit, one course

Physiology *1, *12, 67
*1 and 12 combined: maximum credit, one course; 1 or 12 combined with Anatomy 14 or 25: maximum credit 2 courses

Zoology +10
++No credit for 10 if taken after Biology 11, 100A,100B, or Physiology 1 or 12

Broadcast Electronic Media Arts 103, 104

BUSINESS:
Accounting 1, 2
Commercial Law 18, 19
General Business 119, 120
Microcomputer Applications for Business +60
+CNIT 100, CS 100M, 101 and MABS 60 combined: maximum credit, one course

Supervision and Business Management 235

Chemistry #40, *101A, 101B, *103A, 107, #110, 110L, 205, **208A, **208B, **212A, **212B
*101A, 103A combined: maximum credit allowed, one course.
#40, 110 combined: maximum credit allowed, one course. No credit for 40, 110 if taken after 101A or 103A
**208A,208B and 212A-212B combined: maximum credit allowed, one series; no credit for 212A if taken after 208AB

Chinese *1, *1A, *1B, +2, +2A, +2B, #3, #3A, #3B, ^4, ^4A, ^4B, 16, 17, 22, 29A, 29B, #31A, #31B, #3
*1AB is equivalent to 1: maximum credit, 6 units;
+2AB is equivalent to 2: maximum credit, 6 units;
#3AB is equivalent to 3: 3AB, and 31AB combined: maximum credit, 6 units;
^4AB is equivalent to 4: maximum credit, 6 units;

Child Development 53, 67, 75

*24, 124A, and 124B combined: maximum credit allowed, one course
**20A, 20B, and LGBT 11 and 12 combined: maximum credit allowed, two courses

Classics 35

Computer Assisted Drafting 181

Computer Networking and Information Technology +100
+CNIT 100, CS 100M, 101, and MABS 60 combined: maximum credit, one course

+CNIT 100, CS 100M, 101, and MABS 60 combined: maximum credit, one course
#160A and 160B must both be taken in order to receive transfer credit
*Independent Study course — to be reviewed for credit by UC campus upon transfer

Culinary Arts and Hospitality Studies 247

*Any or all of these courses, Health 50 and Music 47, (*)Physical Education and (**)Physical Education Athletics courses combined: maximum credit, 4 units

Design 101, 105, 110, 150

Drama (see Theatre Arts)

Economics 1, 3, *5, +10, 25, 30
*5 combined with Mathematics 80 and Psychology 5: maximum credit allowed, one course
+No credit for 10 if taken after History 17A or 17B, or 41A or 41B

Energy 3, 3L

Engineering 1A, 10A, 10B, 20, 20L, 24, 36, 37, 38, 45

*Variable Topics course — to be reviewed for credit by UC campus upon transfer

*Any or all of these courses combined: maximum credit allowed, 8 units

Ethnic Studies (see African American, Asian American, Chinese, Latin American and Philippine Studies)

Fashion 22, 28

French *1, *1A, *1B, +2, +2A, +2B, #3, #3A, #3B, 4, 11A, 11B, **20, 22, 41, 42
*1AB is equivalent to 1: maximum credit, 6 units;
+2AB is equivalent to 2: maximum credit, 6 units
#3AB is equivalent to 3: maximum credit, 6 units
**Independent Study course — to be reviewed for credit by UC campus upon transfer

Game Design Development 130

Genetics (See Biological Sciences)

Geographic Information Systems *110
*Same as GEOG 110

Geography 1, 1L, 4, 7, +41A, *110
*Same as GIS 110
+Same as GEOG +41A

Geology 10, 10L, 11, 18, 30, 30L, +41A
+Same as GEOG +41A

German *1, *1A, *1B, +2, +2A, +2B, #3, #3A, #3B, ^4, ^4A, ^4B, 11A, 11B,
*1AB is equivalent to 1: maximum credit, 6 units;
+2AB is equivalent to 2: maximum credit, 6 units
#3AB is equivalent to 3: maximum credit, 6 units
**4AB is equivalent to 4: maximum credit, 6 units;

Graphic Communications 21, 35, 110A

*Any or all of these courses, AFAM 70, and PE 14 combined maximum credit allowed, one course
+50, Music 47, (*)Dance, (**)Physical Education and (**)Physical Education Athletics courses combined: maximum credit allowed, 4 units

*17A and 17B combined with 41A and 41B: maximum credit allowed, one series
Sociology of San Francisco has granted for work completed at other institutions. vice, nor does the University necessarily accept credit that City College IGETC certification must be completed with grades of "C" or better. A additionally, students who complete the entire IGETC pattern may be credited if all but two courses on the IGETC pattern have been completed. IGETC can be fully certified, though IGETC may now be partially certified. the course requirements for ALL areas must be completed before the IGETC but must be careful to complete all lower division major preparation. USE IGETC OR IF YOU MUST FOLLOW THE CAMPUS-SPECIFICATE CURRICULUM (IGETC) FOR 2011–12
NOTE: The information below is valid for 2011–12. The new 2012–13 list is available from a counselor; the Transfer Center; ASSIST, www.assist.org or the CCSF articulation webpage, www.ccsf.edu/artic.
Completion of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the California State University or the University of California system (generally in those majors at the UC campus which are included in those offered in the College of Letters and Science) without the need, after transfer, to take additional lower-division, general education courses to satisfy campus general education requirements. Students completing the IGETC pattern may petition for a Certificate of Achievement. in general, it is not advisable for transfer students preparing for engineering majors (at any UC campus) to use the IGETC. Students entering "high unit" majors, such as those in the sciences, can follow the IGETC but must be careful to complete all lower division major preparation.
CHECK WITH YOUR COUNSELOR OR THE UC CAMPUS WHICH YOU PLAN TO ATTEND TO DETERMINE IF YOU MAY USE IGETC OR IF YOU MUST FOLLOW THE CAMPUS-SPECIFIC REQUIREMENTS FOR YOUR PARTICULAR MAJOR.
The course requirements for ALL areas must be completed before IGETC can be fully certified, though IGETC may now be partially certified if all but two courses on the IGETC pattern have been completed. Additionally, students who complete the entire IGETC pattern may petition for the Certificate of Achievement in IGETC. ALL courses for IGETC certification must be completed with grades of "C" or better. A grade of Credit or Pass may be used if the community college's policy states it is equivalent to a grade of C or better. For IGETC certification procedures, see a counselor. Courses marked with an "*" have limits placed on transfer credits by UC or CSU. Courses listed in more than one area cannot be certified in more than one area, except for courses in AREA 6: Language Other Than English.

AREA 1: English Communication
CSU—Three courses required—one (1) course from each group
UC—Two courses required—one from Group a, and one from Group b.
Group a—English composition: English 1A
Group b—Critical thinking—English composition:
English 1C, Speech 2
Group c—Oral communication (CSU ONLY): Speech 1A, 3, 4, 20

AREA 2: Mathematical Concepts and Quantitative Reasoning
One course from the following:
Economics *5
Psychology *5

AREA 3: Arts and Humanities
At least three courses, with at least one from the Arts and one from the Humanities, 9 semester units.
Arts:
African American Studies 55
Architecture *31A, *31B, 32, *34
Asian Studies 11
Cinema 18, 23A, 23B
Dance 30, 32
Latin American and Latino/a Studies 14
Lesbian/Gay/Bisexual/Transgender Studies 20, 25, 55, 77
Photography 50A, 50B
Theater Arts 30, 31, 32, 163

Humans:
African American Studies 30, 35, 40, 50, 51, 60
American Civilization 11A, 11B
American Studies 5
Asian American Studies 6, 10, 35
Asian Studies 12
Cinema *20A, *20B, 21, 22
Classics 35
German *3, *3A, *3B, 4, 4A, 4B
Interdisciplinary Studies 4,14, 23, 27A, 27B, 29, 30, 36, 37, 38, 42, 44, 47,100A
Italian 3A, 3B, 4A, 4B, 41
Latin American and Latino/a Studies 1
Lesbian/Gay/Bisexual/Transgender Studies *11, *12, 15, 75
Philippine Studies 30
Philosophy 2, 4, 25A, 25C
Pilipino 39A, 39B
Women's Studies 10

AREA 4: Social and Behavioral Sciences
At least three (3) courses from at least two (2) disciplines or an interdisciplinary sequence. 9 semester units (12–15 qtr. units)
4A- Anthropology: ANTH 2, *3, *3AC, 4, 5, 8, 11, 12, 15, 19, 20, 25
4B- Economics: ECON 1, 3 *10, 25, 30
4C- Ethnic Studies: ASAM 8, 20, 22, 27, 30, 35, 40, 42; BCST 104; HIST 9; IDST 40, 45; LALS 1, 10; LBCS 100; LBGT 50;
4D- Gender Studies: ASAM 35; HIST 45; LGBT 5, 30, 50, 60; WOMN 25
4E- Geography: GEG 4, 7
4G- Interdisciplinary: AMS 5; ASIA 1; BIO 31; CDEV 53, 67; HILTH *10, *231; IDST 10D, 17, 28G, 30, 37, 100A; LALS 15; LBCS 15; PHST 20; SPCH 5
4H- Political Science: IDST 7, LALS 11, 13; POLS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 18, 22, 35, 43, 45, *46, 47, 48
4I- Psychology: PSYC 1, 2, 10, 11, 21, 23, 25, 40
4J- Sociology: ADMJ 67, BCST 103; SOC 1, 2, 25, 30, 35

AREA 5: Physical and Biological Sciences
Two courses, one Physical Science course and one Biological Science course; at least one must include a laboratory (indicated by "L" in parentheses), 7–9 semester units.
Physical Sciences
Astronomy *1, 16L. *17, *18, *19, 20
Chemistry *40L, *10A(L), 10B(L), *103A(L), *110, 110L(L), 205L, *208A(L), *208B(L), *212A(L), *212B(L)
Geography 1, 1L(L)
Geology 10, 10L(L), 11, 18
Oceanography 1, 1L(L)
Paleontology 1(L)
Physical Science *11, 11L(L)
Physics *2A, 2A(L), *2B, 2B(L), *2B, 4B(L), *4A, 4A(L), *4C, 4C(L) *4D, 4D(L), *10, 10L(L), *40, *41

Biological Sciences
Anatomy *14(L), *25(L)
Anthropology 1
Astronomy 4
Biology 9(L), *11L, 20, 32, 32L(L), 40, 41L(L), 100A, 100B(L)
Botany 10(L)
Ecology 20(L)
Genetics *10, 11(L)
Interdisciplinary Studies 9
Microbiology 10, 12(L)
Physiology *1(L), *12(L)
Psychology 1B
Zoology *10(L)

AREA 6: Language Other Than English
(UC requirement ONLY)
Complete ONE of the following to demonstrate proficiency in a language other than English:
1. Two years of high school study in the same language with a grade "C" or better (grammar, vocabulary, reading and composition).
3. Satisfactory score in the SAT II: Subject Test in languages other than English.
If the test was taken before May 1995, the first score is the minimum; if the test was taken after May 1995, use the second score.
Chinese With Listening: 500/520
French/French With Listening: 500/540
German/German With Listening: 500/510
Hebrew (Modern): 500/470
Italian: 500/520
Japanese With Listening: 500/510
Korean/Korean With Listening: not offered before 1995/500
Latin: 500/530
Spanish/ Spanish With Listening: 500/520
4. Score of 3 or better on the AP Exams in languages other than English.
5. Score of 5 or higher on the International Baccalaureate Higher Level Exams in languages other than English.
6. Satisfactory completion of a proficiency test administered by a community college, university or other college in a language other than English.
7. Satisfactory completion with "C" grades or better, of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English. Appropriate documentation of attendance at the secondary school must be presented to CCSF Admissions Office.
8. Score of 5, 6 or 7 on the international A level or grade of A, B, or C on the O level exam in a language other than English.
9. Competency verified by a faculty member associated with a California community college, if an appropriate achievement test is not available.

CSU Only: U.S. History, Constitution and American Ideals
(Not part of IGETC; may be completed prior to transfer.)
Six (6) units, one course from Group 1 (US-2&3) and one course from Group 2 (US-1):
Group 1: Political Science 1;
Group 2: Asian American Studies 20; History 1, 9, 12A, 12B, 17A, 17B, 41A, 41B; Labor and Community Studies 70, 70A, 70B; Latin American and Latino/a Studies 1
Note: Group 1 is Area 7A and Group 2 is Area 7B in the CCSF Banner computerized records.

Course Identification Numbering System (C-ID) The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by individual California community colleges. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on
their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example COMM 110, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID COMM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to www.assist.org to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations. Counselors can help students interpret or explain this information.

Below are CCSF courses that have been approved for C-ID numbers at the time of this catalog's publication. Updated information is available at http://www.c-id.net/course_compare.html.

<table>
<thead>
<tr>
<th>C-ID Number</th>
<th>CCSF Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 110</td>
<td>ADMJ 57</td>
</tr>
<tr>
<td>ARTH 110</td>
<td>ART 101</td>
</tr>
<tr>
<td>CHEM 110</td>
<td>CHEM 101A</td>
</tr>
<tr>
<td>CHEM 120S</td>
<td>CHEM 101A + CHEM 101B</td>
</tr>
<tr>
<td>COMM 110</td>
<td>SPCH 1A</td>
</tr>
<tr>
<td>COMM 140</td>
<td>SPCH 4</td>
</tr>
<tr>
<td>ECE 120</td>
<td>CDEV 65</td>
</tr>
<tr>
<td>ECE 220</td>
<td>CDEV 92</td>
</tr>
<tr>
<td>ECE 230</td>
<td>CDEV 93</td>
</tr>
<tr>
<td>MATH 210</td>
<td>MATH 110A</td>
</tr>
<tr>
<td>MATH 220</td>
<td>MATH 110B</td>
</tr>
<tr>
<td>MATH 230</td>
<td>MATH 110C</td>
</tr>
<tr>
<td>MATH 240</td>
<td>MATH 125</td>
</tr>
<tr>
<td>MATH 250</td>
<td>MATH 120</td>
</tr>
<tr>
<td>MATH 900S</td>
<td>MATH 110A + MATH 110B</td>
</tr>
<tr>
<td>PHYS 205</td>
<td>PHYC 4A + PHYC 4AL</td>
</tr>
<tr>
<td>PHYS 210</td>
<td>PHYC 4B + PHYC 4BL</td>
</tr>
<tr>
<td>PSY 110</td>
<td>PSYC 1</td>
</tr>
<tr>
<td>SOCI 110</td>
<td>SOC 1</td>
</tr>
<tr>
<td>SOCI 115</td>
<td>SOC 3</td>
</tr>
<tr>
<td>SOCI</td>
<td>SOC 35</td>
</tr>
</tbody>
</table>
PROGRAMS AND COURSES

Degree and Certificate Curricula

City College of San Francisco offers degree, credit certificate, and non-credit certificate courses of study.

Degree Curricula

A degree curriculum requires completion of 60 or more semester units (normally two years of full-time work) in conformance with the requirements of a particular department of instruction. (Students who have not satisfied course prerequisites may need more than two years to complete a degree curriculum.) Students who satisfy these requirements receive the degree of Associate in Arts (AA), Associate in Science (AS), Associate of Arts for Transfer (AA-T), or Associate of Science for Transfer (AS-T). General requirements for these degrees are outlined in the Associate Degree Graduation Requirements section of this catalog; information on requirements for the degree majors is detailed in this Programs and Courses section. When choosing courses to satisfy “Additional requirements” listed for a curriculum, students should consult their program adviser or counselor.

Certificate Curricula — Credit

City College offers two types of credit certificates, Certificate of Achievement and Certificate of Accomplishment, which prepare students for entry-level employment or further study, add special knowledge and skills to existing occupational competence, or mark an accomplishment in a particular area.

A Certificate of Achievement is a sequence of courses usually consisting of 18 or more units of degree-applicable coursework that has been approved by the State Chancellor’s Office. Students who successfully petition for a Certificate of Achievement will have the name of the certificate appear on their transcript.

A Certificate of Accomplishment is a sequence of courses consisting of fewer than 18 units of degree-applicable coursework. Students who successfully petition for a Certificate of Accomplishment will not have the name of the certificate appear on their transcript.

Credit that students earn in a certificate curriculum may also be used toward satisfaction of the requirements for graduation from the College with an Associate Degree.

Certificate Curricula — Noncredit

City College offers two types of noncredit certificates, Certificate of Completion and Certificate of Competency, which prepare students for entry-level employment or further study. A Certificate of Completion is a sequence of courses designed to prepare students to progress in a career path or to undertake degree-applicable or non-degree applicable credit courses. A Certificate of Competency is a sequence of courses preparing students to demonstrate achievement in a set of competencies that prepares the student to progress in a career path or to undertake degree-applicable or non-degree applicable credit courses. Some noncredit certificate programs meet required guidelines for student financial assistance.

Course Information

Course Identifiers

Courses are identified by a subject and a number (for example, MATH 97) or by a subject and a letter (for example, ENGL W). In some instances course numbers are followed by letters to indicate that the course is one of a closely related series of courses more than one semester in length: for example, English 1A-1B (a two semester series) and Art 170A-170B-170C (a three semester series). In such a series of courses, each course is prerequisite to the succeeding part unless there is a statement to the contrary.

Units

The number or numbers in parentheses following the title of a course indicate its semester unit (s.u.) value. Note that the semester unit is not equal to a quarter unit (q.u.). (2 s.u. = 3 q.u.)

Method of Delivery

For credit courses, the number of weekly hours of lecture (lec), conference (conf), and/or laboratory (lab) are given. For example, "Lec-3" means that the class meets three hours each week (a college hour is 50 minutes long); "lab-3" means that three hours of laboratory work are required each week of the semester. Independent study (ind st) or work experience (work) courses list the average number of hours of work/study per week. Note that patterns of course delivery other than the semester-long pattern may be chosen by a department. Other patterns include, but are not limited to, one-half semester (about eight weeks), one-third semester (about 6 weeks), or the shortened summer session. The length and number of meetings for these different patterns is determined by the required number of contact hours needed to satisfy the semester-unit value of the course. In addition, some courses are designed to be offered on a basis other than full-semester. Total meeting hours for those courses will be listed, indicated by "total".

Grading

Some courses may be taken on a pass/no pass or a letter grade basis. Others may be taken only on a pass/no pass basis. This is indicated by “P/NP available” and “P/NP only” respectively on the same line as the delivery pattern. In this symbolism “available” means the “P” (pass) or “NP” (no pass) grades are available for the course except for the regular grades of “A” through “F” if the election to take the course for pass/no pass is made at registration or by the end of the first 30% of the term of offering for the course. If no notation occurs regarding pass/no pass, the course is a “letter grade only” course.

Prerequisites, Corequisites, and Advisories

Some courses may require students to have taken a course prior to enrollment (prerequisite), or may require courses to be taken simultaneously (corequisite). Others may have recommended, but not required, preparation (advisory). See page 428 for information about challenging prerequisites.

Repeatability

Some credit courses may be repeated even if a student has taken the course previously. Repeatability limits are typically expressed as a maximum number of units that a student can accumulate in the same course (original enrollment plus any repetitions). In some cases, the repetition limit is expressed as a total number of enrollments (original enrollment plus any repetitions). When a department offers a series of courses on the same topic, and a repetition limit applies across the series of courses, the limit is expressed in terms of a combination of units across the set of courses (e.g., Repeat: PE 275A-275B-275C combination max. 4 units).

Field Trips

Some courses may require field trips; others have optional field trips. The instructor will specify details about any field trips in the course syllabus.

Transferability

A basic description of the course content generally concludes the course announcement. At the end of this description, the abbreviation CSU indicates that the course transfers for elective credit to any California State University, and the abbreviation UC indicates that the course is acceptable for elective credit at all campuses of the University of California. Courses designated as “UC upon review” are
independent studies or variable topics courses which may earn UC elective credit, but which must be evaluated by the UC campus at the time the student is admitted for transfer before credit can be granted.

Course History
If the course recently had a different CCSF course number or if an equivalent CCSF course exists, that information will be the last item in the announcement, for example "Formerly ENGL 5A" or "SPAN 2A-2B = SPAN 2." If the course has been taken under its former number and a grade of C or better or of P has been earned, the newly numbered course may not be taken because the two are really the same. In addition, if two courses are listed as equivalent, only one of the two may be taken.

C-ID Number.
The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by individual California community colleges. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if the course description displays a C-ID number, for example COMM 110, students can be assured that it will be accepted in lieu of a course bearing the C-ID COMM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to www.assist.org to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit. Updated information on C-ID course approvals is available at http://www.c-id.net/course_compare.html.

Schedule of Classes
Students should check the time schedules, published separately, for the times when courses are offered. The schedules also identify the locations at which the courses will be taught. The Time Schedule is available at the College Bookstore; the Office of Admissions and Records, Room 107, Conlan Hall; and the Registration Center, Room 104, Smith Hall. To see Time Schedule online, visit: http://www.ccsf.edu/Schedule

Administraion of Justice and Fire Science
Office: Batmale 213
Phone Number: 239-3202
Web Site: www.ccsf.edu/admnjust

Announcement of Curricula
General Information
This Department offers curricula in two fields—Administration of Justice and Fire Science Technology. Each two-year curriculum is designed to prepare students for civil-service and related private sector employment and also satisfies College graduation requirements. The following is a description of the program.

Administration of Justice
Degree Curriculum
The curriculum in administration of justice is arranged to meet the needs of three groups of students: those who plan to seek employment with public and private agencies concerned with maintaining public safety, crime prevention, treatment, rehabilitation and research; those who are employed by a correctional or law-enforcement agency and desire to obtain training for promotion; and those who desire to obtain background in administration of justice in preparation for the study of policing, probation and parole, social welfare, law, and non-profit community corrections.

Admission. Enrollment is open to all interested students.

Course of Study. The two-year course of study includes instruction in the following: introduction to administration of justice, principles and procedures of the justice system, criminal identification, criminal law, organized crime and gangs, criminal investigation, physical evidence, narcotic investigation, probation and parole, juvenile procedures, and law enforcement field work. Beside instruction in administration of justice, the curriculum includes course work in general education so that students may satisfy the College graduation requirements in this area.

Credit for Preservice Training in Administration of Justice.
Administration of Justice majors who have completed a minimum of 12 semester units at City College, and who have also completed a preservice administration of justice-training program certified by the Commission on Peace Officers Standards and Training of the Department of Justice of the State of California, may petition the Administration of Justice Department for six semester units to be applied toward completion of the curriculum in administration of justice. A transcript or other acceptable evidence of completion of the preservice training program must be submitted with the petition.

Approval of Instruction. The curriculum is offered in cooperation with local agencies concerned with the administration of justice and is reviewed annually by an advisory committee composed of persons active in the field of law enforcement. In-service courses within the curriculum are certified by the Commission on Peace Officers Standards and Training of the Department of Justice of the State of California.

Employment. Students who complete the curriculum satisfactorily may be qualified to take civil-service examinations for employment with federal, state, county, and city agencies in capacities such as the following: investigator; forensic identification, highway patrol, correctional officer; juvenile counselor; police officer; or deputy sheriff. Graduates are also qualified for employment as private investigators and private security officers.

Administration of Justice Major (AS)
The course of study is designed so that students may satisfy the requirements for graduation from the College. Students who satisfy the graduation requirements and complete 18 units from the list below with a final grade of C (2.00 grade-point average) or higher for each course receive the Associate in Science Degree in Administration of Justice. The 18 units will be selected according to the student’s educational and occupational objectives.

Courses taken to fulfill requirements for the Associate in Science in Administration of Justice will not be consecutively applied toward course work requirements for a certificate of accomplishment in Forensic Identification.

Courses Required for the Major in Administration of Justice
Students must select a minimum of 18 units from the following electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 52 Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 57 Intro to the Administhr of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 51 Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 80 Parole and Probation Sys</td>
<td>3</td>
</tr>
</tbody>
</table>
ADMJ 53 Legal Aspects of Evidence .................. 3
ADMJ 54 Prin and Proc of the Justice Sys .................. 3
ADMJ 59 Organized Crime and Gangs .................. 3
ADMJ 70A Patrol Procedures .......................... 3
ADMJ 62 Criminal Investigation .......................... 3
ADMJ 64 Community Relations & Policing .................. 3
ADMJ 65 Narcotic Investigations .......................... 3
ADMJ 63 Criminal Identification .......................... 3
ADMJ 66 Physical Evidence .......................... 3
ADMJ 67 Terrorism and Counterterrorism .................. 3
Additional graduation requirements
Total Units Required ................................ 18

Recommended electives: BSEN 70; F SC 62; F SC 17; HUM 11; PHIL 12A, 40; POLS 7, 20; PSYC 1, 22, 23; SOC 1, 2, 30, 35; MABS 35; ZOOL 10; LALS 10.

Certificate Curricula
The certificate program is designed to meet the needs of students who want to obtain entry-level positions and/or promotional positions within law enforcement agencies in the public sector and employment opportunities within the private security sector. It also provides students who are currently employed in law enforcement an opportunity to increase their knowledge in the field of Administration of Justice and enhance their skills and abilities as police officers, correctional officers, probation and/or parole officers, investigators and private security officers. This program also provides an opportunity for students returning to college after completing an Associate in Arts/Science or Baccalaureate degree in other fields to earn a certificate in Administration of Justice without completing the general education requirements for graduation from City College.

Administration of Justice Certificate
This certificate is available for persons who do not choose to complete the general education requirements for graduation. Fifteen (15) units of Administration of Justice courses are required, and at least 9 units must be completed at City College of San Francisco for this certificate.

A student may obtain the Certificate of Accomplishment by completing 15 units from each of the courses offered in the certificate program with a grade of C or higher while at City College. Pass/No Pass grades will not be accepted toward completion of a certificate program.

Courses Required for the Certificate of Accomplishment in Administration of Justice

Students must select a minimum of 15 units from the following electives:

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 51 Juvenile Procedures</td>
</tr>
<tr>
<td>ADMJ 52 Concepts of Criminal Law</td>
</tr>
<tr>
<td>ADMJ 53 Legal Aspects of Evidence</td>
</tr>
<tr>
<td>ADMJ 54 Prin and Proc of the Justice Sys</td>
</tr>
<tr>
<td>ADMJ 57 Intro to the Administ of Justice</td>
</tr>
<tr>
<td>ADMJ 59 Organized Crime and Gangs</td>
</tr>
<tr>
<td>ADMJ 62 Criminal Investigation</td>
</tr>
<tr>
<td>ADMJ 63 Criminal Identification</td>
</tr>
<tr>
<td>ADMJ 64 Community Relations &amp; Policing</td>
</tr>
<tr>
<td>ADMJ 65 Narcotic Investigations</td>
</tr>
<tr>
<td>ADMJ 66 Physical Evidence</td>
</tr>
<tr>
<td>ADMJ 67 Terrorism and Counterterrorism</td>
</tr>
<tr>
<td>ADMJ 70A Patrol Procedures</td>
</tr>
<tr>
<td>ADMJ 80 Parole and Probation</td>
</tr>
<tr>
<td>Total Units Required</td>
</tr>
</tbody>
</table>

Forensic Identification Certificate

This certificate program is designed to meet the needs of students who want to obtain entry-level positions and/or promotional position in law enforcement agencies within the public sector and employment within the private security sector. It also provides the student who is currently employed in law enforcement an opportunity to increase their knowledge in the field of forensic identification and enhance their skills and abilities as an investigator.

A student may obtain the Certificate of Accomplishment by completing each of the courses offered in the certificate program with a grade of C or higher while at City College. Pass/No Pass grades will not be accepted toward completion of a certificate program. All five core courses are required and at least 9 units must be completed at City College of San Francisco for this certificate. Courses taken to fulfill the requirement for the Certificate of Accomplishment in Forensic Identification cannot be applied toward coursework requirements for a Certificate of in Administration of Justice.

Courses Required for the Certificate of Accomplishment in Forensic Identification

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
</tr>
<tr>
<td>ADMJ 52 Concepts of Criminal Law</td>
</tr>
<tr>
<td>ADMJ 62 Criminal Investigation</td>
</tr>
<tr>
<td>ADMJ 63 Criminal Identification</td>
</tr>
<tr>
<td>Second Semester</td>
</tr>
<tr>
<td>ADMJ 66 Physical Evidence</td>
</tr>
<tr>
<td>ADMJ 53 Legal Aspects of Evidence</td>
</tr>
<tr>
<td>Total Units</td>
</tr>
</tbody>
</table>

Fire Science Technology

General Information
The curriculum in Fire Science Technology is designed to provide training for three groups of students: those who plan to seek employment as members of city and county fire departments and other governmental agencies that involve fire prevention, fire investigation, fire suppression, and fire protection engineering; those who are employed in the fire service who want further technical training to prepare for promotion; and those who plan to seek private employment as safety instructors in industry, insurance adjusters, fire-protection technicians, fire equipment salespeople, and fire-equipment installers.

Admission. Enrollment is open to all interested students.

Course of Study. The California Community College Association of Fire Technology Directors recommends that five courses be offered as a basis for all fire technology programs in the State of California. These courses are: introduction to fire protection, fire prevention, fire protection equipment and systems, building construction for fire protection, fire behavior and combustion. Principles of fire emergency services, safety and survival. These courses serve as the basis of the fire science technology program at City College of San Francisco along with a pre-hospital emergency care and Wildland fire control courses. This curriculum represents the base knowledge, the foundation, upon which a student can build, regardless of where he/she works in the fire protection field.

Fire Science Technology Major (AS)

Students completing the Fire Science Technology Major will be eligible for career positions such as Firefighter, Fire Prevention Specialist, Wildland Firefighter, Fire Investigator, Fore Engineer, Fire Hydraulics,

Upon completion of this major, students will be able to:

- Identify minimum qualifications and entry-level skills for fire fighter hiring.
- Demonstrate the ability to analyze, appraise and evaluate fire and emergency incidents and identify components of emergency management and fire fighter safety.
- Identify and comprehend laws, regulations, codes and standards that influence fire department operations.
- Analyze the causes of fire, determine extinguishing agents and methods, differentiate the stages of the fire and fire development, and compare methods of heat transfer.
- Identify and describe the apparatus used in the fire service, and the equipment and maintenance of fire apparatus and equipment.
- Identify and describe common types of building construction and conditions associated with structural collapse and firefighter safety.
- Differentiate between fire detection and fire suppression systems.
- Describe the Interface Zone (I-Zone) in wildland fire, describe the parts of a wildland fire, use of resources on a wildland fire, differentiate between strike teams and task forces, utilize the Incident Command System in a wildland fire situation, describe safety concerns to firefighters in wildland fire situation.
- Explain the operation of a Fire Prevention Bureau in a fire department.
- Describe a fire prevention program, implement a fire prevention plan in areas such as public buildings, commercial buildings, schools, and multi-family residences;

Students must complete six of the eight core courses at CCSF.

**Courses Required for the Major in Fire Science Technology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F SC 50 Intro to Fire Science</td>
<td>3</td>
</tr>
<tr>
<td>or F SC 110 Basic Fire Academy*</td>
<td>7</td>
</tr>
<tr>
<td>F SC 52A Fire Protection Equip &amp; Sys</td>
<td>3</td>
</tr>
<tr>
<td>F SC 53 Bldg Constr for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>F SC 55 Wildland Fire Control</td>
<td>3</td>
</tr>
<tr>
<td>F SC 57 Principles of Fire/Emergency Services, Safety and Survival</td>
<td>3</td>
</tr>
<tr>
<td>F SC 61A Fund of Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>F SC 64 Fire Behavior &amp; Combustion</td>
<td>3</td>
</tr>
<tr>
<td>F SC 17/HLTH 17 Public Safety - Emergency Medical Response</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective course: Choose 3 units from the following**:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F SC 51A Fire Tactics and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>F SC 60 Fire Apparatus &amp; Equipment</td>
<td>3</td>
</tr>
<tr>
<td>F SC 61B Fund of Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>F SC 62 Rescue Practices</td>
<td>3</td>
</tr>
<tr>
<td>F SC 70 Fire Investigation</td>
<td>3</td>
</tr>
<tr>
<td>F SC 105A-F Fire Protection Work Exp</td>
<td>1-3</td>
</tr>
<tr>
<td>F SC 111M Firefighter One Academy*</td>
<td>11</td>
</tr>
<tr>
<td>F SC 150 Fire Service Career Preparation</td>
<td>2</td>
</tr>
<tr>
<td>LBCC 90D Labor Relations in Workforce Education</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units .............................................. 27-28

* Students who take F SC 110 do not need to take an elective course.

**Certificate Curricula**

The certificate programs are designed to meet the needs of students who want to obtain entry-level positions in the fire protection field whether in the public or the private sector. They also provide a course of study for the student who is currently employed in public fire suppression that leads to a rating of fire officer after completing the required courses which mirror the California State Fire Marshal’s course content. These programs also provide an opportunity for students returning to college after completing a degree in other fields to earn a certificate in fire protection or earn a rating of fire officer without completing the general education requirements for graduation from City College. Two certificate programs are available, a certificate in fire protection and a certificate as a fire officer which can also be applied for through the State Fire Marshal’s Office.

**Requirements for the Certificate of Accomplishment or Achievement.** A student may obtain the Certificate of Accomplishment or Achievement by completing each of the courses offered in the certificate program with a grade of C or higher while at City College. Pass/No Pass grades will not be accepted toward completion of a certificate program.

**Firefighter 1 Academy Certificate**

Includes the principles, procedures, and techniques of firefighting and rescue. Technical and manipulative skills and concepts of fire control, fire behavior, tactics and strategy, and emergency management will be reviewed and put into practice during this course. The student will be trained according to the National Fire Protection Association, Standard 1001. Students completing this certificate program will be qualified to test for employment with agencies and departments hiring entry level firefighters.

Upon completion of this certificate, students will be able to:

- Define the role and responsibilities of the 1st Responder within the Emergency Medical System
- Demonstrate ability to perform a primary and secondary survey of the patient and provide appropriate first aid care until advanced medical services arrives.
- Demonstrate ability to perform a primary and secondary survey of the patient and provide appropriate first aid care until advanced medical services arrives.
- Identify, describe, and demonstrate manipulative skills on first aid care for traumatic, medical and environmental emergencies
- Apply the Incident Command System to fire service operations
- Identify ordinances, laws and regulations pertaining to the fire service
- Identify fire department functions and operations
- Identify the characteristics of fire, fire behavior, fire cause and origin
- Compare and contrast the affects of strategy and tactics on fireground operations
- Identify heavy rescue equipment, self-contained breathing apparatus, and manipulative hand tools used in the fire service
- Identify building construction types, building features, key building components, and types of interior finishes and materials used in the construction of buildings
- Identify fire service equipment, such as ladders, fire hose, fire appliances, water supply devices, salvage and overhaul equipment
• Define and explain Hazardous Materials Operations Awareness concepts
• Define and explain Confined Space Operations concepts
• Demonstrate a base understanding of terminology and concepts of wildland fire
• Analyze the components of physical fitness and apply fundamental principles of each component as it relates to either firefighting or public safety tasks
• Estimate, classify, and perform individual load bearing conditioning as related to functionally related tasks
• Distinguish and prevent task training and activity related injuries with consideration to specific training session work load
• Analyze cardio-respiratory conditioning and apply as related to physical training and firefighting and public safety tasks
• Integrate, synthesize and apply proper individual running protocols to efficiently meet firefighter and public safety task requirements

Students must complete each course with a grade of C or higher. Where applicable, grades of Pass may be used. Students must complete six units of F SC 111 Firefighter One Academy prerequisites at City College of San Francisco.

Courses Required for the Certificate of Achievement in Firefighter One Academy

First Semester

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F SC 50 Intro to Fire Science</td>
<td>3</td>
</tr>
<tr>
<td>F SC 17/HLTH 17 Public Safety-Emergency Medical Response</td>
<td>3</td>
</tr>
<tr>
<td>PE 29 Firefighter and Public Safety Conditioning</td>
<td>2</td>
</tr>
<tr>
<td>F SC 115 Incident Command System 200</td>
<td></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F SC 105A/B Fire Protection Work Experience</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>21</td>
</tr>
</tbody>
</table>

In addition to satisfying course prerequisites, students must have documented clearance from a licensed physician to participate in intensive physical activity required of the F SC 111 Firefighter One Academy Program.

EMT 100 or EMT 101 and EMT 101A and EMT 101B or EMT-Paramedic or National Registry Emergency Medical Technician (NREMT) or equivalent is acceptable for F SC 17/HLTH 17 Public Safety First Responder.

• ADVISORY Preparation for F SC 111: F SC 52A or F SC 53 or F SC 55 or F SC 57 or F SC 61A or F SC 64.

Fire Officer Certificate

This certification follows the course content of the California Fire Service Training and Education System’s (CFSTES) recommendations. Each course offered utilizes the training manuals published by this organization, each course is registered with the CFSTES, and the instructors are registered instructors with the CFSTES.

The certificate program is open to persons who are currently employed as firefighters or who want to become firefighters. Upon completion of these courses, City College will award a certificate as Fire Officer. If one wants to apply for this rating through the State Fire Marshal’s Office, one has to follow the guidelines established by the SFM (this procedure is outlined during each course by the instructor).

A certificate is awarded upon completion of the required courses (20.5 units total). At least 12 of the units must be completed at CCSF in order to receive this certificate.

Courses Required for the Certificate of Achievement in Fire Officer

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F SC 68A Fire Prevention IA</td>
<td>2</td>
</tr>
<tr>
<td>F SC 68B Fire Prevention IB</td>
<td>2</td>
</tr>
<tr>
<td>F SC 74A Training Instructor IA</td>
<td>2</td>
</tr>
<tr>
<td>F SC 74B Training Instructor IB</td>
<td>2</td>
</tr>
<tr>
<td>F SC 84 Fire Mgmt 1</td>
<td>2</td>
</tr>
<tr>
<td>F SC 88A Fire Command IA</td>
<td>2</td>
</tr>
<tr>
<td>F SC 88B Fire Command IB</td>
<td>2</td>
</tr>
<tr>
<td>F SC 88C Fire Command IC</td>
<td>2</td>
</tr>
<tr>
<td>F SC 72 Fire Investigation IA</td>
<td>2</td>
</tr>
<tr>
<td>F SC 115 Incident Command System 200</td>
<td>1</td>
</tr>
<tr>
<td>F SC 120 Incident Command System 300</td>
<td>1.5</td>
</tr>
<tr>
<td>Total Units</td>
<td>20.5</td>
</tr>
</tbody>
</table>

Fire Protection Certificate

This program is for returning students who have a college degree in another field but who want a certificate in Fire Protection for employment purposes or for career advancement. It is also available for persons who do not want to complete the general education requirements for graduation. All five core courses are required and at least nine units must be completed at City College of San Francisco for this certificate in Fire Protection.

Courses Required for the Certificate of Accomplishment in Fire Protection

<table>
<thead>
<tr>
<th>Courses:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F SC 50 Intro to Fire Science</td>
<td>3</td>
</tr>
<tr>
<td>F SC 52A Fire Protect Equip &amp; Sys</td>
<td>3</td>
</tr>
<tr>
<td>FSC 64 Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>F SC 53 Bldg Constr &amp; Fire</td>
<td>3</td>
</tr>
<tr>
<td>F SC 61A Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Announcement of Courses

Administration of Justice

Credit, Degree Applicable Courses:

ADMJ 51. Juvenile Procedures (3)
Lec-3
The causes of juvenile delinquency on a local and state level. The organization, functions, and jurisdiction of juvenile agencies; new studies and theories in the processing and detention of juveniles; practical case studies; new research in delinquency control; juvenile statutes and court procedures. CSU

ADMJ 52. Concepts of Criminal Law (3)
Lec-3
Principles of California Criminal Law, including laws of arrest, search, and seizure, applicable sections of the Constitution of the United States and relevant cases as they apply to and affect contemporary law. Aspects of the Penal Code and other criminal statutes required for a comprehensive understanding. CSU/UC
ADMJ 53. Legal Aspects of Evidence (3)
Lec-3
Not open to students who have completed L A 70
The kinds and degrees of evidence; rules governing the admissibility of evidence in court. CSU

ADMJ 54. Principles and Procedures of the Justice System (3)
Lec-3
Review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state, and civil law as they apply to and affect law enforcement. CSU

ADMJ 57. Introduction to the Administration of Justice (3)
Lec-3
A critical thinking exploration of historical and contemporary issues in criminal justice. This includes the study and analysis of the core principles underlying the criminal justice system, components of the American criminal justice system (police, courts, and corrections), criminal behavior theory, crime categories, policing models, and career opportunities. CSU/UC (C-ID AJ 110)

ADMJ 59. Organized Crime and Gangs: A Social, Cultural and Legal Perspective (3)
Lec-3
Investigation of the etiology of organized crime and gangs. Exploration of the social and cultural characteristics of organized crime and gangs. Historical development and influence of organized crime and gangs and their relevance to the administration of justice in America. CSU

ADMJ 62. Criminal Investigation (3)
Lec-3
Fundamentals of investigation: crime scene search and recording; collection and preservation of physical evidence; scientific aids, modus operandi; sources of information; interviews and interrogations; follow-up and case preparation. CSU

ADMJ 63. Criminal Identification (3)
Lec-3
The theory of and practices in the science of fingerprints, including classification, filing, comparisons, latent technology, preservation of evidence, court testimony, rolling prints, computer and the law as it pertains to criminal identification. Other aspects of personal identification and skeletal identification, portrait parle, composites, and basic camera procedures are also presented. CSU

ADMJ 64. The Evolution of Community Relations During the Community Policing Era (3)
Lec-3
Prereq.: ADMJ 57
An examination of the evolution of police-community relations as it relates to the current community-policing era. Interrelationships and leadership role expectations among police and the public. CSU

ADMJ 65. Narcotic Investigations (3)
Lec-3
Theory and fundamentals of the problems of a narcotic investigation with a special emphasis on the San Francisco Bay Area. Study of the principles of drug investigations, including the recognition, identification, and effects of specific drugs; undercover investigations; the investigator in court; and other topics related to narcotic investigations. CSU

ADMJ 66. Physical Evidence (3)
Lec-3
The interrelationships of the law enforcement officer and the criminalist. Illustrations of physical evidence from actual cases of crime detection; the basic concepts, and procedures of criminalistics and the role of the criminalist from the standpoint of the investigating officer. Laboratory problems and projects of special interest. CSU

ADMJ 67. Terrorism and Counterterrorism (3)
Lec-3, field trips P/NP available
This course introduces the issues of terrorism, terrorist tactics, terrorist ideology, and the terrorist threats to public safety as well as methods and techniques of countering terrorism and preparing for and dealing with its impacts. CSU/UC

ADMJ 68. Criminal Justice Report Writing (3)
Lec-3 P/NP available
Prereq.: ENGL 93 or placement in ENGL 96
This course will introduce students to relevant paradigms and issues related to producing accurate and objective investigative police reports. Students will learn the criminal justice report writing process that includes accurate note taking during the interview and interrogation process and the completion of legally sufficient criminal justice system reports inclusive of police reports, presentencing reports, and/or probation or parole reports. This course requires intensive writing assignments and deadlines. CSU

ADMJ 70A. Patrol Procedures (3)
Lec-3, field trips P/NP available
Not required of Administration of Justice majors employed in law enforcement work
Responsibilities of and techniques and methods used by police officers on patrol; field applications of principles taught in previous courses in Administration of Justice. Define the basic function and purpose of police patrol and describe the law enforcement mission and explain its purpose. Discuss the legal and constitutional basics for all police powers. CSU

ADMJ 70B-70C-70D. Police Department Field Work (3-3-3)
Lec-3, work-6 P/NP available
Classes need not be taken in sequence.
Not required of Administration of Justice majors employed in law enforcement work
Field application of principles taught in previous courses in Administration of Justice. Individual experience and training in an Administration of Justice agency, or service in the Campus Police Department. The student must satisfy the placement requirements of the agency in which he plans to serve. CSU

ADMJ 75. Introduction to Industrial and Retail Security (3)
Lec-3
A survey of current problems in industrial and retail security, with emphasis on crime prevention. CSU

ADMJ 76. Introduction to Private Security (3)
Lec-3
Theory and practice in the private security field. Study of the skills necessary for a security professional. Review of organizational and management issues, and relations with law enforcement. CSU
ADMJ 80. Introduction to Probation and Parole (3)
Lec-3
Designed to explore in a cooperative and participatory manner administrative organization and management in probation and parole systems; recruitment, training, assignment, and supervision of probation and parole officers, and case loads. Emphasis on relating general principles to existing systems, as well as on the nature of interagency organization and relationships. CSU

ADMJ 82A-82B. Criminal Justice Work Experience (3-3)
Confl-1, work-12
Practice working in a local criminal justice agency under the supervision of employees currently working in the field. Development of professional attitudes; application of principles; exposure to methods and problems. Weekly seminars to evaluate and review progress. CSU

ADMJ 85. RC. 832 – Police Reserve Training (3)
Lec-3, lab-10 (total hrs)
Repeat: every three years as mandated by P.O.S.T.
This course is mandated by the State of California Commission on Peace Officer Standards and Training for all persons appointed as Reserve Police Officers as well as various institutional, park ranger and other peace officer positions. CSU

ADMJ 86. Basic Traffic Accident Investigation (2)
Lec-40 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
This course develops skills and knowledge to properly investigate and document traffic accidents. It provides officers with the basic requirements for investigating a traffic accident and for completing a standard traffic accident report. CSU

ADMJ 87. Skid Mark Analysis (2)
Lec-40 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
This course is devoted to the basics of Tire Mark Identification and Analysis. Course content will include: identification of the various types of tire marks, documentation and measurements, terms and definitions relating to tire mark investigations, case preparation and courtroom testimony, determination of the coefficient of friction and drag factor, and speed estimates using various equations. CSU

ADMJ 88. Law Enforcement and the Media (1)
Lec-16 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
This course is designed to help police personnel understand the role of the Public Affairs/Public Information Office, policy regarding news media contacts, and learning how the role of community policing interfaces with the media. CSU

ADMJ 89. Continuing Professional Training (2)
Lec-40 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
This course is designed to provide police personnel with mandated training in Legal Updates, Risk Management, Community Policing, First Aid and CPR, and Arrest and Control Techniques. CSU

ADMJ 90. Arrest/Search Warrant Service and Obtainment (2)
Lec-40 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
The student will learn the circumstances where the obtainment of an arrest and/or search warrant is necessary for the proper seizure of suspect(s) and evidence. They will further learn the procedures for the obtainment of these warrants as well as the essential aspects of planning and executing these warrants. CSU

ADMJ 91. Rejuvenating the School Resource Officers (2)
Lec-40 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: Every two years as mandated by P.O.S.T.
This course is designed to educate and provide School Resource Officers with: the history of the Juvenile Justice System, the policy and procedures of the diversion program(s), developing effective communication skills, rapid identification of resources/referral services for juveniles, practical exercises for creating effective school presentations, and a quick code guide familiarization with school crime codes. CSU

ADMJ 92. Instructor Development (2)
Lec-40 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: Every two years as mandated by P.O.S.T.
The student will learn teaching techniques which include: personal introductions, listening skills, mechanics of speech delivery, effective use of educational aids, topic development, adult learning concepts, ethics, participant behaviors, educational presentations, basic course instructional systems, and integrating the workbook into the basic course. CSU

ADMJ 93. Technology Crime Investigation (1.5)
Lec-24 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: As determined by the S.F.P.D.
This course provides knowledge and skills to investigate high technology crime. It includes the identification of various computer components, disk storage media, and other devices used in high tech crimes. Students will learn to apply State and Federal statutes. Hands-on training includes proper seizing and packaging of a micro-computer, various other components, and search warrant preparation and execution. CSU

ADMJ 94. Community Oriented Policing and Problem Solving (1.5)
Lec-30 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: As recommended by P.O.S.T.
This course introduces active police officers and sergeants to the methods and philosophy of Community Oriented Policing and Problem solving. It also familiarizes police personnel with the goals, objectives, duties, and responsibilities associated with Community Oriented Policing and Problem Solving (COPPS). CSU

ADMJ 95. Field Training Officer Course (2)
Lec-40 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: As approved by P.O.S.T.
This course will provide the student with an understanding of the key elements of successful field training programs, how such programs can be properly administered, and the contribution necessary for them to make the program work. CSU

ADMJ 96. Crisis Communication for First Responders (1)
Lec-16 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: As approved by P.O.S.T.
This course is designed to enhance the communications and crisis intervention skills of the patrol officer, provide him/her new commu-
nifications and intervention skills, and build officer confidence in the employment of such skills. CSU

ADMJ 97. Drug Abuse and Recognition (2)
Lec-36 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: As approved by P.O.S.T.
This course teaches the student how to identify the narcotics, and instructs, through a hands on preparation phase, how an addict prepares heroin for injection, and how cocaine hydrochloride is converted into cocaine base. CSU

ADMJ 98. Search Warrants and Arrests (1)
Lec-16 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: As determined by P.O.S.T.
This course will instruct police personnel in the proper procedures for obtaining search and arrests warrants. CSU

ADMJ 100. Emergency Vehicle Operation (1)
Lec-18 (total hrs)
Prereq.: Must be a current Law Enforcement Officer
This two day Advanced Officer Course is designed to instruct and reinforce the participant's knowledge in the lawful requirements of operating an emergency vehicle during Code 3 and Pursuit conditions. CSU

ADMJ 101. Basic Police Academy (16)
Lec-25, lab-15 (25 wks)
Prereq.: Pass the State P.O.S.T. (Commission on Peace Officer Standards and Training) reading and writing exam or be hired by a P.O.S.T approved agency; Department of Justice Clearance; Medical Verification: obtain clearance from a licensed Physician to participate in intensive Physical Activity Commensurate with a Police Academy.
Principles, procedures, and techniques of law enforcement; criminal law, patrol procedures, investigative procedures, writing law enforcement reports, defensive and offensive tactics, use of weapons, community relations, police vehicle operations, traffic enforcement, investigation of accidents, first aid and CPR; and the academic and physical skill training and assessment required by the state to meet the minimum standards to be eligible for employment as a peace officer in California. CSU

ADMJ 51, 52, 53, 54, 57, 70A, 70B, 70C, and 70D will not be accepted in lieu of those subjects taught in ADMJ 101.

ADMJ 102. Bicycle Patrol (1.5)
Lec-24 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Repeat: max. 4.5 units
This course will instruct police personnel in the proper procedures for riding a bicycle safely while on patrol. CSU

ADMJ 103. Investigative Techniques for Patrol (1)
Lec-10, lab-6 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Law enforcement officers examine and analyze critical investigative techniques and develop knowledge of strategic law enforcement skills in the documentation of crime facts. CSU

ADMJ 104. Rifle Marksmanship (2)
Lec-14, lab-26 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Sworn police officers will develop and execute basic hyper-marksman-ship tactics and concepts. CSU

ADMJ 105. Stress in the Police Workplace (1)
Lec-16 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Police officers identify, examine and analyze psychological, social and behavioral factors that have historically contributed to law enforcement stress; evaluate options and formulate strategies for managing and reducing stress in the workplace. CSU

ADMJ 106. Haz Mat Police First Responder (2)
Lec-22, lab-7 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Police first responder management of hazardous material, recognition of hazardous materials, hazard assessment and command action, tactics, strategies and effective countermeasures to hazardous incidents. CSU

ADMJ 107. NBC Police Haz Mat First Responder (.5)
Lec-8, lab-1 (total hrs) P/NP available
Prereq.: Must be a current Law Enforcement Officer
Overview of biological, chemical and nuclear weapons and their use in acts of terrorism; law enforcement tactical and strategic countermeasures for hazardous material releases, decontamination strategies, incident and mass casualty management and resource utilization. CSU

ADMJ 108. Arrest and Control Training (1)
Lec-16, lab-8 (total hrs) P/NP only
Prereq.: Must be a current Law Enforcement Officer
Develop knowledge and understanding of the critical force continuum; Identify and process critical force applications, skills and decision making; Discuss, analyze and develop skills for transporting prisoners safely and humanely. CSU

ADMJ 109. Booking and Detention (.5)
Lec-8 (total hrs) P/NP only
Prereq.: Must be a current Law Enforcement Officer
Develop knowledge and understanding of guidelines and procedures pursuant to Booking and detention of prisoners at police district temporary holding facilities. CSU

ADMJ 110. Basic Investigations (4)
Lec-74 (total hrs) P/NP only
Prereq.: Law Enforcement Officer as full-time follow-up investigator
This eighty (80) hour Advanced Officer Course is designed to formulate and synthesize the participant’s knowledge in follow-up investigations through the use of adult experience-based learning techniques. CSU

ADMJ 111. Domestic Violence Investigation (2)
Lec-40 (total hrs) P/NP only
Prereq.: Must be a current Law Enforcement Officer
This course is designed to develop and reinforce those skills necessary in conducting successful domestic violence investigations. CSU
ADMJ 114. DUI Recognition Update (1)  
Lec-16 (total hrs)  
P/NP only  
**Prereq.: Must be a current Law Enforcement Officer**  
This course is designed to provide current law enforcement officers with the most current information on legal aspects of DUI, pre-arrest screening (FST's), blood alcohol testing administrative per-se, and preparing police reports. Emphasis is placed on the experiential aspects of an investigation of a DUI offense, from initial detection through courtroom testimony. CSU

ADMJ 115. Officer Safety/Field Tactics (2)  
Lec-32 (total hrs)  
P/NP only  
**Prereq.: Must be a current Law Enforcement Officer**  
The focus of this course is to enhance current law enforcement officer shooting skills in life-threatening situations as well as their skills in handgun manipulations. The course consists of handgun training scenarios, searching techniques and participation in two field training exercises involving critical incidents. Live fire at the range and simulations during scenarios are employed to duplicate real life situations. CSU

ADMJ 150. Public Safety Dispatch Course I (3)  
Lec-3  
**Prereq.: ENGL 93 or 94 or placement in ENGL 96**  
Students will develop knowledge and skills in communications and understand the role and function of the public safety dispatcher and develop an understanding of the Criminal Justice System. CSU

ADMJ 151. Public Safety Dispatch Course II (3)  
Lec-3  
**Prereq.: ENGL 94 or placement in ENGL 96**  
Students will develop knowledge of the public safety dispatcher in handling criminal calls for service, especially child abuse, hate crimes, domestic violence and elder abuse. CSU

ADMJ 152. Public Safety Dispatch Course III (3)  
Lec-3  
**Prereq.: ENGL 94 or placement in ENGL 96**  
Students will develop knowledge and skills in understanding the critical role the public safety dispatcher plays within the emergency system. CSU

**Fire Science**

**Credit, Degree Applicable Courses:**

F SC 17. Public Safety - Emergency Medical Response (3)  
Lec-3  
P/NP available  
One of four Pre-requisites for CCSF’s Fire Academy. At the conclusion of this course students will be able to: recognize a medical emergency, activate the Emergency Medical System, provide basic life support until Advanced Life Support arrives. This course meets National Highway Traffic Safety guidelines for Emergency Medical Responder 2009. CSU  
F SC 17 = HLTH 17

F SC 50. Introduction to Fire Science (3)  
Lec-3  
P/NP available  
An introduction to the fire service, this course examines fire technology, department organizational structures, Incident Command System, fire protection systems and equipment, and provides an overview of careers in fire investigation, fire prevention, and fire suppression. The class meets the needs for Fire Fighter I and II certification of the National Fire Protection Association’s (NFPA*) Standard 1001. CSU

F SC 51A. Fire Tactics and Strategy (3)  
Lec-3  
Fire suppression organization; fire suppression equipment; characteristics and behavior of fire; fire hazard properties of ordinary materials; building design and construction; extinguishing agents; basic fire fighting tactics; public relations. CSU

F SC 52A. Fire Protection Equipment and Systems (3)  
Lec-3  
A study of automatic sprinkler systems, standpipe systems, fire detection devices and systems, manual fire suppression equipment, water supplies, extinguishing agents, pumps used in fire protection, and special extinguishing systems. CSU

Lec-3  
Components of building construction that relate to fire safety. Key factors of construction and design of structures when inspecting buildings, preplanning fire operations, and operating at fires. Development and evolution of building and fire codes in relationship to fires in residential, commercial, and industrial occupancies. CSU

F SC 55. Wildland Fire Control (3)  
Lec-3  
Wildland fire behavior, fireline safety, fire prevention, fire extinguishment methods, initial attack strategy and tactics, incident command system, fireground communications, use of engine companies, use of aircraft, use of hand crews and bulldozers, wildland/urban firefighting strategies and tactics, and firefighting situations. CSU

F SC 57. Principles of Fire and Emergency Services; Safety and Survival (3)  
Lec-3, field trips  
P/NP available  
**Prereq.: F SC 50**  
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for emergency and non-emergency situations. The course curriculum will be guided by NFPA standards, such as NFPA 1500, Fire Department Occupational Health and Safety Programs. CSU

F SC 60. Fire Apparatus and Equipment (3)  
Lec-3  
History, construction and operation of pumping engines, aerial ladders, aerial platforms, specialized equipment, driving techniques, driving laws, apparatus maintenance; orientation and use of fire department equipment as it relates to firefighting. CSU

F SC 61A-61B. Fundamentals of Fire Prevention (3-3)  
Lec-3 ea.  
**F SC 61A is not prerequisite to FSC 61B.**

A study of the history of fire prevention, fire behavior and effects, building design, fire prevention codes and standards, and the recognition of common and special hazards and their abatement. How to conduct a fire safety inspection and apply applicable codes and standards. CSU

F SC 62. Rescue Practices (3)  
Lec-3  
Addresses the components of rescue including vehicle extrication and rescue, confined space, trench, and excavation rescue scenarios and aquatic response emergencies. Provides a look at current technologies, an overview of heavy vehicle rescue, and an awareness of operational issues confronting basic level rescue providers. CSU
F SC 64. Fire Behavior and Combustion (3)  
Lec-3  
Theory and fundamentals of how and why fires start, spread, and are controlled; in-depth study of fire chemistry and physics, characteristics of materials, extinguishing agents, and fire control techniques. CSU

F SC 68A. Fire Prevention 1A (2)  
Lec-2  
P/NP available  
First of a two-part series and a standard State Board of Fire Services accredited course; one of eight classes required for State Fire Officer 1 certification. A broad, technical overview of fire prevention codes and ordinances, inspection practices, and key hazards. Includes flammable and combustible liquids and gases, explosives, fireworks, and extinguishing systems. CSU

F SC 68B. Fire Prevention 1B (2)  
Lec-2  
P/NP available  
Second of a two-part series and a standard State Board of Fire Services accredited course; one of eight classes required for State Fire Officer 1 certification. A broad, technical overview of fire prevention codes and ordinances, inspection practices, and key hazards. Includes flammable and combustible liquids and gases, explosives, fireworks, and extinguishing systems. CSU

F SC 69. Fire Prevention for the Company Officer, Fire Prevention I (2)  
Lec-40 (total hrs), field trips  
P/NP available  
Prereq.: Completion of a CA State-certified Fire Academy Fire prevention fundamentals for developing fire prevention techniques at the company officer level; the student will learn: basic fire code, construction, occupancy types, fire and life safety; conducting inspections, recording inspection reports, and communicating deficiencies and violations to obtain proper correction or mitigation. This course is intended for working firefighters. CSU

F SC 70. Fire Investigation (3)  
Lec-3  
Study of the various components of fire investigation: causes of fire (accidental, suspicious and incendiary); types of fires, chemistry/physics of fire; related laws; introduction to arson and incendiarism, recognition and preservation of evidence; interviewing witnesses and suspects; court procedures and giving testimony; introduction to terrorist tactics. CSU

F SC 72. Fire Investigation 1A (2)  
Lec-2  
P/NP available  
A standard State Board of Fire Services accredited course; one of eight classes required for State Fire Officer 1 certification. An introduction and basic overview of fire scene investigation. The focus of this course is to provide information on fire scene indicators and to introduce fire personnel to concepts of investigation. This course meets Fire Investigator I certification from the California State Fire Marshall’s office. CSU

F SC 73. Fire Investigation 1B: Techniques of Fire Investigation (2)  
Lec-7 (5 wks), field trips  
P/NP available  
Instruct public sector and private sector personnel on the correct techniques applicable to the investigation of a fire scene. Training will include topics including motives of fire setters, scene safety for investigators, properly documenting and handling evidence at the fire scene, interviewing and interrogation, processing the scene where a fatality or serious injury has occurred, properly using resource information and building plans. Course meets the partial requirements for Fire Investigator I and has been accredited by the State Board of Fire Services. CSU

F SC 74A. Training Instructor 1A (2)  
Lec-2  
P/NP available  
Cognitive (lecture) instructional techniques for training firefighter’s in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations. CSU

F SC 74B. Training Instructor 1B (2)  
Lec-2  
P/NP available  
Psychomotor (hands-on) lecture techniques for training Firefighter’s using the latest methods in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching psychomotor lessons; criteria and methods to evaluate teaching and learning efficiency; and apply major principles of learning through teaching demonstrations. CSU

F SC 74C. Training Instructor 1C (2)  
Lec-40 (total hrs)  
P/NP available  
Advise: F SC 74A and F SC 74B  
Techniques for developing cognitive and psychomotor instructional training for firefighters using the latest methods in career education; researching, selecting, creating, organizing, and using instructional materials to construct lesson plans; criteria and methods to evaluate teaching and learning effectiveness; and application of major principles of learning through teaching demonstrations. CSU

F SC 84. Fire Management 1 (2)  
Lec-2  
P/NP available  
A standard State Board of Fire Services accredited course; one of eight classes required for State Fire Officer 1 certification. Preparation or enhancement of the first line supervisor’s ability to supervise subordinates. Introduction to key management concepts and practices utilized in the California Fire Service. Includes decision making, time management, leadership styles, personnel evaluations, and counseling guidelines. CSU

F SC 88A. Fire Command 1A (2)  
Lec-2  
P/NP available  
First of a two-part series and a standard State Board of Fire Services accredited course; one of eight classes required for State Fire Officer 1 certification. The course provides the student with an introduction to Fire Ground Command Operations including elements of Fire Behavior, Fire Ground Management and use of Fire Ground Resources. The course uses basic I.C.S. techniques and is designed to give the new Fire Officer an understanding of overall fireground operations. CSU

F SC 88B. Fire Command 1B (2)  
Lec-2  
P/NP available  
Second of a two-part series and a standard State Board of Fire Services accredited course, one of eight classes required for State Fire Officer 1 certification. The course provides the student with an overall concept for Company Operations. The course uses basic I.C.S. techniques and is designed to give the new Fire Officer an overall introduction to safety and handling of emergency incidents. CSU
F SC 88C. Fire Command 1C (2)
Lec-2, field trips P/NP available
Prereq.: F SC 88A, 88B, and 115 within the past year
F SC 88C (Fire Command 1C) trains students utilizing case studies and simulations in leadership principles, fire behavior, fire prediction systems, Incident Action Planning, communications, wildfire strategy and tactics in Urban Interface Fire Fighting (I-Zone). CSU

F SC 90. Driver/Operator 1A (2)
Lec-2 P/NP available
Information on driver techniques for emergency vehicles and techniques of basic inspection and maintenance for emergency vehicles, including actual driving exercises under simulated emergency conditions. Applicable to Driver/Operator I certification from the State Fire Marshal's Office. CSU

F SC 105A-F. Fire Protection Work Experience (1-3)
Work:5–15 P/NP available
Prereq.: F SC 50
Repeat: max. 6 units
Application of knowledge gained in F SC 50, Introduction to Fire Science, a survey course of the Fire Protection field. The student will work at a firehouse, or at the fire Department Chairquarters, or at a specialty unit of the S.F.F.D. and be evaluated on their job performance by personnel assigned to that unit. The student will be able to identify at the conclusion of this experience whether the fire protection field is a career goal for them. No class in the sequence is prerequisite to another. CSU

F SC 105A-B. Fire Protection Work Experience (1)
Work-5
F SC 105C-D. Fire Protection Work Experience (2)
Work-10
F SC 105E-F. Fire Protection Work Experience (3)
Work-15

F SC 106. High Rise Fire Safety Director (1.5)
Lec-1.5 P/NP available
Advise: ENGL 90 or ESL 150 or placement in ENGL 92 or ESL 160
Provides basic knowledge and skills in the preparation of facility emergency plans; fire prevention and protection; life safety systems; evacuation and relocation procedures; earthquake preparedness; management of various emergencies and coordinating with emergency responders. CSU
F SC 106 = JRNY 106

F SC 110. Basic Fire Academy (7)
Lec-4, lab-9 (16 wks)
Prereq.: Pass the Civil Service examination for H-2 Firefighter; pass the physical agility examination; pass the SFFD background history investigation; pass the medical verification examination given by the SFFD Physician
This intensive 16 week course includes principles, procedures and techniques of fire fighting. Students will learn technical and manipulative skills necessary in basic concepts of fire control, fire behavior and tactics and strategy. Students will learn laws and regulations affecting the fire service, use of fire service tools and equipment, apparatus, hose, ladders, breathing apparatus, ropes, and medical skills and equipment for EMT certification. Meets state fire marshal requirements for Firefighter 1 certification. CSU

F SC 111. Firefighter One Academy (11)
Lec-8, lab-9, field trips P/NP available
Prereq.: F SC 50, F SC 115, HLTH 17/F SC 17, PE 29, and clearance from licensed physician
Coreq.: F SC 105A or 105B
Advise: PE 50C; and F SC 52A or 53 or 55 or 57 or 61A or 64
Includes the principles, procedures, and techniques of firefighting. Technical and manipulative skills and concepts of fire control, fire behavior, and tactics and strategy will be reviewed and put into practice during this course. The student will be trained according to the National Fire Protection Association, Standard 1001. CSU

F SC 112. Refresher Firefighter Academy (1)
Lec-5, lab-35 (total hrs), field trips P/NP available
Prereq.: F SC 111
Includes the operational procedures and techniques of using firefighting equipment. Technical and manipulative skills required in fireground operations and various emergency scenarios will be reviewed and put into practice during this course. A classroom component will address firefighter safety and the reinforcement of safe practices. CSU

F SC 115. Incident Command System 200 (1)
Lec-16 (total hrs), field trips P/NP available
Course consists of modules 2 through 6 and has been determined by the National Wildfire Coordination Group (NWCG) as meeting the training needs of wildland fire personnel for ICS. Basic ICS introduces principles associated with the ICS. It covers organization, facilities, resource terminology and the common responsibilities or general instructions associated with incident or event assignment. CSU

F SC 120. Incident Command System 300 (1.5)
Lec-24 (total hrs) P/NP available
Prereq.: F SC 115
Course consists of modules 7 through 11 and has been determined by National Wildfire Coordinating Group (NWCG) as meeting the training needs of wildland fire personnel for ICS. Intermediate ICS expands on Basic ICS, but does not repeat Basic ICS. It provides more description and detail of the organization and operation of the ICS, management of resources, describes the duties of all positions including the Air Operations organization, and provides examples of how the essential principles are used in incident and event planning. CSU

F SC 125. Incident Command System 400 (1.5)
Lec-24 (total hrs), field trips P/NP available
Prereq.: F SC 120
Advanced Incident Command System 1-400 provides more description and detail of the command and general staff positions and introduces major incident management utilizing unified and area com-mand management concepts. Numerous classroom exercises developing an Incident Action Plan will be developed by the students using unified/area command techniques. CSU

F SC 140. Weapons of Mass Destruction, First Responder (1)
Lec-16 (total hrs), field trips P/NP available
Prereq.: F SC 120
Training for First Responders in the recognition, identification, notification and self-protection knowledge required to safely become aware of and activate the emergency response system in the event of a weapons of mass destruction incident. Also, training to operate in a support zone safely assisting emergency services personnel to mitigate the incident. CSU
F SC 150. Fire Service Career Preparation (3)
Lec-3, field trips P/NP available
Prereq.: F SC 50
Fire Science 150 includes the principles, procedures, and best practices for obtaining a job in the fire service. Strategies for success, career track planning, setting career goals, resume writing, and test taking and interview skills will be emphasized and put into practice during this course. CSU

African American Studies
Office: Science 222
Phone Number: (415) 239-3510
Web Site: www.ccsf.edu/african

Announcement of Courses
Credit, Degree Applicable Courses:
AFAM 10. Independent Studies in African American History (3)
Ind st-3
Repeat: max. 6 units
An individual reading or research program. CSU (UC upon review)

AFAM 30. African American Consciousness (3)
Lec-3, field trips P/NP available
A historical overview of the development of Black psychology; the relationship between values and beliefs in developing a healthy Black identity in childhood, adolescence, adulthood, and old-age; an analysis of cultural, educational, economic, social, and political influences that impact on Black family life. CSU/UC

AFAM 31. The African American Athlete (3)
Lec-3 P/NP available
An in-depth look at the challenges that were and are faced by African American athletes in the U.S. CSU

AFAM 35. African-American Religion (3)
Lec-3
An examination of the religious experience of African-Americans with emphasis on the evolution of Afro-Christianity beginnings of the African-American church. It will examine African Traditional Religion and Islam. The course will also cover the role of African American religion during slavery up to the Civil Rights Movement to the present day. CSU/UC

AFAM 40. The Black Experience in California: 1500 to the Present (3)
Lec-3, field trips
The role of Africans in the creation of California as a geopolitical and cultural entity; includes use of primary source materials and personal family histories. CSU/UC

AFAM 50. Black Cinema (3)
Lec-3, field trips
Early film history (1895-1950) from an African American, Africentric perspective. Films/videos shown will include work on and by African Americans. Genres shown will include narrative and experimental as well as documentary. CSU/UC

AFAM 51. Contemporary Black Cinema (3)
Lec-3
Contemporary film history (1950 to present) from an African American, Africentric perspective. Films/videos shown will include work by African American, African, and diaspora film/videomakers.

Genres shown will include narrative and experimental as well as documentary. CSU/UC

AFAM 55. From Funk to Hip Hop (3)
Lec-3 P/NP available
African American beliefs and cultural outlook as reflected through the aesthetics and politics of black popular music from the Black Revolution of the 1960s, up to and including Hip-Hop. CSU/UC

AFAM 60. The African American Woman in the United States (3)
Lec-3
The Black woman in America from 1619 to the present. Particular emphasis on contributions she has made to the society. CSU/UC

AFAM 70. African American Health Issues (3)
Lec-3, field trips
Major health problems in the African American community with emphasis on health promotion and disease prevention. Examines the relationship between contemporary health practice and beliefs and those of ancient African people. Social and economic issues and the impact on the delivery of health care. CSU/UC

ART 107. African American Art History (3)
Lec-3, field trips
A brief survey of the art of West African civilizations and art history of African Americans from the colonial to contemporary time. All art will be discussed from both a critical and historical perspective, with regard to formal visual elements of style and the societies, values and ideas that gave birth to African American art. CSU/UC

BCST 104. Race and Media (3)
Lec-3, field trips
Advise: ENGL 93 or 94 or placement in ENGL 96
A historical study of the image of African Americans, Asians, Hispanics, and other racial groups as projected through the mass media of print, film, radio, television, and recorded music. Ways in which the affected groups have responded to these images through general and ethnic media outlets. CSU/UC

ECON 30. Economics of the African American Community (3)
Lec-3 P/NP available
An introduction to the principles of Black political economy. Black employment, employment discrimination, Black capitalism, the Black underclass, homelessness, and community economic development. Examination of the empirical link between race, class and income distribution. CSU/UC

ENGL 32A. Early African American Fiction (3)
Lec-3 P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
Not open to students who are enrolled in or who have completed ENGL 34A.
A survey course designed to explore and analyze African American fiction from 1890 to 1940. CSU/UC

ENGL 32B. Contemporary African American Fiction (3)
Lec-3 P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
Not open to students who are enrolled in or who have completed ENGL 34B.
An in-depth survey course designed to explore and critically analyze significant literary works of fiction by African American writers from 1940 to the present. CSU/UC
ENGL 34A. Early African American Fiction (3)  
Lec-3  P/NP available  
Not open to students who are enrolled in or who have completed ENGL 32A.  
A survey course designed to explore and analyze African American fiction from 1890 to 1940. CSU

ENGL 34B. Contemporary African American Fiction (3)  
Lec-3  P/NP available  
Not open to students who are enrolled in or who have completed ENGL 32B.  
An in-depth survey course designed to explore and critically analyze significant literary works of fiction by African American writers from 1940 to the present. CSU

ENGL 36. African American Literature—A Survey (3)  
Lec-3  P/NP available  
Prereq.: ENGL 96 or Placement in ENGL 1A  
Reading and analysis of formal and informal literary expressions of African Americans, from slavery to the present. CSU/UC

ENGL 37. African American Women in Literature (3)  
Lec-3, field trip  P/NP available  
An intensive examination of the literary efforts of African American women writers beginning with the Slave Narratives to the present. CSU/UC

LGBT 50. Gay/Lesbian/Bisexual/Transgender Communities of Color in the U.S. (3)  
Lec-3  P/NP available  
Examination of the formation of lesbian/gay/bisexual and transgender identities and communities among people of color in the United States. Included are African Americans, Native Americans, Asian Americans, Pacific Islanders, and Chicano/Latinos. CSU/UC. 
Formerly GLST 50

HIST 38. The Antebellum South in American History (3)  
Lec-3  P/NP available  
The antebellum South; its history, system of race relations, social institutions, art, and unique culture. CSU/UC

HIST 41A-41B. The African American in the United States (3)  
Lec-3  P/NP available  
The political, social, artistic, and cultural history of the African American in the United States, from the African heritage to the present. CSU/UC

HIST 23. African American Women in the Creative Arts (3)  
Lec-3  P/NP available  
An intensive examination of the creative efforts of African American women visual artists, entertainers, performers, and writers from 1753 to the present. CSU/UC

IDST 23. African American Women in the Creative Arts (3)  
Lec-3  P/NP available  
An intensive examination of the creative efforts of African American women visual artists, entertainers, performers, and writers from 1753 to the present. CSU/UC

IDST 37. Racial and Ethnic Groups in the United States - A Comparative Survey (3)  
Lec-3  P/NP available  
An interdisciplinary survey of the history, culture, problems, and conditions of American ethnic minorities and the effects of racism, prejudice, and discrimination on emerging minority groups in the United States. CSU/UC

IDST 44. African Literature (3)  
Lec-3  P/NP available  
An extensive examination of the composite of Africa's literary art from literature in the oral tradition and in the vernacular languages to modern literature written in vehicular languages, languages of the colonizers. Analysis of successive attitudes of the Western world toward the Black race as related by African writers from 1890 to 1960, the most important historical period in African literature south of the Sahara. CSU/UC

IDST 70. Architecture and Diversity (3)  
Lec-3, field trips  P/NP available  
An introductory critical review of the building and design heritage of women all over the world and of indigenous people's architecture in Africa and Latin America from tribal dwellings to monumental structures, followed by a series of architectural and engineering studios introducing students to basic building and design skills: developing a project, drawing a floor plan, building an architectural model, using drafting tools and computers. Emphasis on hands-on skills. CSU

MUS 8A–8B. Jazz and Other Popular Piano Styles (1)  
Lec-3, field trips  P/NP available  
Advisa: MUS 9A  
Repeat for MUS 8A: max. 2 units; Repeat for MUS 8B: max. 3 units  
A study of basic jazz, rock, gospel, blues, and folk piano techniques. CSU/UC

MUS 21. Traditional African Music (3)  
Lec-3, field trips  P/NP available  
A survey of the function of traditional music in Africa and how it is organized as an integral part of everyday activity. Emphasis on practical application. CSU/UC

MUS 23. Jazz History: Musical Traditions of the African American (3)  
Lec-3, lab-1, field trips  P/NP available  
Lectures, discussions, assigned reading and listening designed to explore the musical heritage of the African American, including spiri-
A survey of political development and change in contemporary Africa, with emphasis on Africa south of the Sahara. Major factors shaping African politics and institutions; ideology, nationalism, colonialism, political groups, and nation-building. CSU/UC

**MUS 26. Music in American Culture (3)**

Lec-3, lab-1, field trips  
P/NP available
A survey of music generated by America's diverse populations including Latino, African American, Hawaiian, Native American, Cajun, and Puerto Rican. CSU/UC

**MUS 41. African Drumming Ensemble (1)**

Lab-3, field trips  
P/NP available
The content of this course varies. Students may re-enroll without repeating subject matter.
African drumming studies and performance of music integral to everyday life in Africa. A review of the function of traditional music in Africa. CSU/UC

**DANC 130A-130B-130C. Jazz Dance (1-1-1)**

Lab-2  
P/NP available
Repeat: Combination max. 4 enrollments
Beginning, intermediate, and advanced jazz dance techniques, patterns, routines, choreography, and improvisation. CSU/UC

**DANC 132A-132b-132C. African-Haitian Dance (1-1-1)**

Conf-1, lab-1  
P/NP available
Repeat: Combination max. 4 enrollments
Beginning, intermediate, and advanced study of African-Haitian dance as a vehicle to understand and appreciate the impact and manifestation of the African culture in the Caribbean and North America. CSU/UC

**DANC 137A-137B. Hip-Hop Dance (1-1)**

Lab-2  
P/NP available
Repeat: Combination max. 4 enrollments
Beginning and intermediate hip-hop dance techniques, patterns, routines, choreography and improvisational group projects/presentations. CSU/UC

**POLS 7. American Politics and the African American Community (3)**

Lec-3  
P/NP available
American political institutions and their relationship to African Americans. The unique manner in which Black people have had to function both within and outside of the political system. The future of African American politics. CSU/UC

**POLS 48. Government and Politics of Africa (3)**

Lec-3  
P/NP available
A survey of political development and change in contemporary Africa, with emphasis on Africa south of the Sahara. Major factors shaping African politics and institutions; ideology, nationalism, colonialism, political groups, and nation-building. CSU/UC

**PSYC 22. Psychology of Race and Ethnic Relations (3)**

Lec-3  
P/NP available
Not open to students who are enrolled in or who have completed PSYC 23.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. CSU

**PSYC 23. Psychology of Race and Ethnic Relations (3)**

Lec-3  
P/NP available
Prereq.: PSYC 1
Not open to students who are enrolled in or who have completed PSYC 22.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. CSU/UC

**TH A 163. Multicultural Theatre (3)**

Lec-3  
P/NP available
Evaluation and demonstration of the importance of the origins of the Asian, African and Latin theatre in the development of the Asian American African American and Latin American cultures that form part of the American society of today. CSU/UC

### Aircraft Maintenance Technology

**Office:** Airport
**Phone Number:** (415) 239-3901
**Web Site:** [www.ccsf.edu/aeronaut](http://www.ccsf.edu/aeronaut)

### Announcement of Curricula

#### General Information

City College of San Francisco offers two years of specialized training for students desiring preparation for employment as aircraft technicians maintaining powerplants, airframes, or avionics equipment.

#### Learning Outcomes

**Employment.** Students who successfully complete the degree or certificate curricula are qualified for employment in various positions, including those in the following fields:

- Powerplant Maintenance—Entry positions as accessory mechanic, general powerplant mechanic, maintenance-crew member, ramp service-crew member, and hangar-crew member. Positions to which graduates may advance after obtaining experience and further training include those of aircraft powerplant technician (licensed), supervisor, and inspector.

- Airframe Maintenance—Entry positions as general aircraft-overhaul mechanic, accessory mechanic, electric-shop mechanic, general cabin-equipment mechanic, maintenance-crew member, ramp-service crew member, and hangar-crew member. Positions to which graduates may advance after obtaining experience and further training include those of airframe technician (licensed), supervisor and inspector.

- Avionics Maintenance—Entry positions as avionics technician, radio/electric line mechanic. Positions to which graduates may advance after obtaining experience and further training include those of lead systems specialist, supervisor and inspector.

**Federal Certification.** The Federal Aviation Administration permits those who hold the Associate of Science (or the Certificate of Completion) in Aircraft Powerplant Maintenance Technology to take the examination for the F.A.A. Powerplant Certificate. The Federal Aviation Administration permits those who hold the Associate of Science (or Certificate of Completion) in Airframe Maintenance Technology to take the examination for the F.A.A. Airframe Certificate.
Aircraft Maintenance Technology

Courses Required for the Majors in Aircraft Maintenance Technology

Training in the Major. In the first semester, students obtain broad background in aircraft maintenance by taking the following technical courses common to all options in the curriculum: Introduction to Aircraft Maintenance, and Basic Electricity and Electrical Systems. In the second, third, and fourth semesters, students take specialized technical courses in the various options.

Aircraft Maintenance Technology

Aircraft Powerplant Maintenance Technology Major (AS)

Second Semester
AIRC 103 Powerplant Theory & Maint .......................... 8
AIRC 104 Propul Powerplant Sys .......................... 8
Additional graduation requirements

Third Semester
AIRC 105 Powerplant Comp .......................... 8
AIRC 106 Aircraft Metal Struct .......................... 8
AIRC 116 Aircraft Material Process .......................... 1
Additional graduation requirements

Fourth Semester
AIRC 107 Hydr, Pneum & Cabin .......................... 8
AIRC 108 Rigging & Electr Sys .......................... 8
AIRC 115 Aircraft Mat Proc .......................... 1
Total Units .......................... 66

Airframe-Maintenance Technology Major (AS)

Second Semester
AIRC 103 Powerplant Theory & Maint .......................... 8
AIRC 104 Propul Powerplant Sys .......................... 8
Additional graduation requirements

Third Semester
AIRC 106 Aircraft Metal Struct .......................... 8
Additional graduation requirements

Fourth Semester
AIRC 107 Hydr, Pneum & Cabin .......................... 8
AIRC 108 Rigging & Electr Sys .......................... 8
AIRC 115 Aircraft Mat Proc .......................... 1
Total Units .......................... 57

Avionics-Maintenance Technology Major (AS)

Second Semester
AIRC 103 Powerplant Theory & Maint .......................... 8
AIRC 104 Propul Powerplant Sys .......................... 8
Additional graduation requirements

Third Semester
AIRC 113 Avionics Comm & Navig .......................... 7
Additional graduation requirements
Total Units .......................... 39

Certificate Curricula

General Information


Admission. Enrollment in any of the following certificate curricula is open to those students who have been admitted to the Aircraft Maintenance Technology Department.

Aircraft Powerplant Maintenance Technology Certificate

Requirements for the Certificate of Achievement. Students may obtain the Certificate of Achievement in Aircraft Powerplant Maintenance Technology by passing a departmental final examination with a grade of B or higher and by receiving a final grade of C or higher in all of the following courses:
Courses Required for the Certificate of Achievement in Aircraft Powerplant Maintenance Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 101 Intro to Aircraft Maintenance</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 102 Basic Electrical Systems</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 103 Powerplant Theory &amp; Maintenance</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 104 Propul Powerplant Sys</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 105 Powerplant Comp</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 116 Aircraft Material Process</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>

Employment. The program of study in the Certificate Curriculum in Aircraft Powerplant Maintenance Technology is designed so that students may gain the skills and knowledge required for employment in various capacities in powerplant maintenance for aircraft. Entry positions for which students who obtain the Certificate of Achievement in this curriculum are qualified include those of accessory mechanic, general powerplant mechanic, maintenance-crew member, ramp service-crew member, and hangar crew member. Positions to which students may advance after gaining experience and undertaking further study include those of powerplant technician (licensed), supervisor, and inspector.

Permission to Take F.A.A. Examination. The Federal Aviation Administration has approved the Certificate Curriculum in Aircraft Powerplant Maintenance Technology, and permits those who hold the Certificate of Achievement in Powerplant Maintenance Technology to take the examination for the F.A.A. Powerplant Certificate.

Airframe-Maintenance Technology Certificate

Requirements for the Certificate of Achievement. Students may obtain the Certificate of Achievement in Airframe-Maintenance Technology by passing a departmental final examination with a grade of B or higher and by receiving a final grade of C or higher in all of the following courses:

Courses Required for the Certificate of Achievement in Airframe-Maintenance Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 101 Intro to Aircraft Maintenance</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 102 Basic Elect Sys</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 106 Aircraft Metal Struct</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 107 Hydr, Pneum &amp; Cabin Sys</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 108 Rigging &amp; Elect Sys</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 115 Aircraft Mat Proc</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>

Employment. The program of study in the Certificate Curriculum in Airframe-Maintenance Technology is designed so that students may gain the skills and knowledge required for employment in various capacities in airframe maintenance for aircraft. Entry positions for which students who obtain the Certificate of Achievement in this curriculum are qualified include those of radio/electric line mechanic, accessory mechanic, maintenance-crew member, ramp service-crew member, and hangar-crew member. Positions to which these students may advance after gaining experience and undertaking further study include those of airframe technician (licensed), supervisor, and inspector.

Permission to Take F.A.A. Examination. The Federal Aviation Administration has approved the Certificate Curriculum in Airframe-Maintenance Technology, and permits those who hold the Certificate of Achievement in Airframe-Maintenance Technology to take the examination for the F.A.A. Airframe Certificate.

Avionics-Maintenance Technology Certificate

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Avionics-Maintenance Technology by completing the following requirements with a final grade of C or higher in each course:

Courses Required for the Certificate in Avionics-Maintenance Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 113 Avionics Comm Navig</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>

Employment. The program of study in the Certificate Curriculum in Avionics-Maintenance Technology is designed so that students may gain the skills and knowledge required for employment in various capacities in avionic maintenance for aircraft. Entry positions for which students who obtain the Certificate of Accomplishment in this curriculum are qualified include those of radio/electric line mechanic, accessory mechanic, maintenance-crew member, ramp service-crew member, and hangar-crew member. Positions to which these students may advance after gaining experience and undertaking further study include those of airframe technician (licensed), supervisor, and inspector.

The Avionics Certificate Curriculum consists of course work in both Engineering Technology and Aircraft Maintenance Technology. This allows students to further their study in both engineering and avionics.

Announcement of Courses

Credit, Degree Applicable Courses:

AIRC 101. Introduction to Aircraft Maintenance (8)
Lec-5, lab-10, field trips
Introduction to the general section of the aircraft maintenance technician program. Orientation to the aircraft industry. Many aspects pertaining to aircraft maintenance will be covered. CSU

AIRC 102. Basic Electricity and Electrical Systems (8)
Lec-5, lab-10, field trips
An introduction to the principles of electricity applicable to the responsibilities of the aircraft technician in maintaining F.A.A. airworthiness standards. Short review of basic mathematics within the scope of aircraft applied technology. Introduction to aircraft structural materials, heat treating, aircraft hardware, and weight and balance control are also surveyed. CSU

AIRC 103. Powerplant Theory and Maintenance (8)
Lec-5, lab-10, field trips
AIRC 101 AND 102
ADVICE: AIRC 101 AND 102
Procedures of powerplant maintenance with reciprocating engines. Construction of and overhaul techniques of powerplant to F.A.A. requirements. The use of tools and equipment to maintain airworthy standards of repair to powerplants. CSU

AIRC 104. Propulsion Powerplant Systems (8)
Lec-5, lab-10, field trips
Complete coverage of the powerplant electrical system, including the ignition system used for all propulsion powerplants. The maintenance of fire detection and protection systems and the internal and external powerplant lubricating system. Procedures of powerplant mainte-
nance with turbine engines and propulsion units. Construction of the overhaul techniques of powerplants to F.A.A. requirements. CSU

AIRC 105. Powerplant Components and Propellers (8)
Lec-5, lab-10
Theoretical and practical approach to fuel system control and the maintenance of each system component. The theory applied to propulsion and the practical application of propeller maintenance to Federal Aviation Administration standards. CSU

AIRC 106. Aircraft Metal Structures (8)
Lec-5, lab-10, field trips
Advisement: AIRC 101 and 102
The technological approach towards the complex airframe structures and the stresses absorbed by the skin coverings. Emphasis on construction and maintenance of these metal structures. Applied methods of airworthy repairs, including the forming processes, the bonding surfaces, plastic and honeycomb repairs, the fusing of metals and its limitations, fire detection, and ice detection systems. Emphasis on the proper use of tools and equipment needed for approved repairs to metal structures. CSU

Lec-5, lab-10
This course acquaints students to the theoretical and practical experiences needed in aircraft hydraulic, pneumatic, landing gear, fire, ice and rain control systems. CSU

AIRC 108. Rigging and Electrical Systems (8)
Lec-5, lab-10, field trips
F.A.A. requirements applied to techniques of rigging aircraft, controls, and control surfaces. A short introduction to the wood structures and fabric covering along with the maintenance techniques. Applied theory of finishes and their effects on flight conditions. Maintenance techniques in electrical wiring, control switches, indicators, and protective devices. Troubleshooting and repairing of alternating-current electrical systems. CSU

AIRC 109. Materials Laboratory (4)
Lec-4, lab-2, field trips
Complete coverage of hand tools, FARs, aerodynamics, electrical systems, overhaul techniques of powerplants to F.A.A. requirements, hydraulics, sheet metal, and rigging and assembly, woodworking and finishing, and weight and balance

AIRC 110A. Introduction to Aviation (2)
Lec-3, field trips
Intended to be taken with AIRC 110B
A broad exposure to the extensive field of aviation. The history and present wide scope of aviation is presented and related to the effects on our everyday lives. A better understanding of aviation and aerospace science is developed and will serve students in adapting to and shaping a better tomorrow. Airplane systems, aerodynamics, careers, and the future of aviation. CSU

AIRC 110B. Flight Science (3)
Lec-3, field trips
Designed to achieve the equivalent of the F.A.A. Private Pilot Ground School. This class will enable the student to take the F.A.A. Private Pilot written examination. Flight instruction is not intended as part of this course. Such training may be obtained at F.A.A. approved flight schools at nearby airports. Aviation weather flight computers, navigation, radio navigation, air-traffic control, Federal Aviation Regulations, weight and balance, use of the Airman’s Information Manual and cross-country flight planning. CSU

AIRC 113. Avionics Communication and Navigation Systems (7)
Lec-5, lab-6, field trips
A study of large aircraft communications and navigation systems: air-to-ground and closed circuit communications; navigation systems providing guidance information and data for automated steering. Analysis of systems operation, fundamental troubleshooting and maintenance techniques as applied to large jet aircraft. CSU

AIRC 115. Aircraft Material Process (1)
Lec-2, field trips
Prereq.: AIRC 101 and 102. Completion of or concurrent enrollment in AIRC 106, 107 and 108. Familiarization with most recent industry testing requirements for technicians in maintaining F.A.A. airworthiness standards. CSU

AIRC 116. Aircraft Material Process (1)
Lec-2, field trips
Prereq.: AIRC 101 and 102. Completion of or concurrent enrollment in AIRC 103, 104 and 105. Familiarization with the most recent industry testing requirements for technicians in maintaining F.A.A. airworthiness standards. CSU

AIRC 120A-120B. Aircraft Maintenance Work Experience (4)
Conf-1, work-15
Prereq.: Approval of AIRC Work Experience Coordinator
Supervised off-campus paid employment in the student’s major field, either aircraft maintenance or aeronautics. CSU

LBCS 96D. Labor Relations in Aircraft Maintenance (3)
Lec-3, field trips
P/NP available
Study of labor relations in various industries, including their history, present status, and current issues. Includes ownership patterns, workplace structure, the changing workforce, management philosophies, unionization, workers’ rights, and current concerns. Labor relations as they affect the economy, society, and culture. CSU
Formerly LABR 96D.
Announcement of Courses
Credit, Degree Applicable Courses:
AM C 11A-11B. American Civilization (3-3)
Lec-3
(AM C 11A IS NOT PREREQUISITE TO 11B)
Lectures and discussions exploring the principal historical, literary, artistic, and social movements in America; illustrated with slides, recordings, and films. CSU/UC

AMS 5. Comics, Power and Society (3)
Lec-3, field trips P/NP available
An introductory social science course using graphic literature, comic books and related media illustrating central social science concepts. The course examines power, powerlessness, and superpower. The history, content and impact of comic books, editorial cartoons, and animation on American society are examined as artistic forms of expression and as representations of social and political issues. CSU/UC

Anthropology
Announcement of Courses
Credit, Degree Applicable Courses:
(For the purposes of satisfying graduation requirements at College of Letters and Science of the University of California, Berkeley, and San Francisco State University, ANTH 1, offered by the Biology Department, is regarded as either a natural science or a behavioral science course, but not both. All other anthropology courses are behavioral science courses.)

ANTH 1. Biological Anthropology (3)
Lec-3 P/NP available
The biological nature of humans and the changes that have occurred from prehistoric times to the present. The place of humans in nature, vertebrate and primate evolution, fossil evidence for human antiquity, individual and population genetics, mechanisms of evolution, and human variation. CSU/UC

ANTH 2. Archaeology and Prehistory (3)
P/NP available
Survey of the contemporary archaeological methods of excavation, analysis and interpretation; focus on the various theoretical approaches used to explain past human behavior; thematic discussion of the major events in the history of humankind from our earliest origins to the appearance of agriculture and civilization. CSU/UC

ANTH 3. Introduction to Social and Cultural Anthropology (3)
P/NP available
Not open to students who have completed ANTH 3AC.
The structure and dynamics of cultures as seen in their religions, marriage practices, gender roles, kinship, social classes, languages, laws and political organization. Examples taken from tribal, peasant, and urban situations in many areas of the world. CSU/UC

ANTH 3AC. Introduction to Cultural Anthropology: Focus on American Cultures (3)
P/NP available
Not open to students who have completed ANTH 3.
Introduces basic concepts of cultural anthropology through the study of cultures from at least three of the following groups: African American, Asian/Pacific Islander, Chicano/Latino, Native American, and European American (as per the requirements of the UC American Cultures Program). Ethnography, history, literature, films and music are integrated in an interdisciplinary approach to cultural studies. CSU/UC

ANTH 4. Introduction to Linguistic Anthropology (3)
P/NP available
The Study of Language: its general nature, its cognitive, biological, and social bases. Languages as they reflect the separate cultural realities of different societies. CSU/UC

ANTH 5. Archaeology of Ancient Civilizations (3)
P/NP available
An archaeological examination of the origin, cultural evolution, and collapse of the world’s ancient civilizations. This survey will focus on the civilizations of Mesopotamia, Egypt, Africa, Indus and Ganges Tiger River Valleys, China, Japan, Southeast Asia, Greece, Rome, Mesoamerica, and the Andes. CSU/UC

ANTH 8. Visions of the Sacred (3)
P/NP available
A cross-cultural exploration of supernatural belief systems focusing on non-literate, tribal, and ethnic cultures; the history and methods of the anthropology of religion; the dynamics of myth, magic, totem, taboo, cults, and sects. CSU/UC

ANTH 11. Latin American Cultures and Societies (3)
P/NP available
Comprehensive and critical analysis of the cultures and traditions of the peoples of Latin America. Critical in-depth study of contemporary society and political systems, inter-ethnic relations, traditional medical and healing methodologies, religion and sorcery. Analysis of the development of Latin American cultures and the impact of civilization on its peoples. Emphasis on the way of life in Latin American cities, barrios, and villages. CSU/UC

ANTH 12. North American Indian Cultures (3)
P/NP available
The native people of North America are described in terms of pre-contact adaptation to the natural environment. Spiritual knowledge, family life, native medicine and native languages are studied in the context of traditional and contemporary cultures. Issues of political power, sovereignty and identity are explored using Native guest speakers and Native literature. CSU/UC
(For ethnology of the North American Indian also see HIST 15A-15B.)

ANTH 15. Philippine Culture and Society (3)
P/NP available
The development of Philippine culture and the impact of Western civilization on the people; emphasis on the ways of life in Philippine cities and barrios. Tribal cultures. CSU/UC
**Apprenticeship**

Office: Evans  
Phone Number: (415) 550-4453  
Web Site: www.ccsf.edu/Campuses/Evans/Apprenticeship

**Announcement of Curricula**

**General Information**

The City College of San Francisco in cooperation with the California Division of Apprenticeship Standards and local joint apprenticeship Committees offers “related training” apprenticeship programs in designated trades or occupations. Apprenticeship on the job training is not offered by the College. Most apprenticeship programs are three to five years in length, similar to a four year bachelor’s degree program. Persons interested in seeking apprentice status and enrollment in apprenticeship “related training” classes listed in this catalog should contact the California Department of Industrial Relations, Division of Apprenticeship Standards or the local sponsoring joint apprenticeship committee.

For further information, please call the CCSF Apprenticeship Program at (415) 550-4453.

**Learning Outcomes**

Apprenticeship is a work force training concept, which is designed to prepare individuals, generally a high school graduate, and produce highly qualified and well trained workers who have solid knowledge as well as specific, technical job skills for occupations in the skilled trades and crafts.

Upon completion of an apprenticeship program, the State of California Department of Industrial Relations California Apprenticeship Council awards a Certificate of Completion of Apprenticeship in the trade.

**Course** | **Occupation** | **Prog. Yrs.** | **Class Hrs.**  
--- | --- | --- | ---  
APPR 9710 | Meat Cutting Appr | 1 | 144  
APPR 9713 | Plastering Appr | 4 | 576  
APPR 9714 | Plumbing Appr | 5 | 1080–1296  
APPR 9715 | Refrig/Air Con Appr | 5 | 1080–1296  
APPR 9721 | Steam Fitting Appr | 5 | 1080–1296  
APPR 9716 | Roofing/Waterproofing Appr | 3.5 | 378  
APPR 9720 | Stnry Engin Appr | 4 | 670–864

**Announcement of Courses**

**Credit, Degree Applicable Courses:**  
Lec/lab-6, field trips  
**Prerequisite:** A STATE OF CALIF. INDENTURED APPRENTICE  
Study and practices in automotive body and fender repair and refinishing as related training for body/fender apprentices. Instruction includes automotive spray painting, welding, detailing, customizing, paints, tools, equipment, welding, preparation of surfaces, suspension systems, frame straightening, body filler materials, alignment, adjusting, and fitting panels, fenders, doors, hoods and lids, glass service and replacement, and estimating cost and work time for repair and refinishing of collision and paint damage. CSU

**Noncredit Courses:**  
APPR 9710. Meat Cutting Apprenticeship (72 hrs)  
Training required for entry level employment as a journey person in the meat cutting trade. Includes: history, knives, tools equipment, sanitation, mathematics, weights, measures, USDA grades, breakdown of beef, veal, pork, lamb, variety meats, poultry, fish, sausage making, storage and merchandising.

APPR 9713. Plastering Apprenticeship (72 hrs)  
The practice in the trade of plastering as required by the apprenticeship program established by the local joint apprenticeship committee and approved by the Division of Apprenticeship Standards Department of Industrial Relations, State of California. Related instruction includes: safety, mathematics, hand tools, equipment, materials, mixing, applying plaster, blueprint reading, bases, fireproofing, problems and repairs, exterior insulation finish systems (EIFS) and finishes.

APPR 9714. Plumbing Apprenticeship (108–162 hrs)  
The practice and study of skills and knowledge required for entry level employment as a journeyperson in the plumbing industry. Instruction includes occupational hazards, safety, first aid, CPR, blueprint reading, use of basic drawings, common cutting and welding practices, gas and arc welding, soldering, brazing, residential plumbing repairs and installations, troubleshooting residential plumbing problems and recommended industrial practices.

APPR 9715. Refrigeration/Air Conditioning Apprenticeship (108–162 hrs)  
Preparation for entry-level employment in refrigeration and air conditioning. The performance skills are designated in the program standards established by the joint apprenticeship committee and
approved by the Division of Apprenticeship Standards, Department of Industrial Relations, State of California.

APPR 9716. Roofing/Waterproofing Apprenticeship (54 hrs)
Apprentices will apply a variety of materials including hot and cold applied built-up roofing and waterproofing, asphalt shingles, roofing such as tile and single ply roofing materials including EPDM, PVC, Hypalon and Modified Bitumen.

APPR 9720. Stationary Engineering Apprenticeship (108 hrs)
Training required for employment as a journeyperson in the stationary engineer trade. Includes safety, trade practices, gas and arc welding, first aid, CPR, fundamentals of conditioning air, heat transfer, air conditioning systems, plans, hydraulics, pneumatics, buildings, machines, electrical and sheet metal, boilers, mathematics grade, calculations, hand tools, power tools and equipment.

APPR 9721. Steamfitting Apprenticeship (108-162 hrs)
Preparation for entry-level employment as a journeyperson in steamfitting. Performance skills are designated in the program standards established by the joint apprenticeship committee and approved by the Division of Apprenticeship Standards, Department of Industrial Relations, State of California.

**Journeyman**

**Credit, Degree Applicable Courses:**

**Stationary Engineers**

JRNY 106. High Rise Fire Safety Director (1.5)
Lec-3 (9 wks) P/NP available
ADVISE: ESL 150 and HIGH SCHOOL DIPLOMA OR GED
Provides basic knowledge and skills in the preparation of facility emergency plans; fire prevention and protection; life safety systems; evacuation and relocation procedures; earthquake preparedness; management of various emergencies and coordinating with emergency responders. CSU
JRNY 106 = F SC 106

**Noncredit Courses:**

**Stationary Engineers**

JRNY 9701. Air Conditioning - Refrigeration I (54 hrs)
Introduction to the craft of air conditioning and refrigeration maintenance as practiced by journeypersons in the trade. Hands-on use of electrical instruments, hand, heat, and power tools.

JRNY 9702. Air Conditioning - Refrigeration II (54 hrs)
Prereq.: JRNY 9701
Continuation of the craft of refrigeration and air conditioning maintenance as practiced by journeypersons in the trade. Hands-on use of electrical instruments, hand, heat, and power tools.

JRNY 9704. Backflow Prevention and Cross-Connection Control (54 hrs)
Introduction to the theory, fundamentals of operation, test equipment used and techniques recommended for testing and maintenance of backflow prevention assemblies.

JRNY 9705. Boiler Operation and Maintenance (54 hrs)
An intensive course designed to introduce the basic properties of physics relative to the operation of steam and hot water boilers. Basic theory review and discussion of maintenance troubleshooting skills. Scheduled to various central plants.

JRNY 9706. Blueprint Reading (54 hrs)
Nearly every aspect of the Stationary Engineer Trade has some type of drawing or blueprint associated with it. Gaining a basic understanding of how these drawings relate the process of design and construction to the finished product will enhance the students on the job performance and facilitate a better understanding of the equipment they work on.

JRNY 9707. Computers I (54 hrs)
Students are introduced to the tools and functions of the most recent versions of Windows Operating Systems. Students are taught how to organize and navigate the Windows platform for an efficient application of the system. They will be taught application of word processing software program found in the Microsoft Office Suite. This includes the function of toolbars and keyboard as well as application of word processing for business purposes.

JRNY 9708. Computers II (54 hrs)
Prereq.: JRNY 9707
Students will be taught the software programs found in the Microsoft Office Suite as they relate to building systems. They will learn how to collect and enter building data into Microsoft Access. They will learn how to create queries and macro functions, developing charts and graphs on Microsoft Excel and to create a PowerPoint presentation.

JRNY 9709. CFC Training/Testing (8 hrs)
Stationary Engineers today are in a position of increasing responsibility, both to implement procedures resulting from refrigerant regulations and to provide answers to customers’ questions and technical problems. The scope of this course is limited to information and service practices needed to recover, recycle and/or reclaim refrigerants and not intended to teach air conditioning/refrigeration system installation, troubleshooting or repair. Prepares student for the E.P.A. exam.

JRNY 9710. Controls I (54 hrs)
Designed to develop an understanding and recognition of various types of commercial and industrial control systems while achieving the skills needed to analyze wiring and ladder diagrams and concepts. This course will assist the development of the Engineer’s skills necessary to effectively troubleshoot electrical and pneumatic problems commonly found in facilities.

JRNY 9711. Controls II (54 hrs)
Prereq.: JRNY 9710
Continuation of JRNY 9710. This course will broaden the Engineer’s capability to understand and recognize various types of commercial and industrial control systems as they continue to apply the skills needed to analyze wiring and ladder diagrams and concepts. Development of the Engineer’s skills necessary to effectively troubleshoot electrical and pneumatic problems commonly found in facilities.

JRNY 9712. Direct Digital Controls (54 hrs)
This course will provide stationary engineers with an introduction to the new field of digital electronics for controlling the functions of a buildings HVAC systems, electronic access and fire alarm systems. Hands-on diagnostics of systems.

JRNY 9713. Electricity I (54 hrs)
Designed to develop an understanding and recognition of various types of electrical circuits, diagrams and concepts while developing a broad scope of the skills needed for troubleshooting electrical problems. Electricity will be studied with an emphasis on control theory and application.
JRNY 9714. Electricity II (54 hrs)
Prereq.: JRNY 9713
Continuation of developing an understanding and recognition of various types of electrical circuits, diagrams and concepts while developing a broad scope of the skills needed for troubleshooting electrical problems. Electricity will be studied with an emphasis on control theory and application.

JRNY 9715. Hazardous Materials (56 hrs)
In-depth instruction in a variety of "Hazmat" related topics, including: industrial hygiene, toxicology, use of respirators, radiation, emergency entry/egress procedures, and decontamination to name a few. A combination of classroom instruction and simulated "hands-on" exercises to familiarize Engineers with all aspects of proper handling of hazardous materials.

JRNY 9716. Hazardous Materials Refresher (8 hrs)
Provides Stationary Engineers with updates in all aspects of the 40-hour training curriculum. Provided on an annual basis, the course serves as a forum to review basic competencies and allows for any new or changes in regulations, equipment and procedures to be addressed.

JRNY 9719. HVAC Testing and Balancing (54 hrs)
This course introduces the Stationary Engineer to the effective use of instruments, reports and procedures for test and balance of HVAC systems. Both the air-side and hydronic-side of the system is studied. A sample test and balance report will be prepared by students in this course.

JRNY 9720. Indoor Air Quality (75 hrs)
Designed to assist the journey-level or advanced apprentice stationary engineer to prevent and mitigate (relieve or alleviate) indoor air quality problems. Today's facilities are operated using complex mechanical systems that interact to produce a comfortable and productive work environment. Through the operation and maintenance of these systems an related training, stationary engineers acquire a broad base of practical and theoretical knowledge that leads to complete understanding of system operations.

JRNY 9721. Energy Conservation (75 hrs)
This course will be presented in a step-by-step method to allow engineers to become part of the learning process as a progression of on-the-job energy conservation activities are incorporated into this course.

JRNY 9722. Pneumatic Controls (12 hrs)
This course is designed as a lecture/demonstration session with the opportunity for engineers to practice the use of pneumatic controls on two training units. These training units are models of the types of HVAC control systems a Stationary Engineer would expect to see in the trade.

JRNY 9725. Supervision (54 hrs)
This series of comprehensive seminars is designed for Chief Engineers and those aspiring to be Chief Engineers. Topics cover the organizational, communication and technical skills critical to achieving success in this capacity.

JRNY 9728. Technical Math I (54 hrs)
Basic arithmetic, measurement and approximate numbers, operations with signed numbers, introduction to algebra, interpretation of graphs, and an introduction to plane and solid geometry.

JRNY 9729. Technical Math II (54 hrs)
Prereq.: JRNY 9728
Introduction to trigonometry, vectors (resolution and addition), exponents and roots, radicals and logarithms, and an introduction to mechanics (force, work, energy, power).

JRNY 9734. Welding (54 hrs)
Theory, fundamentals of operation, equipment used and techniques recommended for oxygen/acetlylene (OAW) and shielded metal arc welding (SMAW). General shop safety practices. Print reading and the interpretation of the American Welding Society welding symbols.

JRNY 9735. Locksmithing (54 hrs)
This course will provide Stationary Engineers with the basic locksmithing skills and confidence to undertake and perform duties as a locksmith. These skills will equip them with a foundation from which to expand their knowledge in this field, permitting them to save their employer time and money.

JRNY 9742. Electricity for the Stationary Engineer (54 hrs)
Students are taught topics in electricity as it is used in a modern facility. Students are introduced to electrical theory, terminology, safety, tools, and circuitry. Course will cover electrical distribution systems in a commercial building from utility service to loads on branch circuits, motors and motor controls.

JRNY 9743. Building Systems (54 hrs)
Students are introduced to the basic operations and functions of the mechanical and electrical systems, which are commonly found in a commercial building. Students are prepared for further, more intensive, study into the more particular trade skills required to operate a building as a professional Stationary Engineer.

JRNY 9744. Critical Facilities Fundamentals (54 hrs)
Students are introduced to operations in technologically advanced data, telecommunication and other critical centers. Students learn to operate and maintain electrical distribution systems, generators, uninterruptible power supply (UPS), HVAC in raised floor environments, building automation systems, energy management and specialized fire/life safety systems.

**Plumbing**

**Noncredit Courses:**

JRNY 9736. Backflow Valve Repair (54 hrs)
A study in all areas of training and instruction in the field of backflow, cross connection, backflow prevention, backflow testing and backflow repair.

JRNY 9737. Welding/Plumbing and Pipefitting (108 hrs)
A study in all areas of arc welding and cutting for journeyperson training and refresher course.

JRNY 9738. Basic Trade Related Electricity (54 hrs)
A study in all areas of basic trade related electricity for journeyperson training and refresher course.

JRNY 9739. Backflow Certification (54 hrs)
A study in all areas of training and instruction in the field of backflow, cross connection, backflow prevention, backflow testing and backflow certification.
Announcement of Curricula

Learning Outcomes

Architecture and Interior Architecture students will develop an understanding of design as a model for creative inquiry, using necessary resources from history, technology, the humanities and contemporary culture issues in response to the fundamental principle that design’s relevance is based on its ability to engage society’s concerns.

Construction Management students will learn the basic effective management techniques related to the planning, design, and construction of a project from inception to completion for the purpose of controlling time, cost and quality.

The requirements for an Associates degree from CCSF and requirements for transferring to a baccalaureate program in another college or university are different. Students who are seeking to attain an Associates of Science in Architecture, Interior Design or Construction Management should follow the major requirements listed below. Students who are seeking to transfer to another university or college to attain a 4 or 5 year degree are strongly encouraged to consult with an advisor within your program of study.

Laptop Recommendation: The Department of Architecture strongly recommends that all students planning to transfer to a 4 or 5 year university program in Architecture or Interior Design purchase a portable computer for use in certain design and graphic courses. The use of computers in most architecture and design schools has become an essential tool in lab-based design education and would benefit your education immensely. Please inquire with the department what kind of laptop computer would be helpful and when you could consider obtaining it.

Architecture Major (AS)

Graduates who have completed the Curriculum in Architecture, a two year foundation study, are fully prepared to transfer to a baccalaureate program in order to pursue a professional or non-professional degree. The program will prepare them in areas of design, technology, digital skills, drawing, delineation and rendering, structures and history. All of these areas are fundamental components of architectural education and will serve all graduates of this program well in their further studies.

Graduates who choose to enter directly into the marketplace would be qualified in various capacities in the fields of architecture, construction industry and related fields. Positions such as architectural technician, construction detailer, building materials salesperson or manufacturer's representative are examples of possible employment a graduate may pursue with this two-year degree.

Courses Required for the Major in Architecture

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester (fall)</strong></td>
<td></td>
</tr>
<tr>
<td>ARCH 20 Orthographic Projection</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 29A Freehand Drawing</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 48 Intro to Architecture, Construction &amp; Design</td>
<td>1</td>
</tr>
<tr>
<td>PHYC 10 Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 55 Geometry</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td><strong>Second Semester (spring)</strong></td>
<td></td>
</tr>
<tr>
<td>ARCH 22A Delineation &amp; Rendering</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 101 Architecture Design Studio I</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td><strong>Third Semester (fall)</strong></td>
<td></td>
</tr>
<tr>
<td>ARCH 120 Fundamentals of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 50 Construction Drawings</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 102 Architecture Design Studio II</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Semester (spring)</strong></td>
<td></td>
</tr>
<tr>
<td>ARCH 27 (spring only) Fundamentals of Building Structures</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 31B (spring only) History of Architecture</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 52A Architectural CADD or BIM 120 Revit Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 160 (spring only) Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>41</td>
</tr>
</tbody>
</table>

Interior Design Major (AS)

The curriculum in Interior Design, a two-year interdepartmental course of study, has strong emphasis on both Architecture and Art. Enrollment is open to all interested students. However, students are required to satisfy prerequisites before they are admitted to certain courses.

The course of study includes instruction in the following: architecture—orthographic projection, descriptive geometry, perspective, and shades and shadows; two-dimensional basic design; delineation and rendering; materials of construction; freehand drawing; professional practice/interior design; legal aspects of contracting; digital skills in drafting and drawing; art history; art—basic design; basic drawing; structural analysis and design; art orientation; and graphic design.

The course of study is designed so that students may satisfy the requirements for graduation from the College. Students who satisfy these requirements and complete the curriculum with an average grade of C or higher receive the Associate in Science degree in Interior Design.

Entry positions for which graduates who have received the degree of Associate in Science in Interior Design may qualify for employment positions that may include those of drafter/designer, designer, salesperson, interior designer, and assistant in coordination of colors, fabric, furniture, lighting systems, and exhibits.
Courses Required for the Major in Interior Design

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester (fall)</td>
<td></td>
</tr>
<tr>
<td>ARCH 48 Intro to Architecture, Construction, &amp; Design</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 20 Orthographic Projection</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 29A Freehand Drawing</td>
<td>1</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester (spring)</td>
<td></td>
</tr>
<tr>
<td>ARCH 29B. Freehand Drawing</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 22A Delineation &amp; Rendering</td>
<td>3</td>
</tr>
<tr>
<td>DSGN 150 Color in Design</td>
<td>3</td>
</tr>
<tr>
<td>or ART 126 Color</td>
<td></td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester (fall)</td>
<td></td>
</tr>
<tr>
<td>ARCH 101 Architecture Design Studio I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 52A Architectural CADD</td>
<td>3</td>
</tr>
<tr>
<td>or BIM 120 Revit Architecture I</td>
<td></td>
</tr>
<tr>
<td>ART 170A Beginning Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>INTD 124 Interior Bldg Materials &amp; Systems</td>
<td>3</td>
</tr>
<tr>
<td>or ARCH 120 Fundamentals of Building Construction</td>
<td></td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester (spring)</td>
<td></td>
</tr>
<tr>
<td>INTD 138 Global History of Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 30A Interior Design Studio</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 160 (spring only) Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>33</td>
</tr>
</tbody>
</table>

Construction Management Major (AS)

The Associate in Science Degree Program prepares students to enter the Construction Management profession in responsible positions. This program is comprehensive and provides students with the practical knowledge and skills required to be effective in professional environment, such as:

- Estimating and construction costing.
- Scheduling techniques, including CPM methodology.
- Quality control and quality assurance techniques.
- Project control methodologies.
- The legal environment of the design and construction process.
- Building Codes, Zoning Ordinances and other regulations.
- Written and verbal communications.
- Technical mathematics.
- Computer skills.

Upon successful completion of the curriculum students receive the Associate in Science degree in Construction Management. The California State Contractors License Board gives students who graduate with this degree credit for one and a half of the four years of practical experience required of applicants for the State building contractor's license. Upon graduation from the Construction Management Program, students are qualified to enter the profession through a wide variety of employers such as Construction Managers, General Contractors, Sub-Contractors, as well as Architectural and Engineering offices. Opportunities upon entry into the Profession are varied and include: estimating and cost control, scheduling and planning, document control, quality assurance and inspection.

Courses Required for the Major in Construction Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester (Fall)</td>
<td></td>
</tr>
<tr>
<td>CM 100 Fundamentals of Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 120 Fundamentals of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>Additional Graduation Requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester (Spring)</td>
<td></td>
</tr>
<tr>
<td>CM 110 Construction Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 127 Fundamentals of Building Structures</td>
<td>3</td>
</tr>
<tr>
<td>CM 248 Construction Project Administration</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 6 Workplace Communication</td>
<td>3</td>
</tr>
<tr>
<td>or SUPV 234 Communication for Bus Management</td>
<td></td>
</tr>
<tr>
<td>or BSEN 74 Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>Additional Graduation Requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester (Fall)</td>
<td></td>
</tr>
<tr>
<td>CM 240 Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 240 Fundamentals of the International Building Code</td>
<td>3</td>
</tr>
<tr>
<td>BIM 120 Revit Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>Additional Graduation Requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester (Spring)</td>
<td></td>
</tr>
<tr>
<td>CM 244 Construction Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 160 Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>LERN 62 Successful Job Search Techniques</td>
<td>3</td>
</tr>
<tr>
<td>(Required for placement in summer internship position)</td>
<td>1</td>
</tr>
<tr>
<td>Additional Graduation Requirements</td>
<td></td>
</tr>
<tr>
<td>Fifth Semester (Summer)</td>
<td></td>
</tr>
<tr>
<td>LERN 63 Career Counseling for Work Experience</td>
<td></td>
</tr>
<tr>
<td>(Concurrent work in internship position required)</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>38</td>
</tr>
</tbody>
</table>

Construction Management: Core Skills Certificate

The Certificate of Accomplishment in Construction Management: Core Skills is a course of study focused on the core technical and management skills required in the field of Construction Management. This certificate is designed to meet the needs of students who want to obtain entry-level positions within the Construction Management profession. It also provides students who are currently employed in the construction industry in trades positions the opportunity for entry and/or advancement in management positions. All courses required for the Certificate Program are also required for the Associates in Science Degree Program making it easier for students to continue their studies to enhance their opportunities for career advancement.

Students may receive a Certificate of Accomplishment in Construction Management: Core Skills by completing the courses required by the certificate program with a final grade of C or higher. Pass/No Pass grades will not be accepted towards completion of a certificate program.

Courses Required for the Certificate of Accomplishment in Construction Management: Core Skills

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM 100 Fundamentals of Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CM 110 Construction Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CM 240 Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CM 244 Construction Scheduling</td>
<td>3</td>
</tr>
</tbody>
</table>
CM 248 Construction Project Administration ............ 3  
ARCH 120 Fundamentals of Building Construction ........ 3  
Total Units .............................................. 18

**Construction Management: Advanced Skills Certificate**

The Certificate of Achievement in Construction Management: Advanced Skills is a course of study that includes courses which focus on the technical and management skills required in the field of Construction Management as well as courses which provide knowledge in the technical aspects of construction as well as in general business. This certificate is designed to meet the needs of students who are returning to college after completing a degree in another field who seek to enter into the profession of Construction Management. It also provides students who are currently employed in the construction management industry in entry-level positions the opportunity for advancement by enhancing their knowledge. All courses required for the Certificate Program are also required for the Associated in Science Degree Program making it easier for students to continue their studies to enhance their opportunities for career advancement.

Students may receive a Certificate of Achievement in Construction Management: Advanced Skills by completing the courses required by the certificate program with a final grade of C or higher. Pass/No Pass grades will not be accepted towards completion of a certificate program.

**Courses Required for the Certificate of Achievement in Construction Management: Advanced Skills**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM 100 Fundamentals of Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CM 110 Construction Graphics ..................</td>
<td>3</td>
</tr>
<tr>
<td>CM 240 Construction Cost Estimating ..........</td>
<td>3</td>
</tr>
<tr>
<td>CM 244 Construction Scheduling ...............</td>
<td>3</td>
</tr>
<tr>
<td>CM 248 Construction Project Administration</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 120 Fundamentals of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>Electives: Students must complete 12 units from the following elective courses</td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Units</td>
</tr>
<tr>
<td>ARCH 27 Fundamentals of Building Structures</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 160 Professional Practice ................</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 240 Fundamentals of the International Building Code</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Applications for Business</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 6 Workplace Communication or SUPV 234 Communication for Bus Management or BSEN 74 Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>BIM 120 Revit Architecture I ..................</td>
<td>3</td>
</tr>
<tr>
<td>Total .............................................. 30</td>
<td></td>
</tr>
</tbody>
</table>

**Collaborative Design**

The 17-unit certificate program in Collaborative Design provides students with a strong foundation in multidisciplinary approaches to design and collaboration.

* See Interdisciplinary Studies section of the Catalog.

**Announcement of Courses**

### Architecture

**Credit, Degree Applicable Courses:**

ARCH 18B. Residential Interior Design (3)  
Lec-3, field trips  
A study of the selection and use of fiber and decorative fabrics for interior design purposes; space design, floor plans, elevations and renderings; works of past and present architects and designers; lighting and color theory, color schemes and interaction of color, and color predictions for interior design. In-class work in effectively combining fabrics, wall coverings, floor treatments, pattern and color mixing. Study of presentations and portfolios for the student and the professional. Emphasis is on creativity in total interior design coordination and problem-solving. CSU

ARCH 20. Orthographic Projection, Descriptive Geometry, Perspective, and Shades and Shadows (3)  
Lec-2, lab-4, field trips  
Basic techniques used in graphic communication; fundamental principles of orthographic projection and isometric drawing; theory and methods of architectural perspective, and shades and shadows. CSU

ARCH 22A. Delineation and Rendering (3)  
Lec-2, lab-4, field trips  
Prereq.: ARCH 20; Completion/concurrent enrollment in ARCH 29A  
Basic drawing techniques in graphic communication. Two and three-dimensional representations with various media expressing architectural ideas and concepts. CSU/UC

ARCH 22B. Delineation and Rendering (3)  
Lec-2, lab-4, field trips  
Prereq.: ARCH 22A  
A continuation of ARCH 22A, with selected problems. CSU

ARCH 29A. Freehand Drawing (1)  
Lec-1, lab-1, field trips  
Development of skill in freehand drawing methods of visual communication, and in seeing and expressing form, value, and texture; development of ability to express original conceptions. CSU/UC

ARCH 29B. Freehand Drawing (1)  
Lec-1, lab-1, field trips  
Prereq.: ARCH 29A  
Further development of skill in freehand drawing methods of visual communication. CSU/UC

ARCH 30A. Professional Practice/Interior Design (3)  
Lec-2, lab-4, field trips  
Prereq.: ARCH 29A or ART 125A and 130A; ARCH 22A  
Procedure in architectural interior design; measurement; graphic presentation methods; programming and outline specifications; relation of interior spaces to structure; electrical, and mechanical systems; spatial requirements for human activities; and selection of furnishings. CSU

ARCH 30B. Professional Practice/Interior Design (3)  
Lec-2, lab-4, field trips  
Prereq.: ARCH 30A  
Group space analysis and arrangement; relation of interior activity functions to building systems; circulation; related graphics and signing; illumination; color and material sample kits. CSU
ARCH 31A. History of Architecture (3)
Lec-3
A survey of the history of architecture of the western world from ancient Egypt through the end of the Middle Ages. CSU/UC

ARCH 31B. History of Architecture (3)
Lec-3
A survey of the history of architecture of the western world from the early Renaissance through the twentieth century. CSU/UC

ARCH 32. Bay Region Architectural History (3)
Lec-3
P/NP available
A survey of Bay Region building modes from pre-Hispanic days to the present; the inception and growth of towns and cities, and the influences that have shaped their urban forms and their architecture, with an introduction to contributing architects and planners, reflecting the growth and significance of their professions in the late nineteenth and twentieth centuries. CSU/UC

ARCH 34. History of Modern Architecture (3)
Lec-3
A survey of architectural history of the nineteenth and twentieth centuries in Europe, Asia, and America from the time of the Industrial Revolution to the present. CSU/UC

ARCH 48. Introduction to Architecture, Construction and Design Related Professions (1)
Lec-2, field trips
Overview of professional and technical careers in architecture, interior design, landscape architecture, construction management, related consulting engineering professions and building construction professions. Analysis of the design process and conditions affecting design and building. CSU/UC

ARCH 50. Construction Drawings (3)
Lec-2, lab-4, field trips
P/NP available
Prereq.: ARCH 20 or ET 104 or 1 yr of HS drafting
Study of construction documents with an emphasis on light wood frame construction and ecological sustainability. Building and framing systems, detailing, site issues, codes and regulations, research and professional publications in architecture and construction disciplines through creation of a simple set of construction documents. CSU

ARCH 52A. Architectural CADD (3)
Lec-2, lab-4, field trips
P/NP available
Prereq.: ARCH 20
Repeat: max. 6 units
First half of ARCH 52
Basic computer-aided design and drafting using CADD software as applied in the design professions. Using a PC and current AutoCAD software to develop basic drawing and drafting skills with a special emphasis on architecture. CSU

ARCH 99. Materials and Fabrication Shop (1)
Lab-3
P/NP available
Repeat: max. 4 units
A project-oriented, hands-on course to introduce students to the practices and methodologies used in fabricating architectural models or execution of three-dimensional designs using wood, metals and plastics. Students learn shop and cleanup procedures, safety procedures, and proper use of equipment and tools. CSU

ARCH 101. Architectural Design I (4)
Lec-2, lab-8, field trips
Introduction to architectural concepts and principles through 2-D and 3-D design projects. Focus is on issues, requirements and objectives related to visual perception of form and space, architectural meaning, spatial experiences, and the human condition. CSU/UC

ARCH 102. Architecture Design Studio II (4)
Lec-2, lab-8, field trips
P/NP Available
Prereq.: ARCH 101
A second design studio course in a sequence that expands upon fundamental architectural principles and concepts within Architecture and Design. Students explore topics related to design process, site, program, place, order, space within simple architectural problems. CSU/UC

ARCH 103. Architecture Design Studio III (4)
Lec-2, lab-8, field trips
Prereq.: ARCH 102
A third semester design studio course in a sequence that expands upon fundamental architectural principles and concepts within Architecture and Design. Students focus on urban analysis and design process, program, site and place in response to increasingly complex project requirements. CSU/UC

ARCH 120. Fundamentals of Building Construction (3)
Lec-3, field trips
P/NP Available
Comprehensive survey of all major building materials and systems of assembly in architecture and construction. Topics include wood, masonry, concrete, steel, glass, foundations, roofing, walls, frames, doors and windows as well as considerations of sustainability in the construction process. CSU

ARCH 120A. Concrete in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips
P/NP Available
Repeat: max. 1 unit
Introduction to the materials, tools and equipment used for concrete work in residential construction. Hands-on class on how to mix, form, pour and work with concrete, with instruction in the safe usage of hand and power tools. CSU

ARCH 120B. Rough Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips
P/NP Available
Repeat: max. 1 unit
The basics of wood framing in residential construction for novices and trades people seeking cross over skills. A hands-on class that will demonstrate proper handling of tools and the appropriate use of fasteners in rough carpentry and the construction of small projects. CSU

ARCH 120C. Finish Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips
P/NP Available
Repeat: max. 1 unit
Basic knowledge and skills in finish carpentry in residential construction. Identification of tools, building materials, and techniques required for finish carpentry. Demonstrate safe construction practices. Several projects requiring the planning and organizing of work, and the use of measuring, hand and power tools. CSU

ARCH 120D. Construction Drawings (3)
Lec-2, lab-4, field trips
P/NP Available
Prereq.: ARCH 20 or ET 104 or 1 yr of HS drafting
Study of construction documents with an emphasis on light wood frame construction and ecological sustainability. Building and framing systems, detailing, site issues, codes and regulations, research and professional publications in architecture and construction disciplines through creation of a simple set of construction documents. CSU

ARCH 121. Fundamentals of Building Construction (3)
Lec-3, field trips
P/NP Available
Comprehensive survey of all major building materials and systems of assembly in architecture and construction. Topics include wood, masonry, concrete, steel, glass, foundations, roofing, walls, frames, doors and windows as well as considerations of sustainability in the construction process. CSU

ARCH 122. Concrete in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips
P/NP Available
Repeat: max. 1 unit
Introduction to the materials, tools and equipment used for concrete work in residential construction. Hands-on class on how to mix, form, pour and work with concrete, with instruction in the safe usage of hand and power tools. CSU

ARCH 123. Rough Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips
P/NP Available
Repeat: max. 1 unit
The basics of wood framing in residential construction for novices and trades people seeking cross over skills. A hands-on class that will demonstrate proper handling of tools and the appropriate use of fasteners in rough carpentry and the construction of small projects. CSU

ARCH 124. Finish Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips
P/NP Available
Repeat: max. 1 unit
Basic knowledge and skills in finish carpentry in residential construction. Identification of tools, building materials, and techniques required for finish carpentry. Demonstrate safe construction practices. Several projects requiring the planning and organizing of work, and the use of measuring, hand and power tools. CSU
ARCH 120D. Masonry and Tile in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips P/NP Available
Repeat: max. 1 unit
The basic skills for applying masonry and tile in residential construction, including practicing proper use of tools, materials, and techniques. Hands-on completion of several projects requiring planning and organizing is expected. CSU
ARCH 120D = CNST 120D

ARCH 120E. Plumbing in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips P/NP Available
Repeat: max. 1 unit
This is a hands-on class on the materials and tools used for installing a plumbing system in residential construction; piping for hot and cold water, waste, vent systems, plumbing fixtures and the completion of one or more small projects. CSU
ARCH 120E = CNST 120E

ARCH 120F. Electrical in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips P/NP Available
Repeat: max. 1 unit
Introduction to the basic skills for electrical work in residential construction, including safety practices. Students will complete several small projects such as the rewiring of outlets, repair and replacement of light fixtures and the identification of circuits and connections found in residential construction. CSU
ARCH 120F = CNST 120F

ARCH 127. Fundamentals of Building Structures (3)
Lec-3, field trips P/NP Available
Awareness of architectural structural concepts; fundamental aspects and principles of basic structural forms, loads and materials. Reveal and discuss the multi-discipline nature of structural systems in the built environment (including sustainability and the environment) within the architectural and construction fields. CSU
Formerly ARCH 27

ARCH 160. Professional Practice (3)
Lec-3
Survey of general office administration: contract documents, agreements, business aspects of construction, lien laws, codes and zoning ordinances, bid forms, safety and health ordinances. A familiarization with architects’ and contractors’ licensing requirements. CSU

ARCH 240. Fundamentals of the International Building Code (3)
Lec-3 P/NP available
A comprehensive introduction to the fundamentals of the International Building Code (IBC) that is adopted and used throughout most jurisdictions of the United States to regulate the use, design, construction, and maintenance of buildings. CSU

ARCH 248. Construction Project Administration (3)
Lec-3 P/NP available
Advise: CM 100
Prereq.: CM 240 or demonstration of CM 240 exit skills
Study of the basic concepts of construction scheduling: scheduling techniques with a focus on Critical Path Methods; CPM schedule planning, updating and analysis. Manual procedures in scheduling are followed by computer applications. CSU

CM 240. Construction Cost Estimating (3)
Lec-3, field trips P/NP available
Prereq.: CM 110 or demonstration of CM 110 exit skills
A study of the fundamental approaches to estimating the cost of building construction projects. Topics discussed include: types of construction estimates; the material takeoff process; the use of computers in estimating; total project estimating including direct costs, indirect costs, contingency and profit. CSU

CM 244. Construction Scheduling (3)
Lec-3, field trips P/NP available
Prereq.: CM 240 or demonstration of CM 240 exit skills
Study of the basic concepts of construction scheduling: scheduling techniques with a focus on Critical Path Methods; CPM schedule planning, scheduling, updating and analysis. Manual procedures in scheduling are followed by computer applications. CSU

CM 100. Fundamentals of Construction Management (3)
Lec-3, field trips P/NP available
Introduction to the basic concepts of construction project management including: the building design and construction process; project participants, their roles and responsibilities. Areas of focus to include the application of the principles of contracts in relation to construction projects, estimating, scheduling and project control. CSU

CM 110. Construction Graphics (3)
Lec-2, lab-4 P/NP available
Introduction to basic graphics, communication skills and knowledge required by the construction management professional, with a focus on the development of freehand drawing techniques. Analysis of drawings in the civil, architectural, structural, mechanical, and electrical fields and their relationship to construction planning and estimating. CSU

CM 1000. Construction Management for Contractors (26 hrs)
Overview of the construction project management considerations in the operation of building contractor businesses. Discussion of business considerations such as insurance, bonds, accounting, risk management
and marketing. Discussion of construction management basics such as estimating, scheduling and project management. Introduction to Building Information Modeling (BIM), Green Building technologies and ethics.

**Interior Design**

**Credit, Degree Applicable Courses:**

**INTD 124. Interior Building Materials and Systems (3)**  
Lec-3, field trips  
P/NP available  
A comprehensive examination of Interior Materials and Construction Systems with a focus on their interface with building systems such as electrical, mechanical, and structural systems. CSU

**INTD 138. Global History of Interior Design (3)**  
Lec-3, field trips  
P/NP available  
The history of Interior Design ranging from ancient times to the 21st Century, including Western, Asian, Middle Eastern, African and Latin American cultures. The course will focus on historical periods and their influences on the design of interior spaces. CSU

**Art**

**Office:** Visual Arts 118  
**Phone Number:** (415) 239-3157  
**Web Site:** www.ccsf.edu/Art

**General Information**

The City College Art Department offers students a comprehensive lower division program in the areas of Art History and Fine Art, revolving around the basic CORE program. The Art Department prepares students for transfer to upper division courses in colleges and universities or for direct entry into art careers. Most of our courses are acceptable for credit at the University of California and California State system.

Students intending to transfer and major in the Fine Arts are advised to enroll in two art history courses, along with general education and studio courses. Students intending to transfer and major in Art History are advised to enroll in one studio course, along with general education and art history courses.

**Announcement of Courses**

Most advanced classes in the Art Department require that prerequisites be completed before taking those classes. Students who have not completed those prerequisites must demonstrate the exit skills required upon completion of the prerequisite(s). (See specific courses for prerequisite requirements.)

Most Art Studio courses listed will require a laboratory fee.

**Art History Courses**

The Art History Curriculum offers a wide selection of courses which apply critical thinking and analytical skills to an understanding of visual arts around the world: (101 through 109), Telecourse 116 and on-line course 118, and Selected Topics Courses (121, 122, 123, and 124) which offer a more in-depth study of art at the Legion of Honor and the De Young Fine Arts Museums of San Francisco. All Art History courses may be taken in any sequence. College-level reading and writing skills are advised.

**Credit, Degree Applicable Courses:**

**ART 101. Western Art History (3)**  
Lec-3, field trips  
Survey of Western Art from 35,000 B.C.E. to 500 C.E.: Paleolithic art through the Early Medieval period. Art will be discussed from critical and historical perspectives, with regard to formal visual elements of style and the social context of the societies, values, and ideas that gave birth to Western art. CSU/UC (C-ID ARTH 110)

**ART 102. Western Art History (3)**  
Lec-3, field trips  
Survey of Western Art from the sixth to the eighteenth centuries: Byzantine and Medieval to the Romantic periods. Art will be discussed from critical and historical perspective, with regard to formal visual elements of style and the social context of the societies, values, and ideas that determined the course of Western art. CSU/UC

**ART 103. History of Modern Art (3)**  
Lec-3, field trips  
The origins and developments of Modern Art in Europe and America from the French Revolution through World War II. Art will be analyzed from both critical and historical perspectives. Formal visual elements of style, social and cultural context, values ideas, and thematic characteristics of modern art will be discussed, analyzed and evaluated. CSU/UC

**ART 104. Asian Art History (3)**  
Lec-3, field trips  
A survey of the artistic heritages of Asia, from Iran in the west to south-eastern regions of Indonesia, spanning five millennia of Asian art history. Art 104 explores the themes and beliefs which give unity to the art of this part of the world, as well as the diverse cultural characteristics which led to the development of national styles. CSU/UC

**ART 105. Ancient Art and Architecture of Latin America (3)**  
Lec-3, field trips  
A survey of the artistic heritage of Pre-Columbian Mexico, Central and South America. Art 105 explores the themes and beliefs which gave unity to the art of this part of the world as well as the diverse cultural characteristics which led to the development of regional styles. CSU/UC

**ART 106. Latin American Art History (3)**  
Lec-3, field trips  
A survey of the artistic heritage of Latin America from the sixteenth century AD to the present. All art will be discussed from a critical and historical perspective, with regard to formal visual elements of style and the societies, values, and ideas that gave birth to Latin American art. CSU/UC

**ART 107. African American Art History (3)**  
Lec-3, field trips  
A survey of the artistic heritage of West African civilizations and of African Americans from the colonial to the present. All art will be
discussed from both a critical and historical perspective, with regard to formal visual elements of style and the societies, values and ideas that gave birth to African American art. CSU/UC

**ART 108. Women through Art History (3)**
Lec-3, field trips
A survey of women in art, investigating their place in society as artists, patrons, and subjects in art. The course will introduce women from both European and non-European cultures, from pre-history to the present. All art will be discussed from both a critical and historical perspective, with regard to social context and formal visual elements. CSU/UC

**ART 109. History of Contemporary Art (3)**
Lec-3, field trips
Contemporary art from 1945 to the present. Students will analyze late modern and postmodern developments in art in relation to their historical contexts. The course will also investigate the unusual challenges contemporary art forms and concepts present to the traditional methods and practices of art history. CSU/UC

**ART 116. Art of the Western World (3)**
Lec-3, field trips
A telecourse introduction to art history from the Classical Greek period to the Modern twentieth century. Art will be discussed in its social context and for formal visual elements. The course introduces the societies, values, and ideas that gave birth to Western art, discusses the changing goals of artists and patrons, traces art’s relation to power, religion, culture, and the art of the past, and suggests how art defines or contradicts its time. Refer to the Telelesson Schedule for viewing dates and times. CSU

**ART 118. American Art (3)**
Lec-3, field trips
The history of American art from colonial times to the present. Painting, sculpture, architecture, and crafts will be examined within their historical, political, and sociocultural background. Students learn to identify works by pivotal artists, recognize techniques and formal visual elements, and critically analyze artwork within its contextual framework. CSU/UC

**ART 121-122-123. Selected Topics in Art (1-3-3)**
Lec-1, 3, 3
Repeat: if no subject repeat
An in-depth investigation of selected topics in art. These courses were developed in conjunction with the permanent and special exhibitions at the Legion of Honor and De Young Memorial Museums of Art. The content of these courses vary. Students may re-enroll without repeating subject matter. Specific times and topics will be announced in the Class Schedule, in classes and through campus media. CSU/UC

**ART 122A. Russian Art at the Legion**
ART 123M. Master European Painting
ART 123N. European Art at the Legion
ART 123P. American Art: The Peale Family
ART 123Q. Baroque Masters of Light
ART 123R. Congo and African-American Art
ART 123S. Greek and Thracian Art
ART 123T. British Art at the Legion
ART 123U. 18th c. French Art at the Legion
ART 123V. Renaissance Art at the Legion
ART 123W. 19th Century Painting at the Legion
ART 123X. Baroque Art at the Legion

**ART 123Y. 19th c. Realism and Courbet**
ART 123Z. Eternal Egypt at the Legion

**ART 124. American Art at De Young (3)**
Lec-3
American master paintings from the time of the Revolution to the 20th century on exhibit in the newly reopened De Young Fine Arts Museum will be examined. Artifacts will be analyzed for the formal qualities of style, interpreted within the context of American history and mainstreamed within a broader context of the western tradition. CSU/UC

### Fine Arts Courses

The Fine Arts Curriculum provides students with a comprehensive range of instruction in the methods of producing two and three-dimensional artwork. Basic Design: ART 125A, and Basic Drawing: 130A, serve as prerequisites for Intermediate and Museum Drawing courses as well as Illustration, Painting, Printmaking, and Mixed Media courses. All studio classes should be taken sequentially in order for students to acquire the skills necessary for their success in intermediate and advanced course work.

**ART 125A. Basic Design (3)**
Lec-2, lab-4, field trips
Advises: Completion/concurrent enrollment in ART 130A
Repeat: max. 6 units
An introduction to the basic components of 2D design: subject, form and content, with a focus on their dynamic interrelation. Observation, analysis, discussion of 2D design in contemporary, historical, fine and commercial arts and projects stressing the elements and principles of visual organization and using various media are assigned. CSU/UC

**ART 125B. Advanced Design (3)**
Lec-2, lab-4, field trips
Prereq.: ART 125A
Advises: ART 130A
Repeat: max. 9 units
Continuation of basic design with an emphasis on advanced two-dimensional and beginning three-dimensional design. Advanced experimentation in color. Design problems geared to assist the following majors: Fine and applied arts, photography, theater arts, fashion, and interior and architectural design. Further exploration and development of creativity. CSU/UC

**ART 126. Color (3)**
Lec-2, lab-4, field trips
Repeat: max. 6 units
A study of the basic properties and theories of color, including the practice of color mixing, creating color relationships and harmonies, optical, psychological and spatial effects of color, and properties of pigments. Historical, cultural and subjective uses of color will be explored. Work will be done in water based color media. CSU/UC

**ART 130A. Basic Drawing (3)**
Lec-2, lab-4, field trips
Advises: Completion/concurrent enrollment in ART 125A
Repeat: max. 6 units
A course in the theory and practice of drawing using a systematic variety of media and subject matter. The student will examine drawing through the graphic elements of line, plane, tone, shape, form, volume, rendering, and perspective. The course includes an introduction to light and shadow. Beginning problems will be structured to guide the student and the instructor will assist in this experience through indi-
ART 130B. Intermediate Drawing (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
Repeat: max. 9 units
Continued development of drawing skills, with additional approaches to
drawing, composition, and varied drawing materials. CSU/UC

ART 131A. Museum Drawing (3)
Lec-2, lab-4, field trips
Prereq.: ART 130A
Repeat: max. 6 units
The Legion of Honor Museum will initially act as the studio/atelier
for the continuance of the tradition of museum drawing; development
of skills and expansion of abilities in the creation of unique drawings
through classroom and museum instruction. CSU

ART 131B. Advanced Museum Drawing (3)
Lec-2, lab-4, field trips
Prereq.: ART 130A and 131A
Repeat: max. 9 units
Builds upon skills and techniques already acquired in ART 131A.
Development of original sketches and compositions based on major
works in the Legion of Honor Museum. CSU

ART 132A. Beginning Figure Drawing (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
Repeat: max. 6 units
ART 132A IS STRONGLY RECOMMENDED FOR ALL ART MAJORS.
An introduction to the drawing of the nude human figure. Analysis of
basic forms, structure, proportion, symmetry, balance, and rhythm.
Introductory anatomy. CSU/UC

ART 132B. Advanced Figure Drawing (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A, 130A, and 132A
Repeat: max. 9 units
Advanced study of the drawing of the nude human figure. Analysis of
basic forms, structure, proportion, symmetry, balance, and rhythm.
Human anatomy. CSU/UC

ART 136A. Introduction to Illustration (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
Repeat: max. 6 units
Introduction to the professional field of illustration. Instruction
will focus on principal areas within the field (Editorial, Advertising,
Fashion and Scientific), its history, career aspects, and current trends.
Students will explore and apply a variety of media and illustration
techniques, while developing critical thinking, research, and problem-solving
skills. CSU

ART 136B. Illustration in Color (3)
Lec-2, lab-4, field trips
Prereq.: ART 136A
Repeat: max. 9 units
Further exploration of visual communication strategies as they relate
to the field of illustration. Experimenting with wet and dry media, use
of research, techniques and professional presentation in the develop-
ment of personal style. Focus on professional problem-solving
approach in the following areas: book illustration, graphic narrative,
caricature, and character design. CSU

ART 136C. Advanced Illustration (3)
Lec-2, lab-4, field trips
Prereq.: ART 136B
Repeat: max. 9 units
Development of professional portfolio, comprehensive layout, and
the use of type in illustration; digital imaging techniques and artwork
preparation for reproduction; emphasis on advanced development
of personal style through an examination of content, materials and
techniques, as well as further development of vocabulary and presenta-
tional skills for effective visual communication. CSU

ART 137. Humorous Illustration (3)
Lec-2, lab-4
Prereq.: ART 130A
Elements of humorous illustration; basics of exaggeration, distortion,
caricature; differentiation of these from the grotesque. Importance
of observation and the use of a sketchbook to draw from real life situa-
tions. CSU

ART 140A. Beginning Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
Repeat: max. 6 units
Studio course in the technical and conceptual basics of painting both
in oils and acrylics. Through hands-on practice, lectures, and critiques
the student develops the requisite skills and techniques as well as the
underlying conceptual and perceptual abilities necessary to painting.
In addition, the student is introduced to the historical traditions and
the contemporary context of the field. CSU/UC

ART 140B. Intermediate Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 140A
Repeat: max. 9 units
Development of painting techniques and style into advanced con-
cepts and the processes of painting. Emphasis will be placed on the
development of individual style and interest, with exploration in the
experimental use of media and technique. Personal creativity will be
stressed, and dialogue will be pursued in the broader understanding of
aesthetics and contemporary thinking. CSU/UC

ART 140C. Advanced Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 140B
Repeat: max. 9 units
Focus on the development of a self-directed creative process; building
on the concepts, skills, and issues of ART 140B; long-term thematic
projects, series projects, and mixed-media assignments leading to
advanced-level exploration of contemporary art issues and media. CSU/UC

ART 141. Acrylic Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
Repeat: max. 6 units
An introduction to the painting techniques and characteristics of
acrylic media. No media requiring volatile solvents will be used.
Historic traditions and the contemporary context of painting are intro-
duced. CSU/UC
ART 145A. Introduction to Watercolor Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
Repeat: max. 6 units
Instruction and practice in the materials, techniques, concepts, and history of watercolor painting. Through lecture, demonstration, hands-on experience, and critiques, the student will develop the technical, perceptual, and conceptual skills to produce and analyze paintings. Emphasis will be on technical development and personal explorations. CSU/UC

ART 145B. Advanced Watercolor Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 145A
Repeat: max. 9 units
Continuation of ART 145A. Develop additional skill in painting with the transparent watercolor. Class will introduce techniques in opaque watercolor (gouache) and explore options in paper surfaces. Analyze transparent, sedimentary, and staining pigment groups to extend knowledge of color and texture choices. Study of contemporary and historical art history. Emphasis is on the development of individual styles and interests. CSU/UC

ART 146A. Beginning Chinese Brush Painting (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
Orientation on the three classic elements of Chinese art (brush painting, calligraphy and seal engraving) with emphasis on Chinese masterpieces both ancient and contemporary, focusing on the concepts of style, line, composition, perspective and stroke. CSU/UC

ART 146B. Advanced Chinese Brush Painting (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
Continuation of ART 146A utilizing traditional and contemporary Chinese art styles with emphasis on complex landscapes, flowers, animals and figures. CSU/UC

ART 150A. Fine Arts Printmaking (3)
Lec-2, lab-4, field trips
Prereq.: ART 130A
Repeat: max. 6 units
An introduction to the basics of intaglio and relief printmaking with an emphasis on both contemporary and traditional aspects of the medium. Various plate making and printing techniques will be explored as students develop their aesthetic skills and creative ideas. CSU/UC

ART 150B. Fine Art Intaglio Printmaking (3)
Lec-2, lab-4, field trips
Prereq.: ART 150A
Repeat: max. 9 units
This is an intermediate and advanced level intaglio printmaking course which incorporates traditional and contemporary intaglio techniques to help students create more complex and innovative work. An emphasis is on color and multiple plate projects which build on skills in etching, drypoint, mezzotint, collagraph and photo processes. CSU/UC

ART 150C. Fine Art Relief Printmaking (3)
Lec-2, lab-4, field trips
Prereq.: ART 150A
Repeat: max. 9 units
The ART 150 series may be taken concurrently and/or out of sequence. This is an intermediate and advanced relief printmaking course which incorporates traditional and relief techniques to help students create more complex and innovative work. An emphasis is on color and multiple plate projects. CSU/UC

ART 151A. Beginning Monoprint (3)
Lec-2, lab-4, field trips
Prereq.: ART 130A
Repeat: max. 6 units
Introduction to a wide variety of contemporary monoprint techniques. Through lecture, demonstration, studio practices, and critiques, students develop the skills and concepts necessary for basic work in this exciting area. Monoprint is a cross over discipline that combines skills of drawing and painting with printmaking. Introduction to historical traditions and contemporary issues of the field. CSU/UC

ART 151B. Intermediate Monoprinting (3)
Lec-2, lab-4, field trips
Prereq.: ART 151A
Repeat: max. 9 units
Intermediate Monoprinting will focus on more complex monoprint techniques. The emphasis of this course stresses the development of individual artistic growth building on material covered in 151A (Beginning Monoprinting). Students will plan and execute long term thematic, mixed media, and self directed projects. Contemporary issues and approaches will be explored through lecture and demonstration. Lecture demonstrations will be followed up with individualized attention so students can strengthen personal weakness related to the techniques and concepts of monoprinting in the studio laboratory situation. CSU/UC
Formerly ART 15B.

ART 151C. Advanced Monoprinting (3)
Lec-2, lab-4, field trips
Prereq.: ART 151B
Repeat: max. 9 units
The emphasis of Advanced Monoprinting is the further development of the student's creative process to execute long term thematic, mixed media and self-directed projects. Students utilize materials, processes, and methods of beginning, intermediate and advanced monoprinting, while focusing on a body of interrelated monoprints that explore their personal creativity through experimental means. Students prepare a portfolio of work that is suitable for advanced study, transfer, and/or career opportunities. CSU/UC

ART 154. Hand Printed Book: Design and Production (3)
Lec-2, lab-4
Prereq.: ART 150A
Repeat: max. 9 units
The bookmaking process focusing on the design of pages using fine art printmaking combined with letterpress and digital typesetting technologies. Participation in the bookmaking process as author, illustrator, and publisher. Research on the history of the book and an examination of the book arts community in San Francisco and beyond. CSU
ART 154 = GRPH 154
ART 155. Bookbinding (3)
Lec-2, lab-4
Repeat: max. 9 units
Study and practice of bookbinding. First: basic structures and craftsmanship. Second: innovative bindings and conservation techniques. CSU
ART 155 = GRPH 155

ART 156. Mixed Media: Works on Paper (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
Repeat: max. 6 units
This course selectively and aesthetically combines various media and techniques of drawing, painting, photography, printing and collage into two and three-dimensional works. Through structured studio experience, lectures and critiques, the student will develop the requisite skills and techniques as well as the conceptual basis of this contemporary art form. Underlying the instruction is a historical component which emphasizes modern and contemporary art to broaden the student's interest and awareness of contemporary trends. CSU/UC

ART 160A. Beginning Ceramics (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
Introduction to developing ceramic forms in a studio atmosphere. Basic methods of ceramic forming through use of the potter's wheel and hand-construction techniques, glaze application, and kiln-firing processes. Lectures on the historical uses of clay and its relationship to the development of civilizations and industry. Emphasis on technical development and exploration of clay as a means for aesthetic growth. CSU/UC

ART 160B. Intermediate Ceramics (3)
Lec-2, lab-4, field trips
Prereq.: ART 160A
Repeat: max. 9 units
Emphasis on wheel-throwing and hand-building skills, and on surface techniques. Introduction to non-technical glaze experimentation. Further development of aesthetics. CSU/UC

ART 160C. Advanced Ceramics (3)
Lec-2, lab-4, field trips
Prereq.: ART 160B
Repeat: max. 9 units
Advanced development of ceramic forms in a studio atmosphere. Advanced methods of ceramic forming through the use of the potter's wheel and hand-construction techniques, glaze formulation, advanced glaze application techniques and kiln-firing processes. Lectures on the historical uses of clay and its relationship to the development of civilizations and industry. Emphasis on technical and conceptual development and exploration of clay as a means for aesthetic growth. CSU/UC

ART 162A. Ceramic Sculpture I (3)
Lec-2, lab-4, field trips
Prereq.: ART 160A and 160B
Repeat: max. 6 units
Introduction to the basic techniques and concepts of making sculpture with ceramic materials. Emphasis on the development of concepts and content in the execution of ceramic sculpture. Utilization of plaster mold-making and slip casting, basic hand-building, wheel-throwing, and mold work as applied to sculpture. Exploration of additive and subtractive processes, press molds, surface development and formulation of glazes pertaining to sculpture. Emphasis on technical development and exploration of clay as a means for aesthetic growth. CSU/UC

ART 162B. Ceramic Sculpture II (3)
Lec-2, lab-4, field trips
Prereq.: ART 160A, 160B, and 162A
Repeat: max. 9 units
A continuing exploration of concepts and techniques in making sculpture with ceramic materials. Conceptualizing and creating in three dimensions. Hand building, wheel-throwing, and mold work as applied to ceramic sculpture. Continued emphasis on the development of concepts and content in the execution of the ceramic sculpture. Utilization of plaster mold-making and slip casting, basic hand building, wheel-throwing, and mold work as applied to sculpture. Surface development and formulation of glazes pertaining to sculpture. Emphasis on exploration of clay as a means for aesthetic growth. CSU/UC

ART 160A. Beginning Sculpture (3)
Lec-2, lab-4
Repeat: max. 6 units
Introduction to the basic elements of three-dimensional form and historical evolution of sculpture. Students will learn basic modeling in clay; mold making and beginning woodworking techniques. Emphasis will be placed on building technical skills, expression and artistic growth. UC/CSU

ART 170A. Beginning Sculpture (3)
Lec-2, lab-4
Repeat: max. 6 units
Introduction to the basic elements of three-dimensional form and historical evolution of sculpture. Students will learn basic modeling in clay; mold making and beginning woodworking techniques. Emphasis will be placed on building technical skills, expression and artistic growth. UC/CSU

ART 170B. Intermediate Sculpture (3)
Lec-2, lab-4, field trips
Prereq.: ART 170A
Repeat: max. 9 units

ART 170C. Advanced Sculpture (3)
Lec-2, lab-4, field trips
Prereq.: ART 170A and 170B
Repeat: max. 9 units
Further advanced processes of sculpture with emphasis on metal work using the welding process. Students will have an opportunity to decide what areas of sculpture they wish to investigate in depth, with instructors' approval and based on previous experience. The successful completion of Art 170B is required in order to take Art 170C. CSU/UC

ART 180A. Beginning Metal Arts (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
An introduction to basic fabricating processes, i.e., forming, annealing, and soldering of both common and fine metals. Projects vary from engraving to the setting of gemstones, or the making of small sculptures. Survey of the history of metal arts, from the Bronze Age to the present. Emphasis on the knowledge and development of manual skills to gain personal aesthetic sense. CSU
ART 180B. Intermediate Metal Arts (3)
Lec-2, lab-4, field trips
Prereq.: ART 180A
Repeat: max. 9 units
This course is designed to enable the art student to organize and present a body of work in an effective and professional manner for transfer. Through hands-on practice, lectures, demonstrations and critiques, the student gains the requisite skills for portfolio development. CSU

ART 180C. Advanced Metal Arts (3)
Lec-2, lab-4, field trips
Prereq.: ART 180B
Repeat: max. 9 units
An introduction to production techniques, mold making, and advanced casting techniques. This course involves a close look at the development of the student's ideas, from conception to completion, including possible marketing ideas. CSU

ART 185. Portfolio Preparation (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
This course is designed to enable the art student to organize and present a body of work in an effective and professional manner for transfer, advanced study opportunities and/or career preparation. Through hands-on practice, lectures, demonstrations and critiques, the student gains the requisite skills for portfolio development. CSU

ART 187A. Independent Study (2)
Ind st-5, field trips
Prereq: ANY ADVANCED LEVEL ART COURSES
An opportunity for students to perform specialized studies in art with the guidance of an art instructor of his/her choice. CSU

ART 187B. Independent Study (2)
Ind st-5, field trips
Prereq.: ART 187A
An opportunity for students to continue to perform specialized studies in art with the guidance of an art instructor of his/her choice. CSU

Asian American Studies
Office: Batmale 358
Phone Number: (415) 239-3865
Web Site: www.ccsf.edu/asam

Announcement of Courses
Credit, Degree Applicable Courses:
ASAM 6. Asian American Issues Through Literature (3)
Lec-3, field trips P/NP available
This course will examine long term and emergent issues in different genres of Asian American literature. Themes such as dislocation and displacement, nation, home, race, gender, and sexuality will be considered. CSU/UC

ASAM 8. Filipino American Community (3)
Lec-3 P/NP available
Description and analysis of Filipino American community problems from a sociological viewpoint. Cultural shock and other problems of adaptation of Filipino immigrants considered in light of the carryover from Filipino culture and psychology. CSU/UC

ASAM 10. Asian American Popular Culture (3)
Lec-3, field trips P/NP available
This course will consider the ways Asian Americans have turned to a wide range of cultural productions such as music, performance arts, visual culture, film, and spoken word to challenge and contest dominant meanings associated with Asianness/Asian Americanness. It emphasizes an interdisciplinary approach to the study of Asian American cultural productions, with particular attention to the ways race, gender, class, and sexuality inform and shape them. CSU/UC

ASAM 20. Asian American Experience: 1820 to Present (3)
Lec-3 P/NP available
Examination of United States history and government through the experience of immigrant groups to the U.S. from China, Japan, Korea, the Philippines, and India. Topics to be explored include immigration experiences, economic opportunities, culture, family, community, political and social history of the individual immigrant groups. A local field trip may be required. CSU/UC

ASAM 22. Community Issues & Leadership (3)
Lec-3, field trips P/NP available
This course provides an overview of contemporary Asian Pacific American (APA) community identity, leadership, organization, history, needs, concerns, civic participation and public policy. Required field trips will visit key APA organizations and leaders. CSU/UC

ASAM 27. Asian American Race Relations (3)
Lec-3 P/NP available
Understanding of race relations between Asian Americans and other ethnic groups including African Americans and European Americans including theories of race and interaction; and considerations such as class, economics, and social inequities. CSU/UC

ASAM 30. Asian American Issues Through Film (3)
Lec-3 P/NP available
Through films, issues of the Asian American experience will be explored. Films will examine the experience of immigrants to the United States from China, Japan, the Philippines, India, and Southeast Asia. Issues to be discussed include identity, immigration, ties to Asia, work, culture, family, community, political policies, stereotypes and social history. CSU/UC

ASAM 35. Asian American Women (3)
Lec-3 P/NP available
Examination of the lives of Asian American women, using a multi-disciplinary approach which includes literature, poetry, history, political science, anthropology and sociology. Readings, papers and discussions on the social, cultural, political and economic conditions facing Asian American women. Field trip may be required. CSU/UC

ASAM 40. The Chinese American Community (3)
Lec-3 P/NP available
(No knowledge of Chinese required)
Description and analysis of the Chinese American community from a sociological point of view. The historical background, family and district organizations, power structure, immigrants, cultural pattern and conflicts, and the socioeconomic problems of the Chinese American community. CSU/UC

ASAM 42. Southeast Asian Community in the U.S. (3)
Lec-3, field trips P/NP available
Examination of one of the fastest growing Asian American groups in the United States during the past 15 years: mainland Southeast Asian Americans from Vietnam, Cambodia and Laos. The diversity of the
Southeast Asian community in the United States will be examined. Topics such as socioeconomic adaptation, community organization and family life will be discussed from a sociological viewpoint. A local field trip may be required. CSU/UC

ASAM 61-62-63. Asian American Community Field Study (1-2-3)
Conf-1, work-5,10,15 P/NP available
Repeat: max. 6 units
Based on fieldwork and supervised community participation, participants in this course will examine the local experience of Asian American and Pacific Island communities. CSU

ASAM 65. Individual Study in Asian American Studies (3)
Ind st-15 P/NP available
Repeat: max. 9 units
Supervised individual or group study on topics and issues in Asian American Studies. CSU (UC upon review)

Asian Studies
Office: Batmale 373
Phone Number: (415) 239-3089
Web Site: www.ccsf.edu/asianst

Announcement of Courses

General Information
The Asian Studies Department has a flexible interdisciplinary program designed to assist students who are interested in acquiring knowledge and interests in Asian culture and language. The diverse faculty members offer a rich and supportive small class environment that encourages critical thinking and participatory involvement in Asian subjects. Most of its courses are UC and CSU transferable which prepare students for continuing in degree programs in the UC and the CSU systems.

Learning Outcomes
After taking the courses of interest offered in the Asian Studies Department, students will become more globally conscious in their approach to life. They will improve their interpersonal skills, respect for cultural diversity, historical and aesthetic sensitivity, and overall maturity as contributing members of our growing diverse society.

Credit, Degree Applicable Courses:
ASIA 1. Modern Pacific Asia: An Introduction (3)
Lec-3, field trips P/NP available
Development of history, economics, politics, and cultures of the Pacific Basin region since the 16th century. Analysis of the emergence of the modern Pacific Asia from the 19th century onward as a principal political and economic center of the upcoming century. CSU/UC

ASIA 11. East Asian Calligraphy: An Introduction (3)
Lec-3, field trips P/NP available
Examination of the historical development and cultural aspects of the East Asian (China, Japan, Korea) calligraphy, with emphasis on Chinese Hanzi but also including Japanese Kana syllabaries and Korean Hangeul characters; critical analysis of their relationship with East Asian philosophy, religion, literature, and art. CSU/UC

ASIA 12. East Asian Literature in Film:
Early Modern & Modern Era (3)
Lec-3 P/NP available
Introduction to East Asian (China, Japan, Korean) literature from the early Modern (15th–18th century) to the Modern Era (19th–20th century)

through the media of film. Critical analysis of how literature reflects cultural values and social changes. No knowledge of Chinese, Japanese, or Korean required. CSU/UC

ASIA 20. Law Enforcement in Asian Communities (3)
Lec-3 P/NP available
Prereq.: ENGL 93 or ESL 160; or placement in ENGL 96 or ESL 170
This course introduces students to relevant issues in the histories, cultures, and philosophies in Asia which affect law enforcement in Asia and the United States. Law enforcement procedures are examined in light of the unique history and culture of Asian populations. CSU

ASIA 30. Manga and Animation (3)
Lec-3, field trips P/NP available
An overview of the history and styles of Japanese comics (manga) and animation (anime), and the role they play in Japanese, American, and world cultures both as artistic forms of expression and as representations of social and political issues. CSU/UC

ASIA 176. Business/Culture: Vietnam (3)
Lec-3, field trips P/NP available
A course exploring Vietnamese culture and its impact on business. Subjects include history, aesthetics, communication and social structures and customs. This course will create a context for doing business in Southeast Asia. CSU

ASIA 176 = INTR 176

ART 104. Asian Art History (3)
Lec-3, field trips
A survey of the artistic heritages of Asia, from Iran in the west to the south-eastern regions of Indonesia, spanning five millennia of Asian art history. Art 104 explores the themes and beliefs which give unity to the art of this part of the world, as well as the diverse cultural characteristics which led to the development of national styles. CSU/UC

ART 146A. Beginning Chinese Brush Painting (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
Orientation on the three classic elements of Chinese art (brush painting, calligraphy and seal engraving) with emphasis on Chinese masterpieces both ancient and contemporary, focusing on the concepts of style, line, composition, perspective and stroke. CSU/UC

ART 146B. Advanced Chinese Brush Painting (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
Continuation of ART 146A with emphasis on artistic development. Investigation of methods of traditional and contemporary Chinese art. Paintings of various subject matter including complex landscapes, flowers, birds, animals and figures. Free brush strokes and meticulous styles. Lectures and demonstrations will be offered with slides and videos. Individual expression will be encouraged by modeling after a series of masterpieces and original works. Group and individual critiques. Outdoor painting and museum visits. CSU/UC

Chinese Language Courses: See Chinese in this section of the catalog.

CHIN 29A-29B. Chinese Literature in Translation (3-3)
Lec-3 P/NP available
Advise: Eligible for ENGL 1A
CHIN 29A is not prerequisite to 29B. No knowledge of Chinese required. Reading and discussion of representative works in English translation. CSU/UC
CHIN 39. Major Achievements of Chinese Thought and Culture (3)
Lec-3
Advise: Eligible for ENGL IA
No knowledge of Chinese required. Not open to students who are enrolled in or who have completed CHIN 49.
A consideration of the humanistic traditions of China, the most recent archaeological discoveries, and their relation to those of other countries in East Asia. CSU/UC

CHIN 49. Major Achievements of Chinese Thought and Culture (3)
Lec-3
No knowledge of Chinese required. Not open to students who are enrolled in or who have completed CHIN 39.
A consideration of the humanistic traditions of China, the most recent archaeological discoveries, and their relation to those of other countries in East Asia. CSU

HLTH 50. Tai Chi for Health (3)
Lec-2.5, lab-1.5
Tai Chi Chuan is a form of thought and physical movement that incorporates meditation into motion. Emphasis on the philosophical and practical application of Tai Chi thought as it applies to human health and life. Practice of basic Tai Chi Chuan forms (Yang Style). CSU/UC

HIST 33. History of South Asia (3)
Lec-3
No knowledge of South Asia required.
A survey of the history of India, Ceylon, and Pakistan, with emphasis on the development of modern India and its role in international affairs. CSU

HIST 34. The History of Japan (3)
Lec-3
No knowledge of Japanese required.
A survey of the history of Japan, with emphasis on the more important political, economic, social, artistic, and cultural aspects of Japanese life as well as on the development of modern Japan and its role in world affairs. CSU

HIST 35A-35B. History of China (3-3)
Lec-3
No knowledge of Chinese required.
HIST 35A is not prerequisite to 35B
HIST 35A. Historical, social, political, intellectual, cultural, artistic, and economic development of China from ancient times to approximately 1900. CSU/UC
HIST 35B. Historical, social, political, intellectual, cultural, artistic, and economic developments in twentieth century China. CSU/UC

HIST 36. History of Southeast Asia (3)
Lec-3
No knowledge of Southeast Asia required.
A survey of the history of Southeast Asia, with emphasis on the role of the United States in Southeast Asia. CSU

HIST 44. Comparative History of Overseas Chinese (3)
Lec-3
No knowledge of Overseas Chinese required.
The history and social organization of overseas Chinese communities in Southeast Asia, Latin America, and North America from the Eastern Han Dynasty to the present. CSU

IDST 27A-27B-27C. Asian Humanities (3-3-1)
IDST 27A is not prerequisite to 27B
No knowledge of foreign languages required

IDST 27A-27B. Asian Humanities (3-3)
Lec-3
Advise: ELIGIBLE FOR ENGL IA
No knowledge of Chinese required. Not open to students who are enrolled in or who have completed CHIN 49.
A team-taught survey of Asian civilizations, especially Arabic-Islamic, Indian, Chinese, and Japanese cultures. Emphasis on literature, philosophy, religion, and the arts. Explanation, through an interdisciplinary and cross-cultural approach, of the differences and underlying unity of Asian cultures and a comparison with their Western counterparts. Use of the best available English translations of Asian literature along with slides, films, recordings, and field trips. CSU/UC

IDST 27C. Asian Humanities (1)
Ind-st-5
Advise: IDST 27A or 27B
An independent study/research course under direction of one or more instructors, focusing on a specific area of study. CSU (UC upon review)

IDST 28. Current Topics and Issues in the Pacific Rim (3)
Lec-3, field trips
No knowledge of the Pacific Rim required.
Emphasis on current affairs and issues in any of the Pacific rim countries. CSU

IDST 37. Racial and Ethnic Groups in the United States - A Comparative Survey (3)
Lec-3
No knowledge of race or ethnicity required.
An interdisciplinary survey of the history, culture, problems, and conditions of American ethnic minorities and the effects of racism, prejudice, and discrimination on emerging minority groups in the United States. CSU

Japanese Language Courses: See Japanese in this section of the catalog.

JAPA 39. Japanese Culture and Civilization (3)
Lec-3
Advise: Eligible for ENGL IA
No knowledge of Japanese required. Not open to students who are enrolled in or have completed JAPA 49.
A consideration of the major achievements of Japanese culture as reflected in language, literature, art, religion and daily life. CSU

JAPA 49. Japanese Culture and Civilization (3)
Lec-3
No knowledge of Japanese required. Not open to students who are enrolled in or have completed JAPA 49.
A consideration of the major achievements of Japanese culture as reflected in language, literature, art, religion and daily life. CSU

MUS 24. Music of East Asia (3)
Lec-3, lab-1, field trips
No knowledge of music required.
A cross-cultural, comparative survey of both historical and recent developments in the music of China, Japan, and Korea, including the relationship of East Asian music to other aspects of East Asian cultures—philosophy, religion, theater, and dance. CSU

POLS 35. Government and Politics of East Asia (3)
Lec-3
No knowledge of government or politics required.
A survey of political developments and changes in East Asia, with emphasis on the governments and politics of China and Japan. The role of other world powers in this region, including the Soviet Union and the United States. CSU
PSYC 22. Psychology of Race and Ethnic Relations (3)
Lec-3  P/NP available
Not open to students who are enrolled in or who have completed PSYC 23.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. CSU/UC

PSYC 23. Psychology of Race and Ethnic Relations (3)
Lec-3  P/NP available
Prereq.: PSYC 1
Not open to students who are enrolled in or who have completed PSYC 22.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. Relevant psychological theories and research are applied to a required research paper on psychological and social problems related to discrimination. CSU/UC

Announcement of Courses
General Information
The Astronomy Department offers classes to students who wish to satisfy the Natural Sciences requirement for the associate degree. For students intending to transfer to a four-year university that has a laboratory science requirement, 1-unit laboratory classes are offered that may be taken prior to, concurrently with or after completion of a lecture course. For students interested in astronomy or astrophysics as a career, the department provides instruction in a broad range of courses to prepare the student for transfer to a four-year university that has a laboratory science requirement. Further information, contact the department chairperson at (415) 452-5666.

Credit, Degree Applicable Courses
ASTR 1. Cosmic Evolution (3)
Lec-3
Origin, evolution, and final state of our physical universe. Formation, evolution, and properties of our galaxy and other galaxies, the sun and other stars, and our solar system. Extrasolar planets and the possibility of life elsewhere in the universe. Emphasis is on the development of the cosmos and its components. UC/CSU

ASTR 4. Life in the Universe (3)
Lec-3, field trips
Biological perspective on areas of current space research that seeks to unify topics such as understanding the origin of life on Earth, studying environments in which life exists, and identifying environments which might support extraterrestrial life in the Solar System and beyond. CSU/UC

ASTR 14. Exploring the Universe (3)
Lec-3
(Designed for students who have not completed ASTR 1, 17, 18, 19, or 20 with a final grade of C or higher)
A non-math course stressing the observational universe as seen through the use of telescopes, space probes, theoretical and computer modeling, and other aids. The great ideas of ancient and modern astronomy. Fundamental ideas in the physical sciences appropriate to understanding the structure of the universe and the origin of life. CSU/UC

ASTR 16. Observational Astronomy (1)
Lab-3, field trips
Prereq.: Completion of/or concurrent enrollment in ASTR 1 or 14 or 17 or 18 or 19
Through direct investigation, students will learn the motion and appearance of the night sky, investigate astronomical objects such as stars, planets, and nebulae, and become familiar with modern observational tools and techniques. CSU/UC

ASTR 17. Solar System (3)
Lec-3
An introduction to the modern study of planetary astronomy and the possibilities of extraterrestrial life. Emphasis on the characteristics of the Solar System's planets, analysis of their life-support possibilities. Examination of planetary system's origins and characteristics. Modern methods of planetary exploration and analysis of the challenges of interplanetary and interstellar travel and communication. CSU/UC

ASTR 18. Stars (3)
Lec-3
An introduction to the modern study of the characteristics and evolution of stars and stellar systems. Observations and theories regarding stars as the primary producers of energy in the universe and of the chemical elements necessary for life. Properties of the final states of stars: supernovae, white dwarfs, neutron stars, black holes, and gamma-ray bursts. Understanding the effects of stellar evolution on galaxies and cosmology. CSU/UC

ASTR 19. Galaxies and the Universe (3)
Lec-3
Introduction to cosmology and extragalactic astronomy, with a focus on basic questions of existence: where do we come from and what is our fate? Universe origin, evolution and fate, Big Bang cosmology, expansion and acceleration of the universe, large scale structure, dark matter, properties and phenomena of galaxies and active galactic nuclei. UC/CSU

ASTR 20. Introduction to Astrophysics (4)
Lec-3, conf-1
Prereq.: ASTR 1, 14, or 16
Designed for students who desire an astronomy course more advanced than the general survey course. Emphasis is on the current state of theoretical astrophysics and research astronomy. An opportunity for students to pursue independent research projects or to develop teaching aids for astronomy. The college planetarium and observatory, including the Celestron 14-inch telescope, a CCD camera, and fiber-optic spectrograph are available for the student. CSU/UC
Automotive/Motorcycle, Construction, and Building Maintenance

Office: 1400 Evans  
Phone Number: (415) 550-4409  
Web Site: www.ccsf.edu/autotech

Announcement of Curricula

City College offers credit for two years of pre-apprentice training for students seeking employment in the automotive industry. Students may apply the earned credit toward the Associate in Science degree.

Employment. Successful completion of training in this program prepares students for entry employment in the areas of automotive-mechanic and body person apprenticeship. Training will be considered in determining level of entry into apprenticeship.

Admission. Applicants for admission must complete an application form which may be obtained from the automotive-technology adviser at 1400 Evans Avenue training center. All applications are reviewed and evaluated, and the results are forwarded to each applicant. To be accepted into the program, students must fulfill the following prerequisites:

1. Completion of ENGL 90 or ESL 150 or placement in ENGL 92 or ESL 160; AND
2. Completion of MATH E1 or E3 or BSMA G, H or J, OR placement in MATH 40

Recommended High School Preparation. Preparation is recommended in auto shop, electricity, machine shop, mechanical drawing, and welding.

Counseling. The automotive-technology adviser consults individually with students in order to help each student select a program best suited to the student's interests and abilities.

General Education. Instruction in general education is included so that students may satisfy the College graduation requirements in this area.

Associate in Science Degree. Students who wish to earn an Associate in Science degree must complete the general-education requirements for graduation from the College and additional electives. Students who satisfy these requirements and complete either of the options in the Curriculum receive the degree of Associate in Science in Automotive Technology. Such students are advised to consult with a College counselor.

Automotive Technology

Automotive Mechanics Major (AS)

Courses Required for the Major in Automotive Mechanics

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 50 Intro to Automotive Mechanics</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 51 Automotive Electrical</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 52 Brakes, Suspension and Alignment</td>
<td>8</td>
</tr>
<tr>
<td>Electives (choose 1)</td>
<td></td>
</tr>
<tr>
<td>AUTO 53 Automatic and Manual Transmission</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 54 Engine Repair</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 55 Engine Performance and Drivability</td>
<td>8</td>
</tr>
<tr>
<td>Total Units</td>
<td>32</td>
</tr>
</tbody>
</table>

Auto Body Damage Analysis and Estimating Certificate

This certificate is for learners achieving advanced training in auto body dent and damage repair, auto body frame straightening and repair, auto body plastic repair and refinishing, and study in the nomenclature and inter-relationships of automotive parts, systems and functions in preparation for ASE (Automotive Service Excellence) certification test B6. This certificate includes instruction in automotive systems, and functions (AUTO 50), the assessment and demonstration of straightening and aligning techniques and repair (AUTO 204), the evaluation, demonstration, and analysis of minor body and fender damage and the sequential procedures involved in their repair (AUTO 200), the demonstration of the techniques of repairing, replacing and refinishing of body plastics, glass, and fiberglass (AUTO 206)

Learning Outcomes

Upon completion of this certificate, students will be able to:

• Analyze and differentiate the various parts, components, and systems of the automobile.
• Use shop safety practices related to auto body repair, welding, and frame straightening.
• Analyze and perform frame straightening and alignment and demonstrate integration with steering and suspension systems.
• Identify and demonstrate appropriate plastic, glass, and fiberglass removal, installation, and repair.
• Calculate repair costs and estimates.
• Summarize and demonstrate the techniques involved in auto body dent and damage repair.

Students must complete each course with a grade of “C” or higher.

Courses Required for the Certificate of Accomplishment in Auto Body Damage Analysis and Estimating

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 50 Intro to Automotive Mechanics</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 200 Dent and Damage Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 204 Auto Body Frame Straightening &amp; Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 206 Auto Body Plastic Repair &amp; Refinishing</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>9</td>
</tr>
</tbody>
</table>

Auto Body Painting and Refinishing Certificate

This certificate is for learners achieving advanced training in auto body painting and refinishing, dent and damage repair, plastics and composite material repair and refinishing, and custom painting in preparation for ASE (Automotive Service Excellence) certification test B2. This certificate includes instruction in the basics of dent and damage repair (AUTO 200), the understanding and skills of painting and refinishing, (AUTO 203), the understanding and practice of the repair of plastics and composite materials, (AUTO 206), and the theory and practice of custom painting including air brushing (AUTO 63).

Learning Outcomes

Upon completion of this certificate, students will be able to:

• Analyze and apply the understanding of the materials, equipment, techniques and processes in the successful application of polyurethane and water based chemicals.
• Use shop safety practices related to auto body repair and painting.
• Demonstrate how to use different painting tools and equipment including how to disassemble, assemble, and clean paint guns.
• Demonstrate how to wet sand to remove minor paint imperfections as well as hand and machine compounding processes.
• Demonstrate the use of computer color matching systems and the use of tinting solid and metallic colors.
• Evaluate and repair plastic part damage and paint plastic surfaces.
• Calculate repair costs and estimates.
• Create and apply graphic designs using masking and air brush techniques.

Students must complete each course with a grade of "C" or higher.

Students may apply for a certificate having completed course work or equivalent standards within the past 5 years.

Courses Required for the Certificate of Accomplishment in Auto Body Painting and Refinishing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 200 Dent and Damage Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 203 Introduction to Auto Body Painting and Refinishing</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 206 Auto Body Plastic Repair and Refinishing</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 63 Auto Custom Painting</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>9</td>
</tr>
</tbody>
</table>

Auto Body Structural Analysis and Damage Repair Certificate

This certificate is for learners achieving advanced training in auto body dent and damage repair, welded panel replacement and repair, auto body frame straightening and repair, and auto body welding in preparation for ASE (Automotive Service Excellence) certification test 84. This certificate includes instruction in the basics of dent and damage repair (AUTO 200), the understanding and skills of welded panel replacement and repair, (AUTO 202), the understanding and practice of body frame straightening and repair, (AUTO 204), and the theory and practice of auto body welding (AUTO 205).

Learning Outcomes

Upon completion of this certificate, students will be able to:

• Analyze minor body and fender damage and the sequential procedures involved in proper metal repair.
• Differentiate and demonstrate the various techniques of cutting, fastening, and joining of metals and metal parts related to vehicle body and frame structures.
• Use shop safety practices related to auto body repair, welding, and frame straightening.
• Analyze and perform frame straightness and alignment and demonstrate integration with steering and suspension systems.
• Identify and demonstrate appropriate welding technology in the installation of welded panels.
• Calculate repair costs and estimates.
• Describe and demonstrate methods used to remove and replace structural parts.

Students must complete each course with a grade of "C" or higher.

Students may apply for a certificate having completed course work or equivalent standards within the past 5 years.

Courses Required for the Certificate of Accomplishment in Brake and Suspension Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 200 Dent and Damage Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 202 Welded Panel Replacement and Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 204 Auto Body Frame Straightening and Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 205 Auto Welding</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>9</td>
</tr>
</tbody>
</table>

Automotive Metal Repair Certificate

Students may obtain the Certificate of Achievement in Automotive Metal Repair by completing the following courses with final grades of C or higher:

Courses Required for the Certificate of Achievement in Automotive Metal Repair

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 120 Automotive Welding</td>
<td>6</td>
</tr>
<tr>
<td>AUTO 121 Metal Repair &amp; Welding</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 122 Panels, Glass, Trim &amp; Hardware</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 123 Frame Straightening &amp; Aligning</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 124B Surface Prep and Paint</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>35</td>
</tr>
</tbody>
</table>

Courses in this subject area require a special materials fee.

Brake and Suspension Specialist Certificate

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Brake and Suspension Specialist by completing the following courses with a grade of C or higher in each course.

Courses Required for the Certificate of Accomplishment in Brake and Suspension Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 50 Intro to Automotive Mechanics</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 52 Brakes, Suspension, Alignment</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

Carpentry Certificate

This certificate is for learners achieving training in the nomenclature, methods, and materials necessary to build a complex wood framed building, including framing of floors, walls, ceilings, roofs, and stairways. Associated training in seismic code and framing plan analysis; techniques to install windows, doors, stairs, siding, cabinets, and trim. This certificate includes instruction in appropriate safety practices and procedures (CNST 69), foundational construction principles, procedures, tools, and equipment (CNST 100), basic construction, nomenclature, and hands-on framing skills (CNST 111), advanced framing applications and stair building (CNST 112), nomenclature and hands-on practice in the fine craftsmanship required for finish work (CNST 113), and successfully reading and understanding blueprints, building codes, and framing plans (CNST 107). Students completing this certificate program will be qualified for employment in companies both union and non-union where carpentry skills are called upon.

Learning Outcomes

Upon completion of this certificate, students will be able to:

• Identify basic OSHA (Occupational Safety and Health Administration) requirements, recognize and evaluate general safety hazards, and take appropriate action.
• Measure, layout, calculate, and estimate construction projects using appropriate tools and equipment.
• Analyze and differentiate framing plans, materials, engineered lumber, fasteners, and hardware.
• Frame walls, ceilings, roofs, and exterior/interior stairs.
• Calculate material requirements and install all interior and exterior finish materials to include doors, windows, stair carriages, treads, railings, and trim joinery.
• Read floor plans, elevations, and building sections; interpret construction abbreviations, nomenclature, composition, and analyze interconnected systems.

Students must pass each class with a grade of “C” or higher.

Students may apply for a certificate having completed course work or equivalent standards within the past 5 years.

Courses Required for the Certificate of Accomplishment in Carpentry

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNST 69 Construction Safety</td>
<td>1</td>
</tr>
<tr>
<td>CNST 100 Introduction to Construction Applications</td>
<td>3</td>
</tr>
<tr>
<td>CNST 111 Carpentry Rough Framing</td>
<td>4</td>
</tr>
</tbody>
</table>

Elective Courses: Choose 4 units from one of the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNST 112 Carpentry Advanced Framing</td>
<td>4</td>
</tr>
<tr>
<td>CNST 113 Finish Carpentry</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units ........................................ 12

Engine Repair Specialist Certificate

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Engine Repair Specialist by completing the following courses with a grade of “C” or higher in each course.

Courses Required for the Certificate of Accomplishment in Engine Repair Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 50 Intro to Automotive Mechanics</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 54 Engine Repair</td>
<td>8</td>
</tr>
</tbody>
</table>

Total Units ........................................ 16

General Automotive Technician Certificate

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in General Automotive Technician by completing the following courses with a grade of “C” or higher in each course.

Courses Required for the Certificate of Accomplishment in General Automotive Technician

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 50 Intro to Automotive Mechanics</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 51 Automotive Electrical</td>
<td>8</td>
</tr>
</tbody>
</table>

Total Units ........................................ 16

Non-Structural Analysis and Damage Repair Certificate

This certificate is for learners achieving advanced training in non-structural analysis and damage repair in preparation for ASE (Automotive Service Excellence) certification test 83. This certificate includes instruction in the basics of dent and damage repair (AUTO 200), the understanding and skills of bolted panel replacement and repair, (AUTO 201), the understanding and skills of automotive welding, (AUTO 205), and the theory and practice of auto body plastic welding and refinishing (AUTO 206).

Learning Outcomes

Upon completion of this certificate, students will be able to:

• Analyze minor body and fender damage and perform the sequential procedures involved in proper metal repair.
• Use shop safety practices related to auto body non-structural repair.
• Select the proper tools, equipment, and techniques for removing, repairing, and replacing bolted panels.
• Evaluate and select the proper welding equipment and perform techniques for appropriate body metal repairs.
• Evaluate, repair, and paint damaged plastic, composite parts, and surfaces.
• Calculate repair costs and estimates.

Students must complete each course with a grade of “C” or higher.

Students may apply for a certificate having completed course work or equivalent standards within the past 5 years.

Courses Required for the Certificate of Accomplishment in Non-Structural Analysis and Damage Repair

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 200 Dent and Damage Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 201 Bolted Panel Replacement and Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 205 Auto Body Welding</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 206 Plastic Repair and Refinishing</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Units ........................................ 8

Transmission Specialist Certificate

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Transmission Specialist by completing the following courses with a grade of “C” or higher in each course.

Courses Required for the Certificate of Accomplishment in Transmission Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 50 Intro to Automotive Mechanics</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 53 Automatic and Manual Transmissions</td>
<td>8</td>
</tr>
</tbody>
</table>

Total Units ........................................ 16

Motorcycle Technology

Motorcycle Technician Major (AS)

This Motorcycle Technician Associate in Science Degree prepares students to enter the motorcycle maintenance field with all the necessary skills to perform entry-level work as well as to have a thorough understanding of theory so they will be qualified to participate in advanced training at the dealer or manufacturer. Degree holders are expected to be first in line for jobs as service managers and manufacturer’s representatives.

Associate in Science Degree. The AS Degree may be obtained by completion of the required program plus general education requirements and sufficient electives to meet a 60 unit total.

Courses Required for the Major in Motorcycle Technician

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTO 81 Motorcycle Fuel, Lube &amp; Cooling</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 82 Motorcycle Tune-Up &amp; Gen. Service</td>
<td>4</td>
</tr>
</tbody>
</table>
MOTO 83 Motorcycle Electrical Systems ............... 4
MOTO 84 Motorcycle Engine Theory .................. 4
MOTO 85 Motorcycle Exhaust, Frame, Susp., Tires, Wheels, and Brakes ................. 4
MOTO 86 Motorcycle Engine Overhaul .................. 3
MOTO 87 Motorcycle Power Trans. Systems .......... 4
MOTO 88 Motorcycle Dyno-Testing/Repair .......... 2
MOTO 90* Introduction to Motorcycle Technology .... 5
Total Units ......................................... 34

*MOTO 90 is a prerequisite for all the other Moto courses.

Motorcycle Technician Certificate

Courses Required for the Certificate of Achievement in Motorcycle Technician

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTO 81 Motorcycle Fuel, Lubr &amp; Cooling</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 82 Motorcycle Tune-Up &amp; Gen. Service</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 83 Motorcycle Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 84 Motorcycle Engine Theory</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 85 Motorcycle Exhaust, Frame, Susp., Tires, Wheels, and Brakes</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 86 Motorcycle Engine Overhaul</td>
<td>3</td>
</tr>
<tr>
<td>MOTO 87 Motorcycle Power Trans. Systems</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 88 Motorcycle Dyno-Testing/Repair</td>
<td>2</td>
</tr>
<tr>
<td>MOTO 90* Introduction to Motorcycle Technology</td>
<td>5</td>
</tr>
</tbody>
</table>
Total Units .................................. 34

*MOTO 90 is a prerequisite for all the other Moto courses.

Motorcycle Engine and Power Train Repair Certificate

This certificate is for learners achieving training in the theory of operation, troubleshooting, major overhaul, and general repairs of motorcycle engines and power trains. This certificate includes instruction in basic motorcycle systems (MOTO 90), and a thorough understanding of all aspects of motorcycle engine principles, specialized measurements, tools and equipment, diagnosis and repair of power train problems, disassembly and assembly, and appropriate adjustments. (MOTO 93) Students completing this certificate program will be qualified for employment in engine power train service and repair.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Distinguish, classify and summarize motorcycle systems, functions, and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic equipment.
- Evaluate, troubleshoot and service motorcycle fuel, lubrication, frame, suspension, brakes, wheels, and cooling systems.
- Set up and operate MIG, TIG, Gas Welding, English Wheel, Power Hammer, and various other metal shaping equipment or:
  - Demonstrate knowledge and proper application of surface preparation products, base, mid and clear coats, color sanding, polishing and finishing techniques as well as creating and applying graphic designs using masking and airbrush techniques.

Students must complete each course with a grade of "C" or higher.

Motorcycle General Service Certificate

This certificate is for learners achieving training in the design, operation, inspection, disassembly, cleaning, measuring, and rebuilding of components as well as preventive maintenance and troubleshooting situations. This certificate includes instruction in basic motorcycle systems (MOTO 90), and a thorough understanding of motorcycle fuel, lubrication, frame, suspension, brakes and cooling systems. (MOTO 91) Students completing this certificate program will be qualified for employment in general service and tune-up.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Distinguish, classify and summarize motorcycle systems, functions, and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic equipment.
- Evaluate, troubleshoot and service motorcycle fuel, lubrication, frame, suspension, brakes, wheels, and cooling systems.
- Identify, troubleshoot, analyze, and diagnose components and systems in order to provide advice for customers seeking to modify parts.
- Set up and operate MIG, TIG, Gas Welding, English Wheel, Power Hammer, and various other metal shaping equipment or:
  - Demonstrate knowledge and proper application of surface preparation products, base, mid and clear coats, color sanding, polishing and finishing techniques as well as creating and applying graphic designs using masking and airbrush techniques.

Students must complete each course with a grade of "C" or higher.

Motorcycle Tune-up, Electrical, and Performance Certificate

This certificate is for learners achieving training in the tune-up, troubleshooting, performance tuning on a dynamometer, electrical principles, components, regulation, controls, switching and testing of electrical systems. This certificate includes instruction in basic motorcycle systems (MOTO 90), and a thorough understanding of all aspects of motorcycle performance tuning and maintenance of electrical systems. (MOTO 92) Students completing this certificate program will
be qualified for employment in performance tune-up and electrical
diagnostics.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Distinguish, classify and summarize motorcycle systems, func-
tions, and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic
equipment.
- Evaluate, troubleshoot and service motorcycle fuel, lubrication,
frame, suspension, brakes, wheels, and cooling systems.
- Set up and operate MIG, TIG, Gas Welding, English Wheel,
Power Hammer, and various other metal shaping equipment or:
- Demonstrate knowledge and proper application of surface
preparation products, base, mid and clear coats, color sanding,
polishing and finishing techniques as well as creating and apply-
ing graphic designs using masking and airbrush techniques.

Students must complete each course with a grade of “C” or higher.

Electives from each certificate may include courses from the others as
well as:

TIXX 9699 Furnituremaking and Woodworking .................. 108
TIXX 9710 Contractor Licensing .................................. 105

Residential Plumbing Certificate

This certificate authenticates training in the methods and materi-
als necessary to install a residential plumbing system. This certificate
includes instruction in appropriate safety practices and procedures
(CNST 69), foundational construction principles, procedures, tools
and equipment (CNST 100), plumbing theory, major components,
functions, materials, design and installation (CNST 103), regulations,
permits, inspections, proper sequencing, and enforcement of code
regulations (CNST 106), and successful reading and understanding
blueprints and plumbing drawings (CNST 107).

Students completing this certificate program will be qualified for both
union and non-union employment where residential plumbing skills
are called upon.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Identify basic OSHA (Occupational Safety and Health
Administration) requirements, recognize and evaluate general
safety hazards and take appropriate action.
- Measure, layout, calculate, and estimate construction projects
using appropriate tools and equipment.
- Interpret plumbing code requirements, drawings, and sequence
of construction, as well as evaluate the various applications of
materials and methods required by code standards.
- Analyze, design, and install supply/drain/waste/vent piping,
valves, fittings and fixtures.
- Read floor plans, elevations and building sections.
- Interpret construction abbreviations, nomenclature, composi-
tion, and analyze interconnected systems.

Students must pass each class with a grade of “C” or higher.

Electives from each certificate may include courses from the others as
well as:

TIXX 9699 Furnituremaking and Woodworking .................. 108
TIXX 9710 Contractor Licensing .................................. 105

Residential Plumbing Certificate

This certificate authenticates training in the methods and materi-
als necessary to install a residential plumbing system. This certificate
includes instruction in appropriate safety practices and procedures
(CNST 69), foundational construction principles, procedures, tools
and equipment (CNST 100), plumbing theory, major components,
functions, materials, design and installation (CNST 103), regulations,
permits, inspections, proper sequencing, and enforcement of code
regulations (CNST 106), and successful reading and understanding
blueprints and plumbing drawings (CNST 107).

Students completing this certificate program will be qualified for both
union and non-union employment where residential plumbing skills
are called upon.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Identify basic OSHA (Occupational Safety and Health
Administration) requirements, recognize and evaluate general
safety hazards and take appropriate action.
- Measure, layout, calculate, and estimate construction projects
using appropriate tools and equipment.
- Interpret plumbing code requirements, drawings, and sequence
of construction, as well as evaluate the various applications of
materials and methods required by code standards.
- Analyze, design, and install supply/drain/waste/vent piping,
valves, fittings and fixtures.
- Read floor plans, elevations and building sections.
- Interpret construction abbreviations, nomenclature, composi-
tion, and analyze interconnected systems.

Students must pass each class with a grade of “C” or higher.

Electives from each certificate may include courses from the others as
well as:

TIXX 9699 Furnituremaking and Woodworking .................. 108
TIXX 9710 Contractor Licensing .................................. 105

Residential Plumbing Certificate

This certificate authenticates training in the methods and materi-
als necessary to install a residential plumbing system. This certificate
includes instruction in appropriate safety practices and procedures
(CNST 69), foundational construction principles, procedures, tools
and equipment (CNST 100), plumbing theory, major components,
functions, materials, design and installation (CNST 103), regulations,
permits, inspections, proper sequencing, and enforcement of code
regulations (CNST 106), and successful reading and understanding
blueprints and plumbing drawings (CNST 107).

Students completing this certificate program will be qualified for both
union and non-union employment where residential plumbing skills
are called upon.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Identify basic OSHA (Occupational Safety and Health
Administration) requirements, recognize and evaluate general
safety hazards and take appropriate action.
- Measure, layout, calculate, and estimate construction projects
using appropriate tools and equipment.
- Interpret plumbing code requirements, drawings, and sequence
of construction, as well as evaluate the various applications of
materials and methods required by code standards.
- Analyze, design, and install supply/drain/waste/vent piping,
valves, fittings and fixtures.
- Read floor plans, elevations and building sections.
- Interpret construction abbreviations, nomenclature, composi-
tion, and analyze interconnected systems.

Students must pass each class with a grade of “C” or higher.

Electives from each certificate may include courses from the others as
well as:

TIXX 9699 Furnituremaking and Woodworking .................. 108
TIXX 9710 Contractor Licensing .................................. 105

Residential Plumbing Certificate

This certificate authenticates training in the methods and materi-
als necessary to install a residential plumbing system. This certificate
includes instruction in appropriate safety practices and procedures
(CNST 69), foundational construction principles, procedures, tools
and equipment (CNST 100), plumbing theory, major components,
functions, materials, design and installation (CNST 103), regulations,
permits, inspections, proper sequencing, and enforcement of code
regulations (CNST 106), and successful reading and understanding
blueprints and plumbing drawings (CNST 107).

Students completing this certificate program will be qualified for both
union and non-union employment where residential plumbing skills
are called upon.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Identify basic OSHA (Occupational Safety and Health
Administration) requirements, recognize and evaluate general
safety hazards and take appropriate action.
- Measure, layout, calculate, and estimate construction projects
using appropriate tools and equipment.
- Interpret plumbing code requirements, drawings, and sequence
of construction, as well as evaluate the various applications of
materials and methods required by code standards.
- Analyze, design, and install supply/drain/waste/vent piping,
valves, fittings and fixtures.
- Read floor plans, elevations and building sections.
- Interpret construction abbreviations, nomenclature, composi-
tion, and analyze interconnected systems.
TIEE 9572 DC Electricity ........................................ 105
Electives (select 3) .................................................. 105
TICU 9550 Custodial Training ...................................... 105
TIEE 9573 Electrical Basic Controls .............................. 105
TIEE 9574 Electrical Code and Constr. Practice ............... 105
TIXX 9505 Plumbing Applications ................................. 105
TIXX 9701 Haz Matls Training ..................................... 105
LAIR 9809 Labor Rel in Select Indus .............................. 105
Total Hours .............................................................. 630

Grade requirements: Students must have 85% of the required hours for the certificate with a grade of C or better.

Custodial Training Noncredit Certificate

Core Course Hours
TICU 9550 Custodial Training ...................................... 108
TICU 9554 Basic Custodial Skills ................................. 48
Total Hours .............................................................. 156

Grade Requirements: Students must have 85% of the required hours for the certificate with a grade of C or better.

Announcement of Courses

Automotive Technology

Credit, Degree Applicable Courses:

AUTO 50. Intro to Automotive Mechanics (8)
Lec-8, lab-4, field trips
Prereq.: MATH E1, EX, BSMA G, H, or J, ENGL 90 or ESL 150
Orientation to the automobile: design, construction, operation, industry, and ethics; technical vocabulary, automotive components, systems, safety procedures. Use of automotive references and specifications. Use of basic tools for automotive repair. Workplace skills covered will include the basic maintenance and repair of the automobile and its systems for the entry-level automotive maintenance worker or home hobbyist. CSU

AUTO 51. Automotive Electrical (8)
Lec-6, lab-6, field trips
Prereq.: AUTO 50 or pass Challenge Test
Repeat: max. 24 units
A basic course focusing on automotive electrical systems including basic electrical theory, battery technology, starting systems, charging systems, lighting systems, instrumentation and wiring. A technical course focusing on higher-level electrical troubleshooting including the use of digital volt ohm meters, digital storage oscilloscopes, scan tools, and engine analyzers in the diagnosis and repair of modern automotive electronics. Students will prepare for Official State Lamp Adjusting License and ASE A6 and L-1 Examinations. CSU

AUTO 52. Brakes, Suspension, Alignment (8)
Lec-6, lab-6, field trips
Prereq.: AUTO 50 or pass Challenge Test
Repeat: max. 24 units
Principles of construction, mechanical operation, preventive maintenance and repair of vehicle braking systems, including computer operated systems, Anti-Lock Brake Systems (ABS) Preparation, Automotive Service Excellence (ASE) testing, Brake Certification, and State Brake License. Principles of construction, mechanical operation, preventive maintenance and repair of suspension systems, wheel alignment and wheel balancing. Preparation for A.S.E. certification. CSU

AUTO 53. Automatic and Manual Transmissions (8)
Lec-6, lab-6, field trips
Prereq.: AUTO 50 or pass Challenge Test
Repeat: max. 24 units
Instruction in diagnosis and servicing of automatic and manual transmissions, clutches, 4-wheel drives, drive shafts, differentials, and electronic sensing devices. Preparation is given for national certification test. CSU

AUTO 54. Engine Repair (8)
Lec-6, lab-6, field trips
Prereq.: AUTO 50 or pass Challenge Test
Repeat: max. 24 units
A hands-on course focusing on the analysis of engine problems and proper steps in repair procedures, including cooling and exhaust systems and timing belt replacements as well as the disassembly, precision measurement, analysis of potential engine failures, reconditioning, and rebuilding of automotive engines. CSU

AUTO 55. Engine Performance/Drivability (8)
Lec-6, lab-6, field trips
Prereq.: AUTO 50 or pass Challenge Test
Repeat: max. 24 units
Course focus is on maintenance and troubleshooting including the use of analog and digital volt ohm meters, digital storage oscilloscopes, scan tools, and engine analyzers, vacuum and pressure gauges in the diagnosis and repair of modern automotive ignition, fuel, and emission systems. Preparation for National Certification (ASE A8 and L-1 Engine Performance) Examinations, students become familiar with trade practices in the testing and replacement of ignition system components, vehicle fuel and emission systems testing, component testing and replacement. CSU

AUTO 56. Introduction to Hybrid Auto Maintenance and Repair (3)
Lec-3, lab-3, field trips
Prereq.: AUTO 50 and AUTO 51
Repeat: max. 9 units
Principles and functions of hybrid automobiles, and procedures for their maintenance, problem diagnosis and repair. Function of individual system components examined. Critical importance of safety and hybrid-unique equipment and procedures. Maintenance procedures and diagnostic and repair processes for at least one type of hybrid (Parallel or Series-Parallel) taught in detail. CSU

AUTO 57. Alternative Fuel Vehicles (3)
Lec-3, Lab-3
Prereq.: AUTO 50
Repeat: max. 9 units
Principles and functions of alternative fuel vehicles and procedures for their maintenance, system diagnosis foroptional efficiency. Safety procedures and environmental practices will be emphasized. Hands-on lab exercises, vehicle inspections, along with repairs will be conducted. Discussion of the appropriate niche transportation for all situation will be analyzed. CSU

AUTO 60. Independent Study (Auto Technology) (1-3)
Ind st-5, 10, 15, conf-1, field trips
Prereq.: AUTO 50
Repeat: max. 2, 4, 6 units
Research and application of advanced skills within the topic of Automotive/Trade Skills. Allows student to investigate subjects of special interest and develop skills toward those interests, such as frame
design and fabrication, suspension design and fabrication, engine performance modification and drivability computer. CSU

AUTO 61. Independent Study (Auto Body) (1-3)
Ind st-5, 10, 15, conf-1, field trips P/NP available
Advis: Completion of at least 16 units in Auto Body Trade Skills or consent of instructor. Student must obtain approval of project from instructor.
Repeat: max. 2, 4, 6 units
Research and application of advanced skills within the topic of Auto Body Trade Skills. Allows student to investigate subjects of special interest and develop skills toward those interests, such as frame design and fabrication, suspension design and fabrication, sheet metal and fiberglass design and fabrication and show vehicle preparation. CSU

AUTO 62. Independent Study (Motorcycle Small Engine Repair) (1-3)
Ind st-5, 10, 15, conf-1, field trips P/NP available
Advis: Completion of at least 6 units in Motorcycle and Small Engine Repair, or consent of instructor. Student must obtain approval of project from instructor.
Repeat: max. 2, 4, 6 units
Research and application of advanced skills within the topic of Motorcycle and Small Engine Repair. Allows student to investigate subjects of special interest and develop skills toward those interests, such as Frame Design and Fabrication, Suspension Design and Fabrication, Engine Performance Modification and Sheet Metal Design and Fabrication. CSU

AUTO 69. Basic Automotive Maintenance and Care (2)
Lec-1, lab-3
This course is a basic overview of the maintenance and care of cars for the owner. The course includes: how cars work, safety, responsibility, upkeep, basic tools, and technical terminology. CSU

AUTO 96. Basic Automotive Welding (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
Course is directed toward the knowledge and skills needed by collision repair technicians. Introduction of specialized equipment as outlined by I-Car for auto collision repair. Repairing, replacing and welding collision damaged auto body parts. Utilizing the automotive frame rack for straightening and welding of the auto frame. Students will learn the proper procedures and equipment applications as they apply to auto collision techniques. CSU

AUTO 98. Specialty Electronics (3)
Lec-2, lab-4, field trips
Prereq.: AUTO 50
Repeat: max. 9 units
A technical course focusing on higher level electrical troubleshooting including the use of digital volt ohm meters, digital storage oscilloscopes, scan tools, and engine analyzers in the diagnosis and repair of modern automotive electronics. Preparation for the Official State Lamp Adjusting Licensing and National Certification (ASE L-1 Advanced Engine Performance) Examination. CSU

AUTO 105. Auto Electronics I - Advanced Tune-Up (3)
Lec-2, lab-4, field trips
Repeat: max. 6 units
Instruction is designed to develop skills and practices in automotive tune-ups to manufacture specifications. Includes use of electronic scopes, meters, test equipment, diagnosis of malfunctions, the exhaust emission control systems, ignition scopes, power cylinder balance, Tach and Dwell meters, infrared meters, percentages of monoxides, carburation, electricity, and other concepts and practices. CSU

AUTO 106. Auto Electronics II- Electrical Diagnosis (1.5)
Lec-2, lab-4, field trips (8 wks)
Prereq.: AUTO 105
A study of and practice in electronic diagnosis and repair of automotive electrical systems using modern electronic testing equipment, including the use of electrical and electronic testing equipment; the use and interpretation of wiring diagrams, shop manuals, common practices for trouble shooting electrical problems and other practices. CSU

AUTO 107. Auto Electronics III - Fuel Injection (3)
Lec-2, lab-4, field trips
Prereq.:AUTO 105 and 106
Repeat: max. 6 units
Study of automotive and light truck fuel injection systems emphasizing the basic principles of diagnosis and repair of these systems. Demonstration and practice are offered on bench and operational vehicle systems. Instruction includes the development of a systematic procedure for testing and troubleshooting fuel injection systems. CSU

AUTO 109. Auto Electronics V-Ford Computers (1.5)
Lec-2, lab-4, field trips (8 wks)
Prereq.: AUTO 107
The history, operation, and diagnosis of Ford's Electronic Engine Control systems (EEC), Distributorless Ignition System (DIS), ABS brakes, and other Ford computer controlled systems. Emphasis on the use of special test equipment and proper diagnostic procedures. CSU

AUTO 109A. Advanced Ford Computers (1.5)
Lec-2, lab-4 (8 wks)
Repeat: max. 4.5 units
Designed for students with basic knowledge of the Ford EEC-IV system. Hands-on practice in retrieving and diagnosing EEC-V and EEC-V systems. Learn how and why of the federal mandated OBD-II differs from OBD-I. The advantages of OBD-II. CSU

AUTO 111. Auto Electronics VI-G.M. Computers (1.5)
Lec-2, lab-4, field trips (8 wks)
Prereq.: AUTO 107
Diagnosis and repair of General Motors automotive computers and related systems, General Motors including the identification and analysis of problems, trouble shooting practices and maintenance of unit; the procedures for diagnosis of computer units including removal, disassembly, repair, reassembly, and replacement of units in General Motors manufactured vehicles. CSU

AUTO 112. Clean Air Car Course (Basic) (2)
Lec-5, lab-1, field trips (8 wks)
Advis: ENGL 92 or ESL 160 or Placement in ENGL 93 or 94; or ESL 170; MATH E or BSMA G, H or J
Repeat: max 6 units
Preparation for the Bureau of Automotive Repair Smog Check Licensing Exam. Smog check rules, regulations and updates; emission systems; test and repair procedures; TAS machine operation; and test (exam) preparation. CSU

AUTO 113. Gasoline Engines Diagnosis and Repair (3)
Lec-2, lab-4
Repeat: max. 6 units
Theory, operation and diagnosis of the four-stroke cycle internal combustion engine, and how different designs and configurations effect
power, economy, drivability and smog. Systems covered: cooling, lubrication, fuel, intake, exhaust, and ignition. CSU

AUTO 120. Automotive Welding (6)
Lec-5, lab-10
Prereq.: ENGL 90 or ESL 150
Repeat: max. 18 units
Development of proficiency in automotive repair welding and experiencing welding and cutting techniques used in the repair. Includes welding and cutting techniques, equipment, and current safety/environmental trade practice. CSU

AUTO 121. Metal Repair and Welding (8)
Lec-5, lab-10, field trips
Principles of modern automobile construction; basic techniques of electric-arc and oxyacetylene welding as applied to automotive metal repair; principles of expansion and contraction applied to reclamation of damaged structures, preparation for A.S.E. Certification. CSU

AUTO 122. Panels, Glass, Trim and Hardware (8)
Lec-5, lab-10, field trips
Procedures related to the assembly and disassembly of automotive body and fender components. Removal and replacement of side panels, bumpers, windsheilds and windows, broken braces and inner structural members, and trim moldings. CSU

AUTO 123. Frame Straightening and Aligning (8)
Lec-5, lab-10, field trips
Techniques of straightening and aligning automotive frames and structural members using alignment rack and testing equipment. Application of hand tools and equipment to align frames, torsion bars, axles, wheels and steering mechanisms. Preparation for A.S.E. Certification. CSU

AUTO 124B. Surface Preparation and Painting (5)
Lec-5, lab-10, field trips
Advanced phases of auto body paint/finish repair techniques including preparing metal and plastic surfaces, masking, and painting/finishing. Modern automotive coatings and trim service. Current safety and environmental trade practices. Pending NATEF approval. CSU

AUTO 125. Body Repair and Refinishing (3)
Lec-2, lab-4, field trips
Advise: Eligible for ENGL 94 or ESL 160 or 82 and MATH 40
Repair and refinishing of automotive bodies and fenders including recommended practices for repair of body parts, frame straightening and alignment, basic soldering, plastic filler materials and techniques, gas and arc welding, mig welding, preparation of surfaces, painting, finishing and detailing, estimating of labor, materials, parts and supplies for auto body repair. CSU

AUTO 126. Principles of Auto Body Repair (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
Metal finishing techniques including mig and oxyacetylene, welding, application of plastic fillers and body solder, principles of metal working unibody and frame repair alignment. Preparation for entry level employment in auto repair. CSU

AUTO 127. Preparation and Refinishing (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
Procedures for removing old finishes, moldings, trim. Preparation of surfaces, sanding, filling scratches, using putty and primers, techniques of mixing paints, applying paints, use of spray and polishing equipment. CSU

AUTO 128. Frame Straightening and Alignment (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
Techniques and procedures applied to straightening and aligning automotive frames and structural members using alignment rack and equipment. Application of tools and measuring devices to align frames and unibodies. CSU

AUTO 129. Auto Body Trim and Hardware (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
Procedures related to assembly and disassembly of automotive body and fender components. Removal and replacement of side panels, windshield, braces, inner structural members, trim, upholstery, moldings and bumper assemblies. CSU

AUTO 131. Electrical Vehicle Conversion (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
The history and artistry of early electric vehicles and the impact of American culture and economics on the development of alternative fueled vehicles and vice-versa. How to analyze and evaluate fossil fueled vehicles as candidates for electric power conversion. Hands-on application of basic electrical systems design and diagnosis, electric vehicle control, power train systems theory operation and installation, and vehicle body modification and fabrication of parts. CSU

AUTO 133. Work Experience (1-4)
Supervised employment involving automotive related duties. CSU

AUTO 134. Work Experience - Smog Intern Paid (4)
Lec-1, work-300
Prereq.: AUTO 50 and 112
Coreq.: Enrollment in at least 7 semester units including this course and consent of instructor
Advise: AUTO 133; Completion of at least 8 semester units of Automotive program courses
Repeat: max. 12 units
Supervised employment involving automotive related duties as related to Smog Repairs. Student must provide tune-up hand tools (i.e., spark rockets, ratchets, timing light). CSU

AUTO 135. Domestic Electronic Engine Controls OBD-I-II (3)
Lec-3, lab-3, field trips
Repeat: max. 9 units
An in depth study into Domestic Automotive Engine Computer Control OBD-I-II Systems. Exploration of the operation, diagnosis, and repair of Domestic Automotive Electronic Engine Computer Control Systems. General diagnosis will be emphasized using multimeters, scan tools, manuals, and lab scopes. CSU
AUTO 137. Gaseous Alternative Fuel Systems (3)
Lec-3, lab-1, field trips
Repeat: max. 9 units
A course to familiarize students with the following as related to gaseous fuels: 1) purpose of alternative fuels, 2) alternative fuels legislation, 3) refueling procedures, 4) fuel system inspection, 5) system components nomenclature, 6) system adjustment, 7) component replacement, 8) drivability and diagnosis. CSU

AUTO 138. Automatic Transmissions and Transaxles (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
An in-depth study of automatic transmissions and transaxles. Basic study of electronic controls. General diagnosing using manuals, meters, flow charts and scan tools, along with pressure gauges. CSU

AUTO 200. Auto Body Dent and Damage Repair (2)
Lec-1, lab-3 P/NP Available
Advise: AUTO 50
Repeat: max. 6 units
Basic introduction to welding, metal bumping, metal finishing, and plastic filling. Students will learn analysis of minor body and fender damage and the sequential procedures involved in proper metal damage repair by integrating their classroom gained knowledge with shop practice. CSU

AUTO 201. Bolted Panel Replacement (2)
Lec-1, lab-3 P/NP Available
PREREQ: AUTO 50
Repeat: max. 6 units
This course concerns the methods and techniques of fastening and joining metal and plastic parts as they relate to a professional fit and finish on vehicle body and frame structures, including alignment of metal and plastic parts. CSU

AUTO 202. Welded Panel Replacement (2)
Lec-1, lab-3 P/NP Available
Advise: AUTO 50
Repeat: max. 6 units
This course involves the various methods and techniques of cutting, fastening, and joining of metal and plastic parts as they relate to vehicle body and frame structures, including plasma arc cutting, electric spot, MIG (Metal Inert Gas), gas welding, brazing, and epoxy-joining processes. CSU

AUTO 203. Painting and Refinishing (2)
Lec-1, lab-3 P/NP Available
Advise: AUTO 50
Repeat: max. 6 units
This course is designed as an introduction to automotive urethane, polyurethane and water based refinishing. It includes a comprehensive study of the materials, equipment, techniques and processes in the successful application of each of the automotive refinishing materials by classroom gained knowledge with shop practice. CSU

AUTO 204. Body/Frame Straightening &Repair (2)
Lec-1, lab-3 P/NP Available
Advise: AUTO 50
Repeat: max. 6 units
This course concerns the study and repair of conventional and unitized vehicle frames, their straightening and alignment, alignment at cross members, rear and side frame members, suspension systems and steering principals. Frame straightening machines, gauges and tools as well as appropriate safety will be covered. CSU

AUTO 205. Auto Body Welding (2)
Lec-1, lab-3 P/NP Available
Advise: AUTO 50
Repeat: max. 6 units
In this course students will learn how to identify and work with different types of welding equipment used in the installation of welded panels. They will also learn various methods of welding, brazing, soldering and plasma are cutting of thin auto body material. CSU

AUTO 206. Plastic Repair & Refinishing (2)
Lec-1, lab-3 P/NP Available
Advise: AUTO 50
Repeat: max. 6 units
This course concerns the techniques of repairing, replacing, and refinishing the many types of plastic and fiberglass parts now being used in auto body construction. Many plastics can be heated, reshaped, repaired and refinished using a variety of different methods. CSU

Motorcycle Technology

Credit, Degree Applicable Courses:
MOTO 61. Custom Metal Fabrication (3)
Lec-2, lab-3, field trips
Repeat: max. 9 units
Students will develop the skills necessary to cut, shape, weld, and fabricate various types of metal products from raw materials. Usage of MIG, TIG, gas welding, English Wheel, Power Hammer, and various other metal shaping equipment and techniques will be presented. CSU

MOTO 62. Custom Design and Assembly (3)
Lec-2, lab-3, field trips
Repeat: max. 9 units
This course will give the student working knowledge of the necessary skills required to design and assemble a custom motorcycle. Students will conceptualize design parameters, research component vendors, estimate parts costs, and plan and execute assembly strategies. CSU

MOTO 63. Auto-Moto Custom Painting (3)
Lec-2, lab-4, field trips
Repeat: max. 9 units
Topics covered will be: surface preparation, base coating, mid coating, clear coating, graphic layout and airbrush techniques for the purpose of custom automotive, motorcycle and related fields. This course may require a materials fee for take home projects. CSU

MOTO 81. Fuel, Lubrication and Cooling (4)
Lec-3, lab-3, field trips
PREREQ: MOTO 60 or 90
Repeat: max. 12 units
This course covers the principles, theory of operation, design and functions of motorcycle fuel, lubrication and cooling systems as well as the inspection, disassembly, cleaning, measuring and rebuilding of the components of those systems. Upon completion of this class, a student should be able to perform preventive maintenance, troubleshoot discrepancies, repair the system components and know how to select suitable aftermarket parts in both dealer and independent shop settings. CSU
MOTO 82. Motorcycle Tune-up/Service (4)
Lec-3, lab-3, field trips  P/NP available
Prereq.: MOTO 60 or 90
Repeat: max. 12 units
This course covers motorcycle tune-up, general service, ignition, valve adjustment, lubrication, oil and filter changes as well as the special tools required. Further, it covers service, parts books, micro-fiche, computerized manuals and the logic employed in them. Upon completion of this class, a student should be able to perform virtually all aspects of scheduled maintenance such as tune-ups, valve adjustment, oil changes and lubrication service as well as troubleshoot and repair common maintenance discrepancies. CSU

MOTO 83. Motorcycle Electrical Systems (4)
Lec-3, lab-3, field trips  P/NP available
Prereq.: MOTO 90
Repeat: max. 12 units
This course covers the principles of basic electricity including terms, circuits, wiring diagrams and symbols, magnetism and methods of providing electrical energy for motorcycles. Various electrical components of generation, regulation, distribution, control, switching and methods of testing of motorcycle electrical systems will be discussed. Ignition systems and how they relate to the engine components will be covered. CSU

MOTO 84. Engine Theory (4)
Lec-3, lab-3, field trips  P/NP available
Prereq.: MOTO 60 or 90
Repeat: max. 12 units
This course offers a comprehensive view of how two and four-stroke motorcycle engines work through discussion of the theory of operation and technical principles involved in converting fuel to motion. This course is designed to give students the technical understanding necessary for working with modern internal combustion engines and students will learn the theory necessary in understanding the internal combustion engine. CSU

MOTO 85. Motorcycle Frame/Wheels/Brakes (4)
Lec-3, lab-3, field trips  P/NP available
Prereq.: MOTO 90
Repeat: max. 12 units
This course covers the theory, design and function of motorcycle exhaust systems, various frame and suspension designs, tires, cast and spoked wheels, and both disk and drum brakes. Upon completion of this course, a student should be able to perform preventive maintenance, troubleshoot discrepancies, repair systems and know how to select suitable aftermarket parts in both a dealer and independent shop setting. CSU

MOTO 86. Motorcycle Engine Overhaul (3)
Lec-2, lab-3, field trips  P/NP available
Prereq.: MOTO 60 or 90
Repeat: max. 9 units
This course offers a comprehensive view of overhaul techniques, pre-teardown diagnostics and post repair operations check of modern motorcycle engines. Repair procedures will be consistent with manufacturers and professional repair standards. Upon the successful completion of this class, a student will be able to perform a complete overhaul of the various types of modern motorcycle engines including water-cooled, multi-valve, and air-cooled V-twins engines. The student will be able to analyze various aspects of performance modifications. CSU

MOTO 87. Power Transmission Systems (4)
Lec-3, lab-3, field trips  P/NP available
Prereq.: MOTO 90
Repeat: max. 12 units
This course covers motorcycle power transmission systems. Converting mechanical power produced at the crankshaft to the rear wheel through clutch, transmission and the final drive system. Theory of operation including lubrication requirements, gear ratios, design and function of the primary drive, the clutch, the transmission and the final drive will be covered. Clutches, transmissions, and drive systems will be removed, disassembled, cleaned, inspected, measured, rebuilt, installed and inspected for proper operation. CSU

MOTO 88. Motorcycle Dyno Testing/Repair (2)
Lec-1, lab-3, field trips  P/NP available
Prereq.: MOTO 90
Repeat: max. 6 units
This is an in-depth course covering motorcycle engine, component theory and function as related to dynamometer (dyno) operation. A dyno is used for data acquisition of operating conditions and used to diagnosis and troubleshoot performance problems. Various motorcycles will be run on a dyno so students can use the data to trouble-shoot maintenance problems. After repairs or adjustments, the motorcycles will be run again to measure the results. CSU

MOTO 89. Mail Order Parts/Service (2)
Lec-1, lab-3  P/NP Available
Repeat: 2 units
This course trains students in the theory of operation, troubleshooting, major overhaul and general repairs of motorcycle engines and power trains. CSU

MOTO 90. Introduction to Motorcycle Technology (4)
Lec-3, lab-3  P/NP Available
Repeat: max. 8 units
This course is the prerequisite and entry level course to the motorcycle technician series. Students will learn an overview of the history of motorcycles, industry vocabulary and language, safety, tools, theory of operation and the basic use of hand tools in shop-related projects. CSU

MOTO 91. Motorcycle General Service (4)
Lec-3, lab-3  P/NP Available
Repeat: max. 12 units
This course covers motorcycle power transmission systems. Converting mechanical power produced at the crankshaft to the rear wheel through clutch, transmission and the final drive system. Theory of operation including lubrication requirements, gear ratios, design and function of the primary drive, the clutch, the transmission and the final drive will be covered. Clutches, transmissions, and drive systems will be removed, disassembled, cleaned, inspected, measured, rebuilt, installed and inspected for proper operation. CSU

MOTO 92. Tune-up, Electrical and Performance (4)
Lec-3, lab-3  P/NP Available
Repeat: max. 12 units
This course covers the principles, theory of operation, design and functions of motorcycle, fuel, lubrication, frame, suspension, brakes and cooling systems including skills necessary for inspection, disassembly, cleaning, measuring and rebuilding the components and perform preventive maintenance, troubleshooting discrepancies, repairing system components and selecting after market parts. CSU

MOTO 93. Engine & Power Train Repair (4)
Lec-3, lab-3  P/NP Available
Repeat: max. 12 units
This course trains students in the theory of operation, troubleshooting, major overhaul and general repairs of motorcycle engines and power trains. CSU
Construction

CNST 69. Construction Safety (1)
Lec-15 (total hrs)
A study of Occupational Safety and Health Administration requirements for the construction industry, leading to an ability to identify safety hazards and prevent accidents. The subject matter is tailored to specific occupations/trades as well as to general construction safety. Successful completion earns a lifetime OSHA 10 hour Construction Safety Certificate. CSU

CNST 100. Introduction to Construction Applications (3)
Lec-3, lab-2
Prereq.: Completion of OR concurrent enrollment in CNST 69 or possession of OSHA 10 Certificate
Overview of trades, design and management occupations connected to building projects. Introduction to use of project documents, plans, and specifications. Introduces relevant green technologies in the construction field. Practice in using measuring, hand, and power tools. CSU

CNST 101. Photovoltaic Installation, Entry Level (4)
Lec-3, lab-3
P/NP Available
Advise: CNST 100 or TIXX 1000 or CNST 109 or TIEE 1009
or TIEE 9576
Repeat: max. 8 units
An introduction to the design, installation and maintenance of Solar Photovoltaic (PV) systems. At hands-on approach to the installation of PV systems and associated safety issues. Prepares students to take the North American Board of Certified Energy Practitioners (NABCEP) entry level exam for "PV Installer". CSU

CNST 102. Concrete Applications (3)
Lec-3, lab-4
P/NP Available
Repeat: max. 6 units
An introduction to the uses, design and installation of concrete elements in construction. Students will apply classroom theory to real outdoor lab building projects. This class enables students to apply what they've learned to other construction courses, as well as to engineering and architecture. Industry safety standards will be strongly emphasized. CSU

CNST 103. Residential Plumbing (3)
Lec-3, lab-3, field trips
P/NP Available
Advise: CNST 69; and CNST 100 or CNST 1000
Repeat: max. 8 units
An introductory course in the methods, materials and installation techniques necessary to install a residential plumbing system. This course offers hands-on practice in the installation of supply, Drain/Waste/Vent (DWV), and gas systems. CSU

CNST 104. Solar Thermal Installation (4)
Lec-3, lab-2
Training for installers of solar water heating systems on or at buildings. This course is applicable to the installation contractor who must be knowledgeable about system design, and be able to adapt designs to fit a particular application or customer need. CSU

CNST 105. Electrical Code (6)
Lec-6
An in depth coverage of the National Electrical Code, state and local codes. The course instructs the student on how to use the electrical code books and is essential towards the requirements for the California State Electricians Certificate and C-10 State Electrical Contractors License. CSU

CNST 106. Fundamentals of the Uniform Plumbing Code (3)
Lec-3
P/NP Available
Provides training in the requirements of the California Uniform Plumbing Code Title 24. Topics include general regulations, permit and inspection, residential plumbing systems, storm drainage, fuel piping, health care medical gas, mandatory standards, indirect waste, private sewer disposal systems, gray water systems. CSU

CNST 107. Blueprint Reading (3)
Lec-2, lab-4, field trips
P/NP Available
Advise: CNST 100 or TIXX 1000; and MATH E or ET 108A
This course teaches the skills of blueprint reading and specifications. The course enhances skills of those who have existing knowledge of construction drawings. CSU

CNST 108. Fundamentals of Construction Contracting (3)
Lec-3
P/NP available
Principles for managing a construction business, California Contractor Licensing Law, worker's compensation, construction bonds, labor code, employee relations, safety, construction contracts, scheduling, construction documents, plans, specifications, and the estimating process. CSU

CNST 109. Residential Wiring (4)
Lec-3, lab-3
P/NP Available
Repeat: max. 8 units
A beginning course in residential wiring. This hands-on course teaches the student the rules, methods and materials necessary to install a residential electrical system. CSU

CNST 110. Advanced Photovoltaic Installation (3)
Lec-3
P/NP Available
This course reviews the design, installation and maintenance of Solar Photovoltaic (PV) systems. It brings together the Electrical Code, electrical theory, PV system design and best practices, and prepares students to take the NABCEP PV Installer exam. CSU

CNST 111. Carpentry-Rough Framing (4)
Lec-3, lab-3
P/NP Available
Prereq.: CNST 69 and CNST 100 or CNST 1000
Repeat: max. 12 units
An introductory course in the methods and materials necessary to build a wood framed building. This course offers hands-on practice in the framing of simple floors, walls, ceilings, roofs, and stairways. CSU

CNST 112. Carpentry-Advanced Framing (4)
Lec-3, lab-3
P/NP Available
Prereq.: CNST 69; CNST 100 or CNST 1000 or TIXX 9704; and CNST 111 or CNST 1011 or TIXX 9708
Repeat: max. 12 units
An advanced course in the methods, materials and seismic requirements necessary to build a wood framed building. This course offers hands-on practice in the framing of more complicated floors, walls, ceilings, roofs, and stairways. CSU

CNST 113. Finish Carpentry (4)
Lec-3, lab-3
P/NP Available
Prereq.: CNST 69; CNST 100 or CNST 1000 or TIXX 9704
Repeat: max. 12 units
A course in the methods, materials, and installation techniques necessary the install windows, doors, stairs, siding, cabinets, and their respective trim. This course offers hands-on practice in the fine craftsmanship required for finish work. CSU
CNST 116. Furniture Making & Woodworking (3)
Lec-2, lab-4  P/NP Available  
Coreq.: CNST 69
Repeat: max. 9 units
Designed to prepare students for entry-level work or to upgrade their existing skills in wood working. Focuses on safety procedures, furniture design, hand and machine tools, materials identification and applications, fabrication processes, and project planning. CSU

CNST 117. Advanced Project Furniture Making (3)
Lec-2, lab-4  P/NP Available  
Prereq.: CNST 69; and CNST 116 or CNST 1016
Repeat: max. 9 units
This individualized project-based course is designed for advanced-level students in furniture making, incorporation the furtherance of those skills, (project planning, design, hand and machine tools, materials knowledge) acquired in the basic CNST 116 course. CSU

CNST 120A. Concrete in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  P/NP Available
Repeat: max. 1 unit
Introduction to the materials, tools and equipment used for concrete work in residential construction. Hands-on class on how to mix, form, pour and work with concrete, with instruction in the safe usage of hand and power tools. CSU
CNST 120A= ARCH 120A

CNST 120B. Rough Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  P/NP Available
Repeat: max. 1 unit
The basics of wood framing in residential construction for novices and trades people seeking cross over skills. A hands-on class that will demonstrate proper handling of tools and the appropriate use of fasteners in rough carpentry and the construction of small projects. CSU
CNST 120B= ARCH 120B

CNST 120C. Finish Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  P/NP Available
Repeat: max. 1 unit
Basic knowledge and skills in finish carpentry in residential construction. Identification of tools, building materials, and techniques required for finish carpentry. Demonstrate safe construction practices. Several projects requiring the planning and organizing of work, and the use of measuring, hand and power tools. CSU
CNST 120C= ARCH 120C

CNST 120D. Masonry and Tile in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  P/NP Available
Repeat: max. 1 unit
The basic skills for applying masonry and tile in residential construction, including practicing proper use of tools, materials, and techniques. Hands-on completion of several projects requiring planning and organizing is expected. CSU
CNST 120D= ARCH 120D

CNST 120F. Electrical in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  P/NP Available
Repeat: max. 1 unit
Introduction to the basic skills for electrical work in residential construction, including safety practices. Students will complete several small projects such as the rewiring of outlets, repair and replacement of light fixtures and the identification of circuits and connections found in residential construction. CSU
CNST 120F= ARCH 120F

CNST 120G. Installation of Gas Systems (0.5)
Lec-6, lab-12 (total hrs), field trips  P/NP Available
Repeat: max. 1 unit
Introduction to the installation and repair of gas systems. CSU

CNST 130. Residential Energy and Efficiency Measures (2)
Lec-1, lab-3  P/NP available
This introductory course provides a general overview of residential energy use. It briefly covers residential energy related systems and how building energy efficiencies may be improved. CSU
CNST 130= ENRG 130

Noncredit Courses:
CNST 1003. Residential Plumbing (105 hrs)
Advis.: CNST 69; and CNST 100 or CNST 1000
An introductory course in the methods and materials necessary to install a residential plumbing system. This course offers hands-on practice in the installation of supply, Drain/Waste/Vent (DWV), and gas systems.

CNST 1005. Electrical Code (105 hrs)
Advis.: CNST 109 or CNST 1009
An in depth coverage of the National Electrical Code, state and local codes. The course instructs the student on how to use the electrical code books and is essential towards the requirements for the California State Electricians Certificates and C-10 State Electrical Contractors License.

CNST 1011. Carpentry-Rough Framing (105 hrs)
Prereq.: CNST 69 and CNST 100 or CNST 1011
An introductory course in the methods and materials necessary to build a wood framed building. This course offers hands-on practice in the framing of simple floors, walls, ceilings, roofs, and stairways.

CNST 1012. Carpentry-Advanced Framing (105 hrs)
Prereq.: CNST 69; CNST 100 or CNST 1000 or TIXX 9704; and CNST 111 or CNST 1011 or TIXX 9708
An advanced course in the methods, materials and seismic requirements necessary to build a wood framed building. This course offers hands-on practice in the framing of more complicated floors, walls, ceilings, roofs, and stairways.

CNST 1013. Finish Carpentry (105 hrs)
Prereq.: CNST 69; CNST 100 or CNST 1000 or TIXX 9704
A course in the methods, materials, and installation techniques necessary the install windows, doors, stairs, siding, cabinets, and their respective trim. This course offers hands-on practice in the fine craftsmanship required for finish work.

CNST 1016. Furniture Making & Woodworking (105 hrs)
Coreq.: CNST 69
Designed to prepare students for entry-level work or to upgrade their existing skills in wood working. Focuses on safety procedures, furniture design, hand and machine tools, materials identification and applications, fabrication processes, and project planning.
CNST 1017. Advanced Project Furniture Making (105 hrs)
Prereq.: CNST 69; and CNST 116 or CNST 1016
This individualized project-based course is designed for advanced-level students in furniture making, incorporating the furtherance of those skills, (project planning, design, hand and machine tools, materials knowledge) acquired in the basic CNST 116 course.

Automotive Technology

TIAU 9510. Advanced Suspension, Alignment and Brakes (108 hrs)
Development of advanced skills in suspension alignment and brake systems. Emphasis is on theory and actual shop experience.

TIAU 9513. Basic Auto Maintenance (105 hrs)
Emphasis is on the proper operation, maintenance, and interdependence of the various units of the automobile. Includes the design and construction of the engine and the various systems of the automobile.

Construction

TIXX 9704. Introduction to the Construction Trades A (72 hrs)
Recommended for non-traditional and re-entry students
Basic knowledge and skills necessary in the construction trades. Identification of tools and building materials and how to handle them safely. Becoming acquainted with the variety of trades and apprenticeships in construction and with the roles of people on building projects and how the building team relies on project plans and specifications for information. Completion of several small projects in wood and concrete requiring use of measuring, hand, and power tools.

TIXX 9705. Introduction to the Construction Trades B (72 hrs)
Advisement: TRST 4601 or ESLN 3800; TIXX 9704
Recommended for non-traditional and re-entry students
Additional basic knowledge and skills necessary for the construction trades. Further identification of tools and building materials and how to handle them safely. Completion of several small projects in carpentry, electricity, plumbing, and sheet metal requiring use of measuring, hand, and power tools.

TIXX 9706. Introduction to the Construction Trades C (72 hrs)
Advisement: TRST 4601 or ESLN 3800; TIXX 9705
Recommended for non-traditional and re-entry students
Additional basic knowledge and skills for the construction trades. More identification of tools and building materials and their safe handling. The roles played by the people that build a project and how the team relies on project plans and specifications for information. Completion of several small carpentry, drywall, painting, and waterproofing projects using measuring, hand, and power tools.

TIXX 9707. Exterior and Interior Finishes (105 hrs)
Advisement: TRST 4601 or ESLN 3800
Introduction to the tools, materials, and processes used in finishing exterior and interior surfaces. Projects include installation, taping, and treatment of drywall; application of plaster, installation of flashing and roofing materials, installation of ceramic and resilient tile, and the selection and application of paint and related products. Also includes safe use of ladders, scaffolding, and personal safety equipment and how to read and interpret material safety data sheets.

TIXX 9708. Carpentry Framing (Rough) (105 hrs)
Skills and modern techniques to do framing construction to industry standards. Emphasis on blueprint reading; appropriate tools, machines, and equipment; and framing techniques for floors, walls, ceilings, and roofs. Light frame construction for pre-apprentices and/or do-it-yourself persons.

TIXX 9710. Contractor Licensing (105 hrs)
A course covering Contractors License Laws and Construction Management. Topics included are license qualification requirements, responsibility of the Contractors License State Board, labor code provisions related to employer and employee relationships, the California Occupational Safety and Health Act, and construction management.

Custodial

TICU 9550. Custodial Training (108 hrs)
Preparation for employment in the custodial field. Areas include floor care, custodial tools, equipment, methods, supplies, and custodial terminology.

TICU 9554. Basic Custodial Skills (48 hrs)
Basics of custodial cleaning skills. Foundation in the chemistry of cleaning, cleaning supplies, material and equipment, floor cleaning machine, mopping techniques, restroom care, dusting, wall washing, commercial office cleaning, work safety, union role in custodial industry.

Drafting

TIDR 9568. Blueprint Reading (Construction) (105 hrs)
Basic print reading of construction drawings. Includes print reading basics, materials and specifications; print reading; estimating; and symbols and abbreviations.

Electricity and Energy Conservation

TIEE 1009. Residential Wiring (105 hrs)
Advisement: TIXX 1000 or CNST 100
A beginning course in residential wiring. This hands-on course teaches the student the rules, methods and materials necessary to install a residential electrical system.

TIEE 9571. A.C. Electricity (108 hrs)
Prereq.: TIEE 9572/Assistant of Instructor
Review of basic electricity and Study of Alternating Current. Includes: fundamentals of Electromagnetism, Impedance, Inductance and Capacitance. Symbols, laws, diagrams, schematics mathematics and tools (including meters) will be used. Consists of Lectures, Demonstrations and Lab Exercises.

TIEE 9572. D.C. Electricity (108 hrs)
The study of basic Electricity. The difference between Direct Current and Alternating Current. The applications of D.C. Electricity in today's world.

TIEE 9574. Electrical Code and Construction Practices (105 hrs)
Requirements for State Licensed Contractors. Includes: electrical safety, vocabulary, terms, distributing electrical power, house ser
TIEE 9576. Electrical Applications in Construction (105 hrs)
Includes: electrical safety, vocabulary, terms, distributing electrical power, house service, house circuits, installing wiring, remodeling wiring, connection (hook-ups) for appliances and devices, application and procedures for permits.

TIXX 1000. Introduction to Construction (90 hrs)
Prereq.: Completion of or concurrent enrollment in CNST 69 or possession of OSHA 10 certificate
Advise: TIXX 1000 and VESL 3832
Overview of trades, design and management, occupations connected to building projects. Introduction to use of project documents, plans and specifications. Introduces relevant green technologies in the construction field. Practice in using measuring, hand and power tools.

TIXX 1002. Concrete Applications (105 hrs)
Prereq.: CNST 100 or TIXX 1000
Coreq.: CNST 69 or previous OSHA certification
This course is an introduction to the uses, design and installation of concrete elements in construction. Students will apply classroom theory to real outdoor lab building projects. This class enables students to apply what they've learned to other construction courses, as well as to engineering and architecture. Industry safety standards will be strongly emphasized.

TIXX 1007. Blueprint Reading (105 hrs)
Field trips
Advise: CNST 100 or TIXX 1000; Math E or ET 108A
Repeat: as needed
This course teaches the skills of blueprint reading and specifications. This course enhances skills of those who have existing knowledge of construction drawings.

TIXX 9505. Plumbing Applications (105 hrs)
Introduction to materials, tools and equipment used for installing a plumbing system. Interpretation of isometric drawings for installation of plumbing and piping systems. Understanding plumbing code requirements for installing Drain Waste Vent system, potable drinking water system, gas system and hot water heater. Maintenance and repair of plumbing fixtures, repair or replacement of pipe. Blueprint reading and reference to the Uniform Plumbing Code.

TIXX 9699. Furnituremaking and Woodworking (108 hrs)
Principles of wood fabrication, emphasizing furniture construction, hand tool and machine basics, shop safety, design, wood joinery and finishing for the beginning woodworker.

TIXX 9701. Hazardous Materials Training
The study of regulatory requirements, concepts, practices, tools and pieces of equipment for protecting workers from exposure to toxic substances and hazardous materials in general industry.

TIXX 9709. California and San Francisco Plumbing Code (105 hrs)
Field trips
Course will define the code requirements of the California and San Francisco Plumbing Code. History of water supply and distribution. Discuss the powers and duties of the Administrative Authority, inspection, testing and fees. Procedure for submitting plans and obtaining permits. Qualifications of a California license Plumbing Contractor. Discuss the terminology of trade. General regulations for installation of a safe plumbing system. Interpret blueprints and isometric drawings.

Biological Sciences
Office: Science 304
Phone Number: (415) 239-3645
Web Site: www.ccsf.edu/biology
(For courses and programs in Biotechnology, see Engineering and Technology.)

Learning Outcomes
Biological Sciences students will develop an understanding of major biological concepts and awareness of how these are connected within various areas of the biological and physical sciences. Furthermore, students completing the CCSF Biological Sciences major will be prepared for upper division biology courses and for transfer to a baccalaureate major in Biology at a four-year college through their completion of courses that are both transferable and fulfill the lower division course requirements. In addition, students will acquire the problem solving, analytical, scientific inquiry and communication skills that will provide the foundation for lifelong learning and career development, as well as an appreciation of science as an integral part of society and everyday life.

Biological Sciences Major (AS)

CCSF's Biological Sciences major offers basic courses in chemistry and biology to serve students with diverse goals, including transfer to biology programs at U.C., C.S.U. or other four-year institutions. Biological Sciences majors will be able to take most or all of their lower division courses at CCSF before they transfer, but should see a counselor to confirm their program of study. Additional courses might be required to transfer to particular institutions. The Biological Sciences major is suitable for students planning to transfer into programs in the biological sciences, including general biology, cell or molecular biology, organism biology, marine biology, botany, zoology, ecology, evolution, genetics, anatomy, physiology, microbiology, and agricultural sciences. The major is also designed for students planning to transfer into a pre-medical, pre-veterinary, pre-dental, pharmacy, or chiropractic degree program.

Through the core forty-four units of the Biological Sciences major, students will gain the scientific knowledge necessary to investigate problems and ideas presented in upper division biology courses, as well as to critically evaluate scientific information. The laboratory work will train students to use current laboratory technologies, equipment and techniques to engage in the research process using scientific methods and to investigate research questions safely.

Courses Required for the Major in Biological Sciences

Course Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 100A General Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIO 100B General Biology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101A General College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101B General College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 208A Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 208B Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110A Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110B Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 2A Introductory Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYC 2AL Introductory Physics Lab</td>
<td>1</td>
</tr>
</tbody>
</table>
Obtain the most accurate transfer information.

Particular upper division institutions and programs might require additional lower-division course work. Therefore, it is strongly recommended that students contact a transfer counselor at CCSF and the appropriate department at the upper division institution in order to obtain the most accurate transfer information.

**Biological Sciences Certificate**

**Courses Required for the Certificate of Achievement in Biological Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 100A General Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIO 100B General Biology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101A General College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101B General College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 208A Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 208B Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110A Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110B Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 2A Introductory Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYC 2AL Introductory Physics Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYC 2B Introductory Physics</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>44</td>
</tr>
</tbody>
</table>

**Environmental Studies and Science Major (AS)**

CCSF’s Environmental Studies and Science Major offers basic courses in chemistry, biology, and environmental studies with elective courses in ecology, conservation, and environmental policy. These fundamental courses will serve students with diverse goals including transfer to University of California (UC), California State University (CSU), or other four-year institutions and with interests in either scientific or social science research fields and careers. Environmental Studies and Science majors will be able to take most or all of their lower division preparation at CCSF before they transfer but should meet with a counselor to confirm their program of study.

Through the core twenty-two units of the Environmental Studies and Science Major, students will gain an understanding of the process of science, its importance in understanding human impacts on the environment, and be able to critically evaluate both the scientific evidence and sociopolitical aspects of environmental and natural resources problems, their causes, and proposed solutions. The Ecology and Conservation concentration requires a minimum of four units focusing on plant-animal interactions and hands-on laboratory and field investigations. The Environmental Studies Concentration requires a minimum of four units focusing on human interactions with the environment and its implications for human welfare and sustainability.

Option 1: Concentration in Ecology and Conservation
Option 2: Concentration in Environmental Studies

**Courses Required for the Major in Environmental Studies and Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 31 Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 101A General College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>BIO 100A General Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIO 100B General Biology</td>
<td>5</td>
</tr>
</tbody>
</table>

**Option 1: Environmental Studies and Science, Concentration in Ecology and Conservation**

**Elective Coursework:** One of the following course combinations (4 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 20 Introduction to Ecology</td>
<td>3</td>
</tr>
<tr>
<td>with BIO 41L Ecology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIO 40 Plants and Animals of California</td>
<td>3</td>
</tr>
<tr>
<td>with BIO 41L Ecology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIO 40 Plants and Animals of California</td>
<td>3</td>
</tr>
<tr>
<td>with BIO 26 Habitats Restoration Field Studies</td>
<td>1</td>
</tr>
<tr>
<td>BIO 32 Marine Biology</td>
<td>3</td>
</tr>
<tr>
<td>with BIO 32L Marine Biology Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

**Option 2: Environmental Studies and Science, Concentration in Environmental Studies**

**Elective Coursework:** One of the following course combinations (4 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 30 Ecology and Human Environment</td>
<td>3</td>
</tr>
<tr>
<td>with BIO 41L Ecology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>POLS 22 Environmental Politics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>with BIO 25 Ecology of San Francisco</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units**

| Total Units | 22 |

**Announcements of Courses**

**Credit, Degree Applicable Courses:**

**Anatomy**

ANAT 14. Introduction to Human Anatomy and Physiology (4)
Lec-3, lab-3, field trips
Not open to students who have completed ANAT 25 or PHYS 1 or PHYS 12 with a C or higher
An integrated course covering the fundamental principles of human anatomy and physiology. CSU/UC

ANAT 25. General Human Anatomy (4)
Lec-3, lab-3
P/NP available
Study of the gross and microscopic structure of the human body. CSU/UC

ANAT 26. Sectional Anatomy (1)
Lab-3
Prerequisite: Completion/concurrent enrollment in ANAT 25
Study of the gross structure of the human body according to region as visualized in cross sections and sagittal sections. CSU

**Anthropology**

ANTH 1. Biological Anthropology (3)
P/NP available
The biological nature of humans and the changes that have occurred from prehistoric times to the present. The place of humans in nature, vertebrate and primate evolution, fossil evidence for human antiquity, individual and population genetics, mechanisms of evolution, and human variation. CSU/UC
BIO 9. Human Biology (4)
Lec-3, lab-3
Advise: ESL 140 (or placement in ESL 150), or ENGL 90 (or placement in ENGL 92)
An introduction to scientific and biological principles through the study of humans as exemplary organisms. Lectures and laboratory exercises will examine the structure and functions of the human body and other organisms in relation to health and disease, genetics, biotechnology, evolution, and current scientific issues. CSU/UC

BIO 11. Introduction to the Science of Living Organisms (4)
Lec-3, lab-3, field trips P/NP available
Not open to students who have taken BIO 100A or 100B
Introductory level lecture and laboratory course covering the major fundamental concepts required for understanding biological processes, organismic structure and function, and an introduction to the principles of biotechnology. CSU/UC

BIO 15. The Biology of HIV (3)
Lec-3, field trips P/NP available
A survey of the biology of human immunodeficiency virus (HIV) and AIDS. The course provides the biological basis for HIV/AIDS origins & emergence; transmission and epidemiology; retrovirus structure and replication; interaction of HIV with the immune system and disease progression; HIV testing; current treatment, vaccine and prevention strategies. CSU/UC

BIO 16. Studying the Biological Sciences (1)
Lec-2, field trips P/NP only
An in-depth orientation to the academic life and culture of transfer biology majors. Students will acquire concepts, skills and information necessary for making a successful transition to upper division biology programs at four-year institutions, and for choosing professional careers in science. CSU/UC

BIO 20. Introduction to Ecology (3)
Lec-3, field trips
Advise: ENGL 92 or ESL 150 or placement in ENGL 93 or 94; or ESL 160
Not open to students who have completed BIO 20A.
Ecological principles and methods. Introduction to population, community, and ecosystem ecology. Analysis of the interrelationships between organisms and their environments. Investigation of terrestrial, freshwater, and marine environments. CSU/UC

BIO 21. Natural History of California (2) Weekend
Lec-1, lab-3, field trips P/NP available
A series of field trips to specific California ecosystems. Emphasis on the general concepts of ecosystem analysis and the interaction of climate, physiography, and biotic factors in shaping varied habitats within California. CSU

BIO 22. Natural History of the Sierra Nevada (1)
Lec-1, field trips P/NP available
An examination of the geology, biology, and human history of the Sierra Nevada from Lake Tahoe basin to high altitude. A study of the interrelationships of plants, animals, and humans at high elevation. CSU

BIO 23. Ecology of Mendocino (1)
Lec-1, lab-3, field trips P/NP available
Not open to students who have completed BIO 81, Selected Topic: Ecology of Mendocino.
An examination of the geology, biology and human history of Mendocino County. A study of the interrelationships of plants, animals and humans within the forests and coastal regions of Northern California. CSU

BIO 24. Ecology of Point Reyes (1)
Lec-1, lab-3, field trips P/NP available
Not open to students who have completed BIO 81, Selected Topic: Ecology of Point Reyes.
An examination of the geology, biology and human history of Point Reyes National Seashore. A study of the interrelationships of plants, animals and humans within the forests, grasslands and coastal regions of the park. CSU

BIO 25. Ecology of San Francisco Bay (1)
Lec-1, lab-3, field trips P/NP available
An examination of the geology, biology, chemistry, and human history of San Francisco Bay. An analysis of the interrelationships of plants, animals, and humans within the diverse ecosystems which comprise the San Francisco Bay. Investigation of the terrestrial, freshwater and marine environments. CSU

BIO 26. Habitat Restoration Field Studies (1)
Lec-1, field trips P/NP available
A biology field class that examines the principles of habitat restoration and environmental rehabilitation. CSU

BIO 28. Ecology of the Golden Gate National Recreation Area (1)
Lec-1, field trips P/NP available
An ecology field class that examines the geology, biology, ecology and human history of the Golden Gate National Recreation Area. CSU

BIO 29. Scientific Illustration (1)
Lec-1, field trips P/NP available
Repeat: max. 3 units
A natural history course in recording and illustrating ecological and behavioral observations in a scientific field journal. Course format consists of an on-campus orientation session followed by in-depth Saturday field trips to various natural habitats in the San Francisco Bay Area. CSU

BIO 30. Ecology and the Human Environment (3)
Lec-3, field trips
Not open to students who have completed BIO 20B.
Examination of the human environment with emphasis on the causes of human-made pollution, health effects, and possible solutions. CSU/UC

BIO 31. Introduction to Environmental Science (3)
Lec-3, field trips P/NP available
Prereq: ENGL 92 or higher
An examination of the scientific and research evidence regarding the causes, consequences, and proposed solutions to environmental and natural resource issues. Study of sustainability and potential solutions from different academic fields including the natural sciences, social sciences and engineering. CSU/UC
BIO 32. Marine Biology (3)
Lec-3, field trips P/NP available
The natural history of California marine plants and animals with emphasis on the interrelationships between marine life and their environment. CSU/UC
BIO 32 = IDST 9

BIO 32L. Marine Biology Laboratory (1)
Lab-3, field trips P/NP available
Coreq.: BIO 32 or IDST 9
A laboratory course, utilizing a laboratory/field trip format, designed to reinforce and augment the student's understanding of basic principles of marine biology as taught in BIO 32/IDST 9. CSU/UC

BIO 35. Biological Field Monitoring (3)
Lec-3 P/NP available
An overview of the theories and practices of field monitoring, as well as its practical applications to ecological research. CSU

BIO 40. Plants and Animals of California (3)
Lec-3, field trips P/NP available
Advis: ENGL 92 or ESL 150 or Placement in ENGL 93 or 94; or ESL 160
Analysis of California's natural geographic, biologic and geologic regions. Examination of basic concepts of ecology, geology, and evolution as they relate to the distribution of plants and animals. Study of plants and animals and their unique adaptations to the diverse natural regions of California. Assessment of environmental issues resulting from human impact and evaluation of protective strategies. CSU/UC

BIO 41L. Ecology Laboratory (1)
Lab-3, field trips
Prereq.: Completion or concurrent enrollment in BIO 20 or 40
Advis: ENGL 92 or ESL 150 or Placement in ENGL 93 or 94; or ESL 160
A laboratory course examining the fundamental concepts of ecology and applying these concepts to field observations and experiments. The course will focus on understanding biodiversity and factors influencing the abundance and distribution of living organisms in California and is designed to augment the student's understanding of concepts taught in Biology 20 and Biology 40. CSU/UC

BIO 55. Bioethics (3)
Lec-3 P/NP available
Ethical principles will be applied to scientific work and to the emergence of new technologies. Principles to be considered include: professional conduct among scientists, the role of governmental regulation, individual choice, safety, and the rationale for particular areas of research. Attention will be given to genetic engineering of humans and other organisms, cloning, race, stem cells, pesticide use, and other areas of science. CSU/UC

BIO 70. Selected Topics in Biology (1, 2, 3)
Lec-1,2,3, lab 1,2,3, field trips P/NP available
Investigation in depth of selected topics in biology: considering current issues and innovations; expanding subjects covered briefly in introductory courses; or exploring topics not studied in depth in other classes in biology.

BIO 70A. Selected Topics in Biology: Botanical Illustration (1)
CSU/UC

BIO 70B. Selected Topics in Biology: Bird Illustration (1) CSU/UC

BIO 80. Selected Topics in Ecology (1, 2, 3)
Lec-1,2,3, lab 1,2,3, field trips P/NP available
Investigation in depth of selected topics in ecology: considering current issues and innovations; expanding subjects covered briefly in introductory courses; exploring topics not studied in depth in other classes in biology; or field studies that provide hands-on experiences that demonstrate the ecological principles being studied. Topics and places will vary for topical courses and the alphabetical sequence is not meant to imply that the set of topical courses are to be taken in sequence. CSU

BIO 80C. Topics in Biology-Agroecology (1) CSU

BIO 81A. Ecology of San Francisco (1)
Lec-1, field trips
Advis: ENGLISH 92 or ESL 150
Repeat: 2 units max.
An examination of abiotic and biotic factors shaping nature in San Francisco. An analysis of plant, animal, and human interactions within the diverse habitat types over time. CSU

BIO 83A. Natural History of Australia (3)
Lec-3, field trips
An examination of the natural history and ecology of Australia, including its geology, ecosystems, zoogeography, evolution, and conservation. An analysis of the interrelationships of weather, soil, water, fire, wildlife, and humans in the subtropical rainforests, temperate woodlands, outback deserts, freshwater habitats, coastal wetlands, and coral reefs. CSU

BIO 83B. Natural History of East Africa (3)
Lec-3, field trips
An examination of the natural history and ecology of East Africa, including its geology, ecosystems, phytogeography, zoogeography, evolution, and conservation. An analysis of the interrelationships of weather, soil, water, fire, wildlife, and humans in the vast Serengeti ecosystem which includes Tanzania's Serengeti National Park, Lake Manyara Park, Ngorongoro Crater, Tarangire National Park, Olduvai Gorge and Mount Kilimanjaro. CSU

BIO 90. Biology Laboratory (0)
Lab-var
An open laboratory in which students may complete an assignment. CSU

BIO 91. On-Campus Biology Work Experience (1-8)
Work-5,10,15,20, 25, 30, 35, 40 field trips P/NP available
Prereq: Consent of Biology Instructor Required
Repeat: max. 16 units, BIO 91 & 92 combined
On campus college work experience in a project in the fields of biology, ecology or environmental science subject to the approval and under the supervision of a biology department instructor. CSU

BIO 92. Off-Campus Biology Work Experience (1-8)
Work-5,10,15,20, 25, 30, 35, 40 field trips P/NP available
Prereq: Consent of Biology Instructor Required
Repeat: max. 16 units, BIO 91 & 92 combined
Off campus college work experience with a community partner in the fields of biology, ecology or environmental science, subject to approval of and under the supervision of a biology department instructor. CSU
BIO 100A. General Biology (5)
Lec-3, conf-2, lab-4  
Prereq.: CHEM 101A; or demo of the exit skills of both BIO 11 and CHEM 101A  
Advise: ENGL 93  
A general introduction to cell structure and function, cell biochemistry, cell cycle, principles of molecular and organismal genetics, genetic engineering, and animal form and function. Intended for students majoring in the biological sciences, but open to all qualified students. CSU/UC  

BIO 100B. General Biology (5)
Lec-3, conf-2, lab-4  
Prereq.: BIO 100A or demo of the exit skills of BIO 100A  
A general introduction to evolution, the diversity of life, plant form and function, and ecology. Intended for students majoring in the biological sciences, but open to all qualified students. CSU/UC  

BIO 223. Introduction to Environmental Monitoring (1)
Lec-0.5, lab-1.5, field trips P/NP available  
Study of regulations, protocol and procedures for collection and storage of air, soil and liquid samples. Quality assurance/quality control, safety, site selection, sample storage and preservation. Practical experience includes use of portable instruments and immunoassay kits for chemical contaminants. Microbiological laboratory techniques for analysis of soil and water samples. CSU  
BTEC 223 = BIO 223  

Botany

BOT 10. Plant Biology (4)
Lec-3, lab-3, field trips P/NP available  
Emphasis on the structure, metabolism, life history, and evolutionary relationships of the major groups of plants. Lectures on plant ecology, world vegetation types, and commercial uses of plants. CSU/UC  

Ecology

ECOL 20. Introduction to Ecology (4)
Lec-3, lab-3, field trips  
Fundamental concepts of ecology, field observations and experiments applying the scientific method; chemical and energy cycles; effect of physical and biological environment on community structure; diversity and distribution; population dynamics and interspecific reactions; biodiversity of the genetic, species, and ecosystems level and relevant social ecological problems. CSU/UC  

Genetics

GEN 10. Heredity and Evolution (3)
Lec-3 P/NP available  
A general survey of the basic principles of organic evolution. Classical and population genetics, molecular genetics, chromosomal aberrations, variation, natural selection, adaptive radiation, theories of the origin of life. CSU/UC  

GEN 11. Genetics Laboratory (1)
Lab-3, field trips P/NP available  
Prereq.: Completion/concurrent enrollment in GEN 10 or 15  
Hands-on laboratory techniques and experiments to illustrate classical and modern molecular genetics including the use of DNA in forensics, cloning genes, and genome analysis. CSU/UC  

GEN 15. Human Genetics (3)
Lec-3 P/NP available  
Basic principles of human genetics. Genetics in development, health and behavior. Family and population genetics. Effects of mutation, assortive mating, and reproductive rates upon gene distribution. Problems anticipated from projected advances in "human engineering." CSU/UC  

Microbiology

M B 10. Emerging Diseases (3)
Lec-3, field trips P/NP available  
A general education course emphasizing the microbiology, epidemiology and ecology of selected infectious disease agents that threaten human and animal welfare around the globe. It analyzes the influences of social and biological factors on the emergence of new diseases as well as the re-emergence of ancient plagues. CSU/UC  

M B 12. Introduction to Microbiology (4)
Lec-3, lab-4, field trips P/NP available  
Prereq.: CHEM 32 or CHEM 101A or an equivalent course.  
An introductory microbiology course, surveying eukaryotic, viral, and bacterial microbes. The course will cover six themes: a) Microbial cell biology; b) Microbial genetics; c) Human-microbe interactions; d) Microbial ecology; e) Microbial evolution and diversity; and f) Historical development of microbiology. Additionally, students will learn laboratory skills essential to microbiology, which will develop problem-solving skills. CSU/UC  

M B 51. Sanitation Principles and Practices (1)
Lec-1 P/NP available  
Principles of buying, storing, preparing, and serving food to insure the safety of food for human consumption; the importance and practice of sanitary habits by food service personnel; causes of food poisoning and food spoilage; the principles and practices of public health and food service managerial procedures to insure sanitary food for the public; public health laws. CSU  

Nutrition

NUTR 12. Introduction to Nutrition (3)
Lec-3 P/NP available  
The nature and physiological roles of the dietary nutrients, their food sources and requirements. Relation of diet to health and disease, evaluation of dietary adequacy. Examination of current issues and controversies in nutrition. CSU/UC  

NUTR 51. Nutrition and Culinary Arts (2)
Lec-2, field trips P/NP available  
Not open to student who have completed NUTR 12 or NUTR 52  
Nutrition and food concepts relevant to students in the Culinary Arts and Hospitality Management Programs. Review properties of nutrients, common metabolic and digestive problems and the required diet modifications and treatment. CSU  

NUTR 52. Elementary Nutrition (3)
Lec-3, field trips P/NP available  
Not open to students who have completed NUTR 12 or NUTR 51  
Emphasis on the practical application of nutrition to everyday life such as planning a healthy diet, assessing one's nutritional food intake, understanding nutritional labels and useful sources for nutrition information. Scientific principles behind the development of Dietary Reference Intakes (DRIs) and Food Guidelines. CSU/UC
Physiology

PHYS 1. Introductory Human Physiology (5)
Lec-3, lab-6
Prereq.: CHEM 32 or 101A
A course in systems physiology with an emphasis on the quantitative aspects of cellular and molecular mechanisms contributing to homeostasis of the human organism. This course is intended for students transferring to four-year institutions and for those entering graduate-level professional allied health programs. CSU/UC

PHYS 12. Introduction to Human Physiology (4)
Lec-3, lab-3
Prereq.: CHEM 32 or 101A
Not open to students who have completed PHYS 1
A course in general human physiology which stresses the normal function of the human body, including the physiology of cells, muscles, the nervous system, sensation, digestion, circulation, respiration, metabolism, excretion, endocrines, and reproduction. This course is intended for students entering nursing and other allied health fields. CSU/UC

PHYS 67. Exploring Neuroscience: An Introduction to the Brain (3)
Lec-3, field trips
Advise: ENGL 93 or ESL 160
Designed to expose students to topical questions in the field of neuroscience, this course will investigate cellular communication, simple reflexes, complex neural networks and complex behaviors such as consciousness, coordinated movement, emotions, motivation, and memory. This course is intended for all students interested in understanding the science behind the brain. CSU/UC

Zoology

ZOOL 10. Animal Biology (4)
Lec-3, lab-3, field trips
ZOOL 10 is designed for students not specializing in biology, zoology, botany, or the medical sciences and is not open for credit to students who have taken BIO 100A, 100B, 11, or PHYS 1
A survey of the biology, ecology and evolution of animals, including both invertebrates and vertebrates. CSU/UC

Broadcast Electronic Media Arts

Office: Art X 160
Phone Number: (415) 239-3527
Web Site: www.ccsf.edu/broadcast

Announcement of Curricula

General Information
The Broadcast Electronic Media Arts department prepares students for university transfer and provides lifelong learners and degree holders the opportunity to upgrade workplace skills and prepare for career transition. Graduates either transfer to a university or seek employment in radio, television, video production, cable, broadcast news, advertising, public relations, sound reinforcement, music recording, interactive media, corporate, and industrial media production.

Program Emphasis. The department offers instruction in the design and creation of content for the electronic media with focus on writing, storytelling, teamwork, leadership, production craft skills, and emerging technologies. Media literacy is emphasized throughout the curriculum.

Admission. Enrollment is open to all interested students. Please note that some classes have prerequisites, corequisites, and advisories.

Work Experience and Internships. Students enrolled in Broadcast Electronic Media Arts classes refine skills in an in-house internship program which provides the College with media services, video production services, programming for education access television, and support for the college public relations office. After basic production craft skills are mastered, students are supported in internships at industry sites such as radio stations, television stations, video production houses, sound recording studios, and emerging media companies.

Transfer Information. All Broadcast Electronic Media Arts courses are credit and degree applicable, and selected courses transfer to the CSU and/or UC systems. Students are encouraged to work with a college counselor and a department program advisor to establish an education plan during the first semester of study. For additional information consult the “Transfer Information” section of this catalog.

Facilities and Equipment. Broadcast Electronic Media Arts facilities have undergone extensive upgrades which include installation of a digital video editing lab, digital audio production lab, hybrid sound recording studio, two digital teleproduction studios, and a digital cable FM radio station. San Francisco’s Educational Access Television Channel 27 and Channel 75 cablecast citywide from the department’s facilities.

Additional Information. Consult the Department Chair for more information at (415) 239-3527.

The Broadcast Electronic Media Arts certificate program is recommended for those seeking to acquire entry-level skills, or upgrade and retool skills, and for lifelong learners preparing for career transition. The department offers nine certificate programs: 1) Broadcast Journalism, 2) Broadcast Motion Graphics, 3) Digital Radio, 4) Live Sound, 5) Sound Design, 6) Sound Recording, 7) Television Production, 8) Video Post-Production, and 9) Video Production and Editing. Each course sequence is designed to provide students with an opportunity to develop and refine essential workforce skills for entry-level employment in the electronic media industry.

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Broadcast Electronic Media Arts by completing each course in their program of study with a final grade of C or higher.

Broadcast Journalism Certificate

This certificate provides students with news research, writing, reporting, and packaging skills for entry-level employment in radio, television, cable, syndicated, Internet, and satellite news organizations. The Broadcast Journalism certificate is recommended for degree holders seeking to upgrade skills for career transition.

Courses Required for the Certificate of Accomplishment in Broadcast Journalism

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCST 100 Intro to BCST Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>BCST 115 Announcing and Performance</td>
<td>3</td>
</tr>
<tr>
<td>BCST 113 Broadcast Journalism</td>
<td>3</td>
</tr>
<tr>
<td>BCST 112 Investigative Reporting</td>
<td>3</td>
</tr>
<tr>
<td>BCST 130 Radio News and Public Affairs</td>
<td>3</td>
</tr>
<tr>
<td>BCST 165A or B Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
</tr>
</tbody>
</table>
**Broadcast Motion Graphics Certificate**

This certificate provides instruction in video editing and the production of motion graphic and digital video effects for broadcast and independent programming. Students completing this program will be qualified for entry-level employment in video production for television, advertising, public relations, education, music, theater, film, entrepreneurial projects and media departments of agencies, businesses, and institutions.

Upon completion of this certificate, students will be able to:

- Analyze, plan, edit, and manage the creative and technical elements of broadcast motion graphics and video editing work flows through the postproduction stages.
- Work in a variety of areas within the context of postproduction, including and motion graphic design assistant, postproduction assistant, assistant editor.
- Apply knowledge of digital audio/video formats and file types, efficiently manage logging and capturing and/or transferring of video material.
- Identify the key story focus, primary audience, purpose and goals and employ a variety of visual techniques appropriate to content and genre.

Students must complete each course with a grade of C or higher.

All courses must be taken within the last four years.

**Courses Required for the Certificate of Accomplishment in Broadcast Motion Graphics**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 140 Studio Video Production</td>
<td>3</td>
</tr>
<tr>
<td>or BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>BCST 143 Digital Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>or BCST 144 Digital Video Editing-Final Cut Pro</td>
<td>3</td>
</tr>
<tr>
<td>BCST 160A College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or BCST 165A Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>BCST 146 Digital Video Effects</td>
<td>3</td>
</tr>
<tr>
<td>BCST 148 HD TV Studio Production</td>
<td>3</td>
</tr>
<tr>
<td>or BCST 149 HD TV Field Production</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**Recommended Additional Coursework:** GRPH 53A, GRPH 98A, GRPH 100

**Digital Radio Certificate**

This certificate provides students with practical production and performance craft skills for entry-level employment in contemporary radio.

**Courses Required for the Certificate of Accomplishment in Digital Radio**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>BCST 100 Intro to BCST Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 120 Audio Production</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>Choose one of the following three options:</td>
<td></td>
</tr>
<tr>
<td>Option #1: News</td>
<td></td>
</tr>
<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>BCST 130 Radio News and Public Affairs</td>
<td>3</td>
</tr>
<tr>
<td>BCST 160A or B or C College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or BCST 165A or B Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**OR**

**Option #2: Performance**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCST 115 Announcing and Performance</td>
<td>3</td>
</tr>
<tr>
<td>BCST 131 Radio Production and Performance</td>
<td>3</td>
</tr>
<tr>
<td>BCST 160A or B or C College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or BCST 165A or B Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**OR**

**Option #3: Programming**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCST 133 Digital Radio Programming</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>BCST 160A or B or C College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or BCST 165A or B Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**Live Sound Certificate**

This certificate provides students with a foundation in the application of live sound in various acoustic spaces. Students learn how to operate and troubleshoot live sound production equipment and are prepared for entry level work doing live sound for theaters, nightclubs, concert halls, sporting events, conferences, conventions, presentations, and live sound distribution via broadcast, cable, wireless, mobile devices and emerging media.

Upon completion of this certificate, students will be able to:

- Plan and execute the sound reinforcement set-up for vocals, acoustic and electronic instruments including but not limited to drums/percussion, strings, woodwinds, and brass using microphone and line level device in both analog and digital formats.
- Configure public address (PA) system for various sized spaces and audience numbers and demonstrate proper placement and distribution of speakers.
- Identify and troubleshoot acoustics of various sized spaces with regard to microphone pick-up and speaker placement.
- Utilize equalization techniques to remedy any problems with acoustics.
- Plan and configure multi-track recorder and video camera for live event recording.
- Display professionalism and understanding of workforce protocol in communication and behavior.

Students must complete each course with a grade of “C” or higher.

All courses must be taken within the last four years.

**Courses Required for the Certificate of Accomplishment in Live Sound**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 120 Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>BCST 124 Digital Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 128 Sound Reinforcement</td>
<td>3</td>
</tr>
</tbody>
</table>
Students must complete each course with a grade of "C" or higher.

radio production facilities, or audio post-production facilities.
reinforcement companies, mobile on-site music recording companies,
are prepared for entry-level positions at recording studios, sound
mixing and mastering by participating in recording sessions. Students
exposure to production processes such as tracking, overdubbing,
ment used in recording commercial music. Courses include hands-on
Students learn recording techniques and how to operate the equip-

Sound Design Certificate
This certificate combines the study of audio theory and sound design
as used in relation to video, TV, film, radio, video games and multi-
media productions. Students learn recording and editing techniques
and apply them to the equipment used in audio production facilities
and location sound systems. Students who complete this certificate are
prepared for entry-level positions in facilities specializing in video and
film production, television, radio production, advertising, and theater.

Upon completion of this certificate, students will be able to:

- Analyze the visual media and assess the sound post-production
  needs including, dialog, sound-effects and music.
- Perform effective spotting sessions for useable and un-useable
dialog, usable and missing sound effects, and music cues.
- Engineer and perform Foley and ADR recording sessions.
- Edit, sweeten and place sync dialog and ADR dialog in sync
  with picture.
- Edit, create, record, sweeten and place sync sound effects, Foley
  sound effects and library sound effects in sync to picture.
- Operate a digital audio workstation to edit, signal process,
sweeten, arrange and mix-down the D-M-E audio in sync to
  picture.
- Demonstrate an understanding of the various sound formats for
  mixing sound to picture.
- Perform effectively in a team including explaining expectations,
deleagating and communicating deadlines and quality of work.

Students must complete each course with a grade of "C" or higher.

Students must complete 4 of 6 courses at City College of San Francisco.
All courses must be taken within the last four years.

Courses Required for the Certificate of Accomplishment
in Sound Recording

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 120 Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 124 Digital Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 126 Sound for Visual Media</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 2 units from the following:
BCST 160A, B or C College Internship          2
or BCST 165A or B Industry Internship         2

Total Units                                17

Sound Recording Certificate
Students learn recording techniques and how to operate the equip-
ment used in recording commercial music. Courses include hands-on
exposure to production processes such as tracking, overdubbing,
mixing and mastering by participating in recording sessions. Students
are prepared for entry-level positions at recording studios, sound
reinforcement companies, mobile on-site music recording companies,
radio production facilities, or audio post-production facilities.

Courses Required for the Certificate of Accomplishment
in Sound Recording

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 120 Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 124 Digital Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 125 Sound Recording Studio</td>
<td>4</td>
</tr>
<tr>
<td>BCST 160A or B or C College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or BCST 165A or B Industry Internship</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Units                                17

Television Production Certificate
This certificate provides basic video production skills including
instruction in preproduction planning, audio and video production
competency, program completion and distribution via broadcast, tape,
disc and the Internet. Students completing this certificate program
will be qualified for entry-level employment in video production for
television, advertising, public relations, multimedia, education, music,
theater, film, entrepreneurial projects and media departments of agen-
cies, businesses, and institutions.

Upon completion of this certificate, students will be able to:

- Plan, implement, and manage the aesthetic and technical ele-
ments of TV studio and video field production through the
preproduction, production, and delivery stages.
- Work in a variety of areas within the context of a television
studio and field production, including producing, directing,
floor manager, camera, lighting, switcher, character generator,
teleprompter and audio control.
- Produce and direct a short video production.
- Demonstrate the knowledge of major audio-visual script
formats as well as a familiarity with the basic vocabulary of vid-
egraphy including basic shots, angles, editing transitions, and
camera movements.
- Apply basic photographic principles as F-stops, depth of field,
and focal length and be able to use these principles creatively in
their own productions.
- Display professionalism and understanding of workforce proto-
col of communication and behavior.

Students must complete each course with a grade of C or higher.

Students must complete 4 of 6 courses at City College of San Francisco.
All courses must be taken within the last four years.

Courses Required for the Certificate of Accomplishment
in Television Production

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 140 Studio Video Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>BCST 148 HD TV Studio Production</td>
<td>3</td>
</tr>
<tr>
<td>or BCST 149 HD TV Field Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 160A College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or BCST 165A Industry Internship</td>
<td>2</td>
</tr>
</tbody>
</table>

Total                                 17
Recommended Additional Coursework: BCST 115, 120, BCST 143 and BCST 144

**Video Post-Production Certificate**

This certificate provides instruction in video editing, managing post-production tasks and distribution of video programs via broadcast, tape, disc and the Internet. Students completing this certificate program will be qualified for entry-level employment in video production for television, advertising, public relations, multimedia, education, music, theater, film, entrepreneurial projects and media departments of agencies, businesses, and institutions.

Upon completion of this certificate, students will be able to:

- Plan, edit, and manage the aesthetic and technical elements of video programs through the preproduction, production, and postproduction stages in the context of video editing and finishing.
- Work in a variety of areas within the context of postproduction, including video editor, assistant editor and postproduction management assistant.
- Demonstrate knowledge of current digital audio and video file types and formats.
- Apply a variety of video editing techniques related to content; efficiently manage logging and capturing/transferring video media; identify the key story focus, primary audience, purpose and goals.
- Demonstrate knowledge and the ability to finish a video program using color correction, audio finishing and simple motion graphic techniques.
- Display professionalism and understanding of workforce protocol of communication and behavior.

Students must complete each course with a grade of C or higher.

Students must complete 4 of 6 courses at City College of San Francisco. All courses must be taken within the last four years.

**Courses Required for the Certificate of Accomplishment in Video Production and Editing**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td>BCST 100 Intro to BCST Electronic Media ..........</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BCST 119 Digital Media Skills ..................</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BCST 140 Studio Video Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td>BCST 110 Writing for Broadcast Electronic Media ........</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BCST 143 Digital Video Editing ..................</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BCST 165A or B Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**Multimedia Rich Media Production**

See page 277.

### Announcement of Courses

Students enrolled in Broadcast Electronic Media Arts lecture and laboratory courses may be required to purchase additional materials. Students may be charged a materials use fee.

**Credit, Degree Applicable Courses:**

BCST 100. Introduction to Electronic Media (3)

Lec-3

**Advising:** ENGL 93 or 94 or placement in ENGL 96

Development and impact of radio, television, cable, satellite, internet, and new media technologies as social, vocational, economic, and political forces in American society. The emphasis of this course is on broadcast history, organization, operation, occupation, programming, political development, regulation, and business practices. CSU

BCST 101. Media Literacy (3)

Lec-3

**Advising:** SPCH 1A or 11

Critical analysis of structure, economics, aesthetics, language, and technical aspects of radio, television, cable, and satellite programming. Methods of interpreting the visual and oral messages present in news, entertainment, and advertising. Impact of emerging technologies on program content and form. CSU

BCST 102. New Media: Navigating the Information Age (3)

Lec-3

**Advising:** BCST 103. Mass Media and Society (3)

Lec-3

A general interest course covering the history, organization and social role of major mass communication media, such as radio, television, motion pictures, print, recording industries, multimedia, the Internet, and the World Wide Web. Basic theory of communication and communication research. Emphasis on the influence of mass media on the individual and society. CSU/UC

**Courses Required for the Certificate of Accomplishment in Video Post-Production**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>BCST 143 Digital Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>BCST 165A or B Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**Recommended Additional Coursework:** BCST 120, BCST 126, BCST 146, BCST 148 and BCST 149
BCST 104. Race and Media (3)
Lec-3, field trips
Advise: ENGL 93 or 94 or placement in ENGL 96
A historical study of the image of African Americans, Asians, Hispanics, and other racial groups as projected through the mass media of print, film, radio, television, and recorded music. Ways in which the affected groups have responded to these images through general and ethnic media outlets. CSU/UC

BCST 105. Gender and Mass Media (3)
Lec-3
An exploration of the mass mediated messages—radio, television, film, print, and the Internet—and how they influence and define gender roles, with particular emphasis on how women are represented. A critique of roles given to each gender. An update on opportunities for women in each of the mainstream and alternative media industries. CSU

BCST 106. Queer TV: Television and Lesbian and Gay Identity (3)
Lec-3
P/NP available
Examination of how gays, lesbians, bisexuals, and transgendered people are represented in and by the mainstream electronic media with strong emphasis on television. CSU

BCST 109. Broadcast Production Laboratory (0)
Lab-8
Coreq.: BCST 110, 113, 117, 119, 120, 124, 125, 126, 127, 130, 131, 132, 133, 140, 142, 143, 144, 145, 146, 147, 148, 149, or 150
Supervised radio, audio, video, television, news, and sound recording production facilities and equipment for students to complete broadcast production assignments given in broadcast electronic media arts production classes. CSU

BCST 110. Writing for Broadcast Electronic Media (3)
Lec-3
Techniques of non-dramatic writing for electronic media including television, radio, cable, satellite, and webcast. Critique of professional and student scripts including commercials, news, public service announcements, infomercials, news services, and information providers. CSU

BCST 112. Investigative Reporting for Broadcast Electronic Media (3)
Lec-3
Prereq.: BCST 110
Investigative techniques used in radio television, cable, and webcast news. Research methods, interviewing methods, reporting techniques, story development techniques, story analysis, and writing methods for electronic media news. Introduction to digital media news gathering skills and news equipment, World Wide Web news gathering, and electronic news reporting by world media services and organizations. CSU

BCST 113. Broadcast Journalism (3)
Lec-3, lab-3
Prereq.: BCST 110 and 115
Repeat: max. 6 units
Writing, announcing, producing, packaging, and evaluating radio, television, cable, and satellite news. An examination of news formats, news judgment, social impact, and broadcast news ethics. Impact of emerging technologies on broadcast news. CSU

BCST 115. Announcing and Performance (3)
Lec-3
Advise: BCST 120
Introduction to interpretation of copy, pronunciation, and announcer's duties for radio, television, cable, and webcast. Practical experience announcing commercials, news, public service, and other kinds of programs. Performance skills are developed through regular use of audio and video facilities and equipment. CSU

BCST 117. Sports Announcing and Production (3)
Lec-3, lab-3
Prereq.: BCST 115; and 131 or 140 or demonstration of their exit skills.
Repeat: max. 6 units
All aspects of sports announcing and production for radio, television, cable, satellite, and the Internet. An exploration of sports coverage history, issues, technology, production, play-by-play announcing, color announcing, and career opportunities. Students will announce and produce live and live-on-tape broadcasts of City College sports events. CSU

BCST 119. Digital Media Skills (3)
Lec-2, conf-1, lab-1
A hands-on overview of computer operations, industry standard software, equipment common to digital video and audio production, media storage and manipulation of audio and video media within the digital realm. Introduction to issues and the impact of new technology in the sound recording, video, multimedia, television, radio and film industries. CSU

BCST 120. Audio Production (3)
Lec-3, lab-4
Theory of sound, recording techniques and operation of audio production equipment. Theoretical and aesthetic aspects of sound, acoustics, audio signal flow, sound recording, mixing, sound for video, television, internet and live sound reinforcement. Proper use of microphones, recorders, digital audio workstations, audio consoles, and other common audio production equipment. CSU

BCST 124. Digital Audio Production (3)
Lec-3, lab-3
Prereq.: BCST 120; and BCST 119 or MMSP 120 or CS 100M, or demonstration of their exit skills
Repeat: max. 6 units
Introduction to the digital audio production process. Basic skills of the entertainment/communications/multimedia industries including techniques and equipment currently used in digital audio production. CSU

BCST 125. Sound Recording Studio (4)
Lec-3, lab-6
Prereq.: BCST 120
Advise: BCST 124
Repeat: max. 8 units
This course covers the analog and digital multi-track techniques used in the various stages of professional sound recording as well as the workflow and etiquette required in a professional studio environment. The processes of acquiring basic tracks, overdubbing, editing, mixing and mastering will be examined. CSU
BCST 126. Sound for Visual Media (3)
Lec-3, lab-3, field trips
Prereq.: BCST 124 (may be taken concurrently)
Advise: BCST 140 or 145 or equivalent skills
Repeat: max. 6 units
Hands-on overview and theory of the processes, craft skills, and equipment used to apply sound to picture. Examines the stages of location sound production, dialog recording, sound editorial, sound design, Foley, music and mixing techniques for television, Internet, games and emerging media. CSU

BCST 127. Advanced Sound Recording (3)
Lec-3, lab-3, field trips
Prereq.: BCST 124 and 125
Repeat: max. 6 units
Theory and project-intensive course examining and using skills required for mixing and mastering audio. Students produce complex music production and sound-for-visual-media projects and examine digital and analog mixing techniques for various current and emerging media. CSU

BCST 128. Sound Reinforcement (3)
Lec-3, lab-3, field trips
Prereq.: BCST 120
Repeat: max. 9 units
Live sound history, theory, technology, and craft skills with an emphasis on skill and the technical manipulation of sound in acoustic spaces. Includes hands-on live sound production and operations for nightclubs, theaters, large-scale concert venues, and distributed sound systems. CSU

BCST 130. Radio News and Public Affairs (3)
Lec-2, lab-5
Prereq.: Completion/concurrent enrollment in BCST 110
Advise: BCST 100
Repeat: max. 6 units
Practical experience in researching and writing on-air copy for news, public affairs, and promotions. Introduction to specific digital technology created for radio. Composition and development of digitized audio news packages. Web search of story content; developing news beat assignments and sourcing interviews for radio stories. Comprehension of when, why, and how music and sound would enhance or detract from a news package. Students will write all aired content for KCSF 90.9 caFM, City College of San Francisco's student managed and student staffed radio station. CSU

BCST 131. Radio Production and Performance (3)
Lec-2, lab-5, field trips
Prereq.: BCST 120
Advise: BCST 115
Repeat: max. 6 units
Practical experience in radio production work and on-air announcing. Students serve as announcers, news reporters, on-air personalities, and air board operators for City College of San Francisco's closed circuit AM and cable FM radio station KCSF. CSU

BCST 132. Radio Management Skills (4)
Lec-2, lab-8
Advise: BCST 130 and 131
Repeat: max. 8 units
Practical experience managing individuals and small groups within a non-commercial and commercial radio station. A laboratory experience for understanding the dynamics of motivating people to perform creatively and skillfully within the skill sets required of a radio management team. Performance of key tasks which operate a digital radio system; supervising the programming and scheduling of radio station formats. CSU

BCST 133. Digital Radio Programming (3)
Lec-3, lab-1, field trips
Prereq.: BCST 119
Advise: BCST 120
Repeat: max. 3 units
A hands-on class focusing on technical considerations and content issues required to produce and deliver audio over the web. History of audio on the web and its impact on traditional broadcast media. CSU

BCST 135. Audio for the Web (1)
Prereq.: Completion of or concurrent enrollment in BCST 119
Advise: BCST 120
Repeat: max. 3 units
A hands-on class focusing on technical considerations and content issues required to produce and deliver audio content over the Internet. History of audio on the web and its impact on traditional broadcast media. CSU

BCST 136. Video for the Web (1)
Prereq.: BCST 135
Advise: BCST 145
Repeat: max. 3 units
A hands-on class focusing on technical considerations and content issues required to produce and deliver video content over the Internet. History of video delivery technology and its impact on traditional broadcast media. CSU

BCST 140. Studio Video Production (3)
Lec-2, lab-4
Prereq.: BCST 140 or 145 or FILM 24, plus BCST 119, MMSP 120 or CS 100M, or demonstration of their exit skills
Repeat: max. 6 units
Theory and operation of video production equipment and facilities. Video production planning and organization; concept development, and production management. Instruction in camera, audio, lighting, live switching, server operation as well as above-the-line roles such as writer, director, producer, etc. Students acquire knowledge and skills by creating studio-based video programming. CSU

BCST 142. Television Studio Operations (3)
Lec-2, lab-4
A basic introduction to video production facilities, equipment, and operations for advanced students in advertising, architecture, design and illustration, electronic engineering, film production, journalism, multimedia, graphic communications, and theatre arts. CSU

BCST 143. Digital Video Editing (3)
Lec-3, lab-3
Prereq.: BCST 140 or 145 or FILM 24, plus BCST 119, MMSP 120 or CS 100M, or demonstration of their exit skills
Repeat: max. 6 units
Digital video editing for video and film projects using industry standard AVID Xpress and Media Composer software on a Macintosh platform. Organizing the video edit, routing a networked video signal, digitizing video signal, creating the EDL, editing theory, editing principles, editing aesthetics, titling and 2D/3D effects, and output of final product from network to videotape. Students complete several short video editing projects. CSU
Advanced Aesthetic and technical elements of digital video field production, with emphasis on concept development, pre-production, production, and post-production. Students collaborate to design video packages for air on San Francisco's Educational Access cable channels and assist with productions for clients of the College's Broadcast Media Services video production unit. CSU

BCST 165A-165B. Industry Internship (2-2)
Lec/conf-1.5, work-8 P/NP available
Coreq.: Enrollment in minimum of 7 units of course work (including this course) and consent of instructor
On-campus college internship in an approved media related installation within the college such as Broadcast Media Services, Educational Access Television, KCSF Radio, and the Public Information Office. Resumé writing, communication skills, and job interview techniques. CSU

BCST 160A-160B-160C. College Internship (2-2-2)
Lec-1, 2, 3 P/NP available
Coreq.: Enrollment in minimum of 7 units of course work (including this course) and consent of instructor
On-campus college internship in an approved media related installation within the college such as Broadcast Media Services, Educational Access Television, KCSF Radio, and the Public Information Office. Resumé writing, communication skills, and job interview techniques. CSU

LBCS 96F. Labor Relations in Broadcasting (3)
Lec-3, field trips P/NP available
Study of labor relations in various industries, including their history, present status, and current issues. Includes ownership patterns, workplace structure, the changing workforce, management philosophies, unionization, workers' rights, and current concerns. Labor relations as they affect the economy, society, and culture. CSU
Formerly LABR 96F.

Business
Office: Cloud 105
Phone Number: (415) 239-3203
Web Site: www.ccsf.edu/business

Announcement of Curricula
General Information
The Business Department offers two-year degree programs in accounting, administrative support, general business, finance, marketing, paralegal/legal studies, real estate and travel and tourism.
Credit certificate programs are available in real estate, microcomputer accounting, general business, finance, international business, marketing, paralegal/legal studies, office technology, real estate, retail management, travel and tourism, travel and tourism destination specialist, and supervision. Noncredit (no tuition fees) certificate programs are available in administrative assistant, construction administrative assistant, microcomputer business applications, office support specialist, computerized accounting specialist, small business, and supervision and management.

**Admission.** Enrollment in the Business Program is open to all interested students. In some curricula, however, students must satisfy prerequisites before being admitted to certain courses.

**Instruction in Business and General Education.** Training is designed to help students acquire a high degree of technical skill, familiarize themselves with business principles and procedures, and develop the sense of responsibility essential to success. Each curriculum in the Credit Business Programs includes instruction in both a major field and related subjects such as business correspondence, speech, and business mathematics. Instruction in general education is included so that students may satisfy the College graduation requirements in this area.

**Work Experience Training.** Students enrolled in the Credit Business Programs may obtain credit for experience in their major fields by enrolling in work experience courses. Students are supervised by both employers and instructors. Students may offer toward graduation a maximum of six semester units of credit earned in off- or on-campus work-experience courses or in any combination of both.

**Associate in Science Degree.** The Business Department offers majors in accounting, administrative support, general business, finance, marketing, paralegal/legal studies, real estate and travel and tourism. Students who complete all courses required for their major and satisfy general College graduation requirements will receive the Associate in Science Degree.

**Transfer Information.** Students in the Business Program who intend to transfer to other colleges or universities should consult their academic advisers and their counselors and should consult the section of this catalog entitled, “Transfer Information.”

**Noncredit Certificate Programs.** These programs provide directed training for employment in the modern office. Computer skills, communication skills, and job preparation courses are emphasized in the noncredit sequences to prepare students for entry-level, clerical employment.

**Programs Offered:**

**Accounting**
- Accounting Major
- Microcomputer Accounting Credit Certificate

**Noncredit Certificates:**
- Accounting Assistant
- Clerical Accounting
- Computerized Accounting Specialist
- Specialized Accounting

**Administrative Support/Office Technology**
- Administrative Support Major
- Office Technology Credit Certificate

**Noncredit Certificates:**
- Administrative Assistant

**Advanced Word Processing**
**Basic Business Skills for Medical Office**
**Basic Word Processing**
**Basic Business Office Skills for Customer Service**
**Basic Computer Concepts**
**Business Office Publishing Basics**
**Business Office Publishing Specialist**
**Business Office Support Skills I**
**Business Office Support Skills II**
**Business Web Pages Basics**
**Business Web Pages Intermediate**
**Clerical Support Specialist**
**Computer Applications for Business**
**Construction Administrative Assistant**
**Excel Basics**
**Excel Specialist**
**Microsoft Office Specialist**
**Office Receptionist Specialist**

**Finance**
- Finance Major
- Finance Credit Certificate

**General Business**
- General Business Major
- General Business Credit Certificate

**Green Business**
- Green and Sustainable Business Credit Certificate
- Green and Sustainable Business Noncredit Certificate

**International Business**
- International Business Credit Certificate
- International Business Noncredit Certificate

**Marketing**
- Marketing Major
- Marketing Credit Certificate

**Paralegal/Legal Studies**
- Paralegal/Legal Studies Major
- Paralegal/Legal Studies Credit Certificate

**Real Estate**
- California Real Estate Major
- California Real Estate Credit Certificate

**Retail Management**
- Retail Management Credit Certificate

**Supervision and Management**
- Supervision and Management Credit Certificate
- Supervision and Business Management Noncredit Certificate

**Small Business**
- Small Business Noncredit Certificate

**Travel and Tourism**
- Travel and Tourism Major
- Credit Certificates:
  - Destination Specialist
  - Green and Sustainable Travel
Travel and Tourism
Travel and Tourism Management

**Accounting**

**Accounting Major (AS)**

Students who satisfactorily complete the Curriculum in Accounting, a two-year course of study, are qualified for employment as junior accountants in private, public, and civil-service accounting and as junior auditors in private and civil-service accounting. Positions to which graduates have advanced after gaining experience and undertaking further study include those of accounting supervisor, senior accountant, and senior auditor.

The course of study includes instruction in principles of accounting, intermediate accounting, auditing, cost accounting, microcomputer accounting, and income-tax procedure.

Students who complete each of the following courses, and complete the Graduation requirements for the AS degree, or the CCSF transfer Associate Degree General Education requirements, will satisfy the requirements for the Accounting Major.

**Courses Required for the Major in Accounting**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>ACCT 10 Intro to Accounting</td>
<td>.</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 66 or 68 Bus Math or Math of Bus</td>
<td>4</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>ACCT 2 Managerial Acct</td>
<td>4</td>
</tr>
<tr>
<td>BSEN 74 Bus Corresp</td>
<td>4</td>
</tr>
<tr>
<td>MABS 59 Federal Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>CLW 18 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 51 (fall only) Intermed. Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 55 (fall only) Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 53 Accounting on Microcomp</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 59B Calif Income Tax</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
</tr>
<tr>
<td>CLW 19 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 52 (spring only) Inter Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 54 (spring only) Auditing</td>
<td>3</td>
</tr>
<tr>
<td>LERN 62 Successful Job Search Techniques</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units**: 48-49

**Recommended electives**: BSEN 76, SMBS 135

**Microcomputer Accounting Certificate**

The program is designed to prepare students to enter the job market in positions that use the microcomputer for Accounts Receivable, Accounts Payable, Payroll, General Ledger, and other accounting functions.

**Admission.** Enrollment is open to all interested students.

**Credit Toward Graduation.** All credit that students earn in obtaining the Certificate of Achievement in Microcomputer Accounting may also be applied toward satisfaction of the requirements for graduation from the College.

Students may obtain the Certificate of Achievement in Microcomputer Accounting by completing each of the following courses with a final grade of C or higher:

**Courses Required for the Certificate of Achievement in Microcomputer Accounting**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 10 Intro to Accounting</td>
<td>4</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 66 or 68 Bus Math or Math of Bus</td>
<td>4</td>
</tr>
<tr>
<td>MABS 25** Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>LERN 62 Successful Job Search Techniques</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Units</strong>: 18-19</td>
<td></td>
</tr>
</tbody>
</table>

**Program Goal:** Prepare the student for entry-level assistant positions in A/P, A/R, billing, payroll, or in the financial services industry, such as bank teller or tax assistant. The student builds soft skills in customer service and communication with applicable computer skills.

**Learning Outcomes**

1. Describe and apply accounting principles and concepts.
2. Describe and apply basic payroll theory and procedures, including withholding and tax reporting.
3. Create and maintain financial statements using accounting computer software.
4. Apply standard business English to oral and written communication, including grammar, punctuation, mechanics, vocabulary, style and usage.
5. Utilize a variety of business applications software including word processing, spreadsheet and database; discuss current technology and trends.

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS 111 Orientation to Noncredit Certificates and Programs</td>
<td>15</td>
</tr>
<tr>
<td>ACBO 9201 Accounting I-Proprietorship and Partnership</td>
<td>70</td>
</tr>
<tr>
<td>or ACBO 9206 Basic Accounting Concepts I</td>
<td>70</td>
</tr>
<tr>
<td>and ACBO 9207 Basic Accounting Concepts II</td>
<td>70</td>
</tr>
<tr>
<td>ACBO 9205 QuickBooks Complete</td>
<td>90</td>
</tr>
<tr>
<td>or ACBO 9208 QuickBooks: Level I</td>
<td>90</td>
</tr>
<tr>
<td>and ACBO 9209 QuickBooks: Level II</td>
<td>90</td>
</tr>
<tr>
<td>or ACBO 9211 Microsoft Office Accounting-Level I</td>
<td>90</td>
</tr>
<tr>
<td>and ACBO 9212 Microsoft Office Accounting-Level II</td>
<td>90</td>
</tr>
<tr>
<td>ACBO 9210 Income Tax Prep: Intro</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9245 Windows Essentials for MS Office Applications</td>
<td>30</td>
</tr>
<tr>
<td>COMP 9932 Excel for Accounting Principles</td>
<td>45</td>
</tr>
<tr>
<td>or ACBO 9215 Microsoft Access for Accounting Principles</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Microsoft Excel for Business II</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9867 Microsoft Excel Essentials I</td>
<td>45</td>
</tr>
</tbody>
</table>
and COMP 9895 Microsoft Excel Essentials II
and COMP 9888 Microsoft Excel Essentials III  45
BOSS 4503 Business English
or BOSS 4500 Business English I
and BOSS 4501 Business English II  90
BOSS 4510 Business Communications  45
BOSS 3501 Customer Service Skills  15
BOSS 5505 Keyboarding Quick  15
BOSS 5506 Computer Keyboarding:
The Numeric Keypad  15
COMP 9889 Intro to MS Office
Applications for Business
or COMP 9952 Internet & E-mail for the Business Office
and COMP 9964 Microsoft Outlook Essentials
and WOPR 9991 Microsoft Word Essentials I
and WOPR 9993 Microsoft Word Essentials II
and COMP 9894 Microsoft Access Essentials I
and COMP 9951 PowerPoint  90
BOSS 3500 Job Preparation
or LERN 1062 Job Search Skills  15-45
Total Hours  615-645

Exit Requirements. Successful completion of all courses with a passing grade. Typing: 30+ wpm in a timed test with 90% accuracy. Minimum attendance of 80% in all classes is required. Completion of certificate coursework within three consecutive semesters.


Clerical Accounting Noncredit Certificate

Program Goal. Prepare students for entry-level and mid-level clerical office accounting positions. Students will learn skills needed to be competitive in the present job market—Microsoft Word, Excel, and Access; Keyboarding—alphabetic, numeric and the numeric keypad; business math; business English and communication; accounting principles and automated accounting using Microsoft Excel, Microsoft Office Accounting, and QuickBooks.

Students who receive this certificate will be qualified to apply for various administrative and accounting positions including, but not limited to, bookkeeper, accounts receivable, accounts payable and/or payroll clerk, data entry clerk, and administrative assistant.

Advisory Entrance Requirements: Completion of Certificate of Competency in BOSS – Phase I or equivalent, ESL Level 5/6; typing 25 wpm.

Learning Outcomes

1. Qualify for various administrative and accounting positions
2. Keyboard a minimum of 35 net words a minute
3. Prepare and interpret financial statements for businesses
4. Use appropriate language including work choice and sentence variety
5. Utilize a variety of business applications software including word processing, spreadsheet, database, and computerized accounting.

Courses Required for the Certificate of Completion in Clerical Accounting

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBO 9203 Principles of Acctg – Comprehensive</td>
<td></td>
</tr>
</tbody>
</table>

or both of the following
ACBO 9201 Acctg I – Proprietorship & Partnership
ACBO 9202 Accounting II – Corporate

or all of the following
ACBO 9206 Basic Accounting Concepts I
ACBO 9207 Basic Accounting Concepts II
ACBO 9211 Microsoft Office Accounting, Level I
ACBO 9212 Microsoft Office Accounting, Level 2  180
ACBO 9205 QuickBooks Complete
or both of the following
ACBO 9208 QuickBooks, Level I
ACBO 9209 QuickBooks, Level II  90

COMP 9904 Microsoft Excel for Business II  45
COMP 9932 Excel for Accounting Principles  45
COMP 9901 Microsoft Access for Business I
or ACBO 9215 Access for Accounting Principles  45
COMP 9936 Using Outlook for Office Support, Lvl I  45
WOPR 9995 Microsoft Word for Business II  45
BOSS 4500 Business English, Level I  45
BOSS 4510 Business Communications  45
BOSS 2500 Business Math w/ Spreadsheets  45
BOSS 5501 Keyboarding:
Skill Development (includes 10-key)  90
Total Hours  720

Exit Requirements. Successful completion of all courses with a passing grade. Typing 35 net wpm with no more than a 10% error rate.


Computerized Accounting Specialist Noncredit Certificate

Program Goal. Prepare students for entry- or mid-level jobs in the accounting and related fields. This program provides both manual and computerized instruction in maintaining records and in preparing appropriate reports and analyses. The Student will also learn the accounting functions of spreadsheet programs to assist in the preparation of financial reports.

Advisory Entrance Requirements: Eligibility for noncredit ESL Level 5/6; typing: 25 net wpm.

Learning Outcomes

1. Keyboard a minimum of 35 net words a minute.
2. Describe and apply accounting principles and concepts.
3. Use a computer to maintain accounting records.
4. Demonstrate appropriate language including word choice and sentence variety.
5. Utilize a variety of business applications software including word processing, spreadsheet, database, computerized accounting.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS IIII Orientation to Noncredit Certificates and Programs</td>
<td>15</td>
</tr>
<tr>
<td>ACBO 9203 Principles of Accounting (Comprehensive)</td>
<td></td>
</tr>
<tr>
<td>or ACBO 9201 Accounting I-Proprietorship &amp; Partnership</td>
<td></td>
</tr>
<tr>
<td>and ACBO 9202 Accounting - Corporate</td>
<td>180</td>
</tr>
<tr>
<td>or ACBO 9206 Basic Acct Concepts I</td>
<td></td>
</tr>
<tr>
<td>and ACBO 9207 Basic Accounting Concepts II</td>
<td></td>
</tr>
</tbody>
</table>
ACBO 9205 Computerized Accounting
or ACBO 9208 QuickBooks: Level I
and ACBO 9209 QuickBooks: Level II ............ 90
COMP 9889 Intro to MS Office Applications
for Business II
or COMP 9857 MS Office Business Applications
with Simulated Projects ................................. 90
COMP 9904 Microsoft Excel- Intermediate ........ 45
COMP 9932 Excel for Accounting Principles
or ACBO 9215 Microsoft Access for
Accounting Principles ................................. 45
COMP 9928 PowerPoint for Business ............... 45
BOSS 4503 Business English
or BOSS 4500 Business English I
and BOSS 4501 Business English II .................... 90
BOSS 4540 Business Communications ................ 45
BOSS 5500 Keyboarding for Computers .......... 45
BOSS 3500 Job Preparation
or LERN 1062 Job Search Skills ..................... 15-45
Total Hours ............................................ 705-735

Exit Requirements. Successful completion of all courses with a passing grade. Typing: 35+ wpm in a timed test with 90% accuracy. Minimum attendance of 80% in all classes is required. Completion of certificate coursework within two years.


Specialized Accounting Skills
Noncredit Certificate

Program Goal. Basic familiarization of specialized accounting skills in the areas of Income Tax Preparation, Accounts receivable and payable, and Payroll using QuickBooks. Provides students with a minimum of skills towards employability.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Course Hours
ACBO 9210 Income Tax Prep Intro .................. 15
ACBO 9213 QuickBooks A/P, A/R .................... 15
ACBO 9214 QuickBooks, Payroll ..................... 15
BOSS 5506 Computer Keyboarding:
The Numeric Keypad .................................. 15
BOSS 5505 Keyboarding Quick ..................... 15
Total Hours ............................................ 75

Administrative Assistant/
Office Technology

Administrative Support Major (AS)

This program is designed for students working or planning to work in administrative support positions in industry and government. Areas of emphasis include word processing, spreadsheets, and database management. Computer classes are taught “hands-on” in computer labs. Students have the opportunity to polish their written communication skills as well as learn the computer skills needed to succeed in a challenging office environment. Students who complete the curriculum receive the Associate in Science degree in Administrative Support.

Learning Outcomes

Students will be able to:
- Write effective business-related documents
- Apply computer skills to complete business tasks.
- Communicate effectively and appropriately in an office environment.
- Keyboard a minimum of 45 net words a minute
- Qualify for entry-level positions in administrative support

Courses Required for the Major in Administrative Support

Course Units
First Semester
MABS 25 Keyboarding
or MABS 30 Computer Keyboarding
or MABS 35 Speedbldg: Keyboard* ............... 1, 2, or 3
MABS 40 Internet Explorer & MS Outlook ............... 3
BSEN 70 Fund. of English Grammar & Comp ............. 4
Additional graduation requirements**

Second Semester
MABS 38 Keyboarding with Microsoft Word .......... 3
BSEN 74 Business Correspondence ..................... 3
BSMA 66 Business Mathematics
or BSMA 68 Mathematics of Business .................. 3 or 4
Additional graduation requirements**

Third Semester
MABS 391 Word Processing/Microsoft Word .......... 3
MABS 101 Spreadsheets for Business/Excel .......... 3
SPCH 6 Workplace Communication
or PSYC 26 Applied Psychology ...................... 3
Additional graduation requirements**

Fourth Semester
MABS 405 Developing Web Sites/Frontpage
or MABS 202 Powerpoint Presentations
or MABS 406 Dev Web Sites/Dreamweaver
or MABS 407 Dev Web Sites/Expression Web
or CNIT 101 Operating Systems I/Windows
or MRKT 145 Microcomp Marketing Appl ............. 3
Additional graduation requirements**

Total Units ............................................. 36-40
*Completion of program requires a keyboarding speed of 45 wpm. Keyboarding classes may be waived for students who pass the equivalency test of 45 wpm
**See a counselor for more information on graduation requirements

Office Technology Certificate

The certificate curriculum is a 21-23 unit program designed for students who desire recognition for completing a rigorous course of study in business office skills but who may not be interested in pursuing a degree. Students who complete the following courses with grades of C or higher in each course will receive the Certificate of Achievement in Office Technology.

Learning Outcomes

Students will be able to:
- Write effective business-related documents
- Apply computer skills to complete business tasks.
• Communicate effectively and appropriately in an office environment.
• Keyboard a minimum of 45 net words a minute
• Qualify for entry-level positions in office support

Courses Required for the Certificate of Achievement in Office Technology

Course                                  Units
First Semester
MABS 25 Keyboarding                    or MABS 30 Computer Keyboarding or MABS 35 Speedblading: Keyboard* .............. 1-3
MABS 40 Internet Explorer & MS Outlook ........................................ 3
BSEN 70 Funda of English Grammar & Comp ........................................ 4
LERN 62 Successful Job Search Techniques ........................................ 1

Second Semester
MABS 38 Keyboarding with Microsoft Word or MABS 391 Word Process/Microsoft Word .......................... 3
BSEN 74 Business Correspondence ................. 3
MABS 101 Spreadsheets for Business/Excel ................. 3
SPCH 6 Workplace Communication or or PSYC 26 Applied Psychology .......................... 3

Total Units ............................................... 21-23

*Completion of program requires a keyboarding speed of 45 wpm. Keyboarding classes may be waived for students who pass the equivalency test of 45 wpm.

Administrative Assistant Noncredit Certificate

Program Goal. Prepare the student for entry- to mid-level administrative support and related positions. Emphasis on developing both hard and soft skills needed to become an effective administrative assistant. Curriculum includes: keyboarding, document formatting, computer applications, customer service, business communication, and office procedures.

Advisory Entrance Requirements: Eligibility for noncredit ESL Level 1-3; typing: 25 net wpm; completion of WOPR 9486.

Learning Outcomes

1. Apply standard business English to oral and written communication, including grammar, punctuation, mechanics, vocabulary, style, and usage.
2. Identify and apply appropriate behaviors to satisfy customers and clients.
3. Operate a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.
4. Keyboard a minimum of 35 net words a minute.
5. Utilize a variety of business applications software including word processing, spreadsheet and database; discuss current technology and trends.

Course Requirements                  Hours
AAPS 1111 Orientation to Noncredit Certificates and Programs ........................................ 15
BOSS 3500 Keyboarding for Computers ......................... 45
BOSS 3510 Document Formatting & Production ......................... 90
BOSS 3509 Office Procedures for the 21st Century ......................... 45
BOSS 3508 Advanced Office Procedures for the 21st Century ......................... 45
ACBO 9208 QuickBooks: Level I or ACBO 9211 Microsoft Office Accounting-Level 1 ......................... 45
COMP 9947 Windows Folder & File Concepts ......................... 15
COMP 9952 Internet & E-mail for the Business Office ......................... 15
COMP 9948 Acrobat Bus Office Doc Conversion ......................... 15
COMP 9867 Microsoft Excel Essentials I ......................... 15
COMP 9895 Microsoft Excel Essentials II ......................... 15
COMP 9888 Microsoft Excel Essentials III ......................... 15
COMP 9928 PowerPoint for Business I ......................... 45
COMP 9901 Microsoft Access for Business I ......................... 45
BOSS 2500 Business Math w/Spreadsheets ......................... 45
BOSS 4503 Business English or BOSS 4500 Business English-Level I and BOSS 4501 Bus English-Level II ......................... 90
BOSS 4511 Effective Business Communications or BOSS 4510 Business Communications ......................... 45-90
BOSS 3501 Customer Service Skills ......................... 15
WOPR 9995 Microsoft Word for Business II ......................... 45
WOPR 9996 Microsoft Word for Business III ......................... 45
BOSS 3500 Job Preparation or LERN 1062 Job Search Skills ......................... 15-45

Plus (1) elective from the following:
WOPR 9997 Word Processing-Special Projects ......................... 45
COMP 9941 Simulated Projects for MS Office-Self-paced ......................... 45
COMP 9938 Publisher for Business Desktop Publishing ......................... 45
COMP 9920 Using SharePoint Designer (Web Expression) for Basic Web Pages ......................... 45

Total Hours ............................................... 810-885

Exit Requirements. Successful completion of all courses with a passing grade. Typing: 50+ wpm with 90% accuracy. Minimum attendance of 80% in all classes is required. Completion of certificate coursework within two years


Basic Business Skills for the Medical Office Noncredit Certificate

Program Goal. Prepare students for entry-level medical office positions, such as a receptionist or an admitting clerk. Topics include basic skills in Microsoft Office (Word, Excel, and PowerPoint), basic office/clerical procedures, keyboarding, medical terminology and software used in medical offices.

Advisory Entrance Requirements: Completion of Certificate of Competency in Business Office Support Skills-Phase I or equivalent, ESL Level 7/8.

Learning Outcomes

1. Quality for an entry-level position in a medical office.
2. Keyboard a minimum of 35 net words a minute.
3. Utilize a variety of business applications software including word processing, presentation, spreadsheet and medical billing database.
4. Develop and produce presentations utilizing electronic media and printed documents.
5. Apply standard business English to oral and written communications, including grammar, punctuation, mechanics, vocabulary, style, and usage.
Learning Outcomes
5/6; typing: 15–20 net wpm.

Eligibility for noncredit ESL Level 6.

Entrance Advisories. Eligibility for noncredit ESL Level 6; typing 25 wpm.

Learning Outcomes
1. Keyboard a minimum of 40+ net words a minute.
2. Apply standard business English to oral and written communication, including grammar, punctuation, mechanics, vocabulary, style and usage.
3. Utilize a variety of applications software including word processing, spreadsheet, database, digital photo-editing.
4. Apply computer skills to complete business tasks.

Courses Required for the Certificate of Completion in Business Productivity (Office Applications)

Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS IIII Orientation to Noncredit Certificates and Programs</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5501 Keyboarding: Skill Development</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5510 Document Formatting &amp; Production</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5509 Office Procedures for the 21st Century</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9245 Windows Essentials for MS Office</td>
<td>30</td>
</tr>
<tr>
<td>Office Applications</td>
<td></td>
</tr>
<tr>
<td>COMP 9952 Internet &amp; E-mail for the Business Office</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9486 Microsoft Word for Business I</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9995 Microsoft Word for Business II</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4503 Business English</td>
<td></td>
</tr>
<tr>
<td>or BOSS 4500 Business English - Level I</td>
<td></td>
</tr>
<tr>
<td>and BOSS 4501 Business English - Level I</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 4511 Effective Business Communication</td>
<td>45-90</td>
</tr>
<tr>
<td>or BOSS 4510 Business Communications</td>
<td></td>
</tr>
<tr>
<td>ACBO 9200 Recordkeeping for the Business Office</td>
<td></td>
</tr>
<tr>
<td>or BOSS 5508 Advanced Office Procedures</td>
<td>45</td>
</tr>
<tr>
<td>for the 21st Century</td>
<td></td>
</tr>
<tr>
<td>COMP 9900 Microsoft Excel for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9894 Microsoft Access Essentials I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9951 PowerPoint</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9964 Microsoft Outlook Essentials</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9957 Photoshop Elements I</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 3500 Job Preparation</td>
<td></td>
</tr>
<tr>
<td>or LERN 1062 Job Skills Search</td>
<td>15-45</td>
</tr>
</tbody>
</table>

Total Hours: 675–750

Exit Requirements. Successful completion of all courses with a passing grade. Typing 40+ net wpm in a timed test with 90% accuracy. Minimum attendance of 80% in all classes is required. Completion of certificate coursework within two years.

Learning Outcomes

1. Apply for an entry level clerical position.
2. Keyboard a minimum of 35 net words a minute
3. Develop and produce presentations utilizing electronic media and printed documents.

4. Utilize a variety of business applications software including word processing, spreadsheet, presentation, and database.

5. Adapt to changing technology.

Course requirements Hours
AAPS III Orientation to Noncredit Certificates and Programs 15
BOSS 5500 Keyboarding for Computers 45
BOSS 5510 Document Formatting & Production 90
WOPR 9486 Microsoft Word for Business I 45
WOPR 9995 Microsoft Word for Business II 45
WOPR 9996 Microsoft Word for Business III 45
COMP 9900 Excel-Beginning 45
COMP 9904 Excel-Intermediate 45
COMP 9909 Microsoft Excel for Business III 45
COMP 9910 Microsoft Access for Business II 45
COMP 9911 Microsoft Access for Business III 45
COMP 9936 Using Outlook for Office Support, Lvl I 45
COMP 9928 PowerPoint for Business 45

Plus (1) Elective from the following:
COMP 9940 Excel Special Topics-Beyond Adv 45
WOPR 9997 Word Processing-Special Projects 45
COMP 9938 Publisher for Business 45

Total Hours 645

Exit Requirements: Successful completion of all courses with a passing grade. Typing: 35+ wpm in a timed test with 90% accuracy. Minimum attendance of 80% in all classes is required. Completion of certificate coursework within three consecutive semesters.


Office Receptionist Noncredit Certificate

Program Goal. Prepare students for entry-level front office desk positions. Topics to be covered include Microsoft Office applications (Word, Excel, PowerPoint, Access, and Outlook), data entry, general office procedures, customer service skills, business letters, and email composition.

Students who receive the certificate will be qualified to apply for such positions as: Receptionist, Customer Service Representative, General Office Clerk, or Clerical Support Specialist.

Advisory Entrance Requirements. Completion of noncredit ESL levels 7 or placement in ESL level 8.

Learning Outcomes

Upon completion of this certificate students will:

- Keyboard a minimum of 35 net words a minute.
- Use technology (the Internet, Microsoft Windows, Word, Excel, Access, PowerPoint and Outlook) as a tool to complete essential business tasks.
- Demonstrate proficiency in answering phones, assisting customers, scheduling appointments, responding to email, and handling incoming and outgoing mail and packages.
- Use appropriate writing conventions including formatting, grammar, punctuation, and spelling.
- Qualify for entry-level clerical positions as indicated above.
### Basic Computer Concepts Noncredit Certificate

**Program Goal.** To develop basic competency skills using applications such as Microsoft Windows, email, searching the Internet and proper keyboarding techniques.

**Program Advisory.** Completion of noncredit ESL levels 5/6 or placement in ESL levels 7/8

Upon completion of this certificate students will:
- Keyboard a minimum of 20+ net words a minute.
- Use technology as a tool to complete essential business tasks.
- Use standard Internet and emailing practices.
- Be successful in other certificated programs.

#### Courses Required for the Certificate of Completion in Basic Computer Concepts

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 5500 Keyboarding for Computers</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9905 Intro to Windows for MS Office Applications</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9921 Intro to Internet for Office Support</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>135</td>
</tr>
</tbody>
</table>

### Basic Word Processing Noncredit Certificate

**Program Goal.** Develop basic employability in word processing skills to create typical business documents such as letters, memos and reports. Students learn basic editing and formatting skills, creating and formatting headers and footers, tables and references. Noncredit courses.

**Advisory Entrance Requirements.** Eligibility for noncredit ESL level 5/6, Keyboarding 25 wpm net

**Learning Outcomes**
1. Keyboard a minimum of 25 net words a minute.
2. Perform fundamental operations using Microsoft Word.
3. Use the mail merge task pane to create data sources, insert merge fields, and generate form letters.
4. Utilize appropriate file management techniques.
5. Demonstrate proper technique when keyboarding.

#### Courses Required for the Certificate of Completion in Basic Word Processing

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 5500 Keyboarding for Computers</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9991 Microsoft Word Essentials I</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9993 Microsoft Word Essentials II</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9994 Word Processing Level 3</td>
<td>15</td>
</tr>
</tbody>
</table>

### Financial Assistance

The Office Receptionist Certificate Program may be eligible for financial assistance. Please consult a counselor for further information.

### Advanced Word Processing Noncredit Certificate

**Program Goal.** Increase word processing competency in efficiently producing more complex documents (such as multi-page reports and brochures, mail merge documents, and simple web pages) using Microsoft Word. Noncredit courses.

**Advisory Entrance Requirements.** Eligibility for noncredit ESL levels 5/6; Keyboarding 35 wpm net

#### Courses Required for the Certificate Completion in Advanced Word Processing

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 5501 Keyboarding: Skill Development</td>
<td>15 – 90</td>
</tr>
<tr>
<td>or BOSS 5505 Keyboarding Quick</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9996 Microsoft Word for Business III</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9997 Word Processing - Special Projects</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>105 – 180</td>
</tr>
</tbody>
</table>

### Business Office Skills for Customer Service Noncredit Certificate

**Program Goal.** To develop both written and oral communication skills as well as effective ways to service and maintain customers or clients in business. Noncredit courses.

**Advisory Entrance Requirements.** Eligibility for noncredit ESL levels 5/6

#### Courses Required for the Certificate Completion in Business Office Skills for Customer Service

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMNC 9232 Effective Communication</td>
<td>18 – 45</td>
</tr>
<tr>
<td>or BOSS 4510 Business Communication</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 3501 Customer Service Skills</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9991 Microsoft Word Essentials I</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5505 Keyboarding Quick</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9950 E-mail Writing</td>
<td>5</td>
</tr>
<tr>
<td>Total Hours</td>
<td>68 – 95</td>
</tr>
</tbody>
</table>
Business Office Publishing Basics Noncredit Certificate

Program Goal. To develop basic desktop publishing skills required in business. Noncredit courses.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes

1. Perform fundamental operations using MS Publisher.
2. Use digital photo-editing software.
3. Create effective business-related documents.
4. Develop office publications.

Course  Hours
COMP 9938 Publisher for Business ................. 45
COMP 9907 Desktop Publishing for Business II .... 45
COMP 9957 PhotoShop Elements I
or COMP 9959 PhotoShop Elements ............... 15–45

Total Hours .............................................. 90–135

Business Office Publishing Specialist Noncredit Certificate

Program Goal. To develop comprehensive desktop publishing skills necessary for entry-or-mid-level office positions in the industry.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes

1. Perform fundamental operations using MS Publisher.
2. Use digital photo-editing software.
3. Create publications including flyers, newsletters, and brochures.
4. Develop office publications.

Course  Hours
COMP 9914 Desktop Publishing Advanced .......... 45
COMP 9943 Special Projects using Publisher ........ 45
COMP 9958 PhotoShop Elements II
or COMP 9959 PhotoShop Elements ............... 15–45

Total Hours .............................................. 105–135

Business Office Support Skills, Phase I Noncredit Certificate

Program Goal. Prepare students for entry-level office positions. Topics to be covered include basic skills in Microsoft Office applications (Windows and File Organization, Word, Excel, Access, and PowerPoint), Data Entry/10-Key, Customer Service, and general office procedures. Students who receive the certificate will be qualified to apply for such positions as:

Office Clerk; Junior Office Assistant; Filing Clerk; Shipping and Receiving Clerk; Bank Teller; Desk Clerk; Call Center Representative; Appointment Setter; Receptionist, Customer Service/Dispatch Representative; Office Support; Data Entry Clerk; Legal Records Clerk; Cashier; Entry level Clerical Support; Financial Teller; Front Desk.

Learning Outcomes

1. Utilize a desktop information management application.
2. Demonstrate accurate keyboard input at a minimum of 50 words a minute.
3. Utilize a variety of business applications software including word processing, presentation, spreadsheet and database.
4. Competently communicate in support of a business office.
5. Produce and design of complex electronics and paper based correspondence and documents.

Total Hours .............................................. 90–135

Business Office Support Skills, Phase II Noncredit Certificate

Program Goal. Prepare students for mid- to high-level office positions. Topics to be covered include proficiency in Microsoft Office applications (Windows and File Organization, Word, Excel, Access, and PowerPoint).

Students who receive the certificate will be qualified to apply for such positions as:

Office Manager; Mid/Senior Level Staff Assistant; Secretary/Personal Assistant; Assistant Manager; Administrative Assistant; Office Administrator; Legal Secretary; Bilingual receptionist; Executive Assistant; Data Management Secretary.

Learning Outcomes

1. Apply standard business English to oral and written communications, including grammar, punctuation, mechanics, vocabulary, style and usage.
2. Keyboard a minimum of 30 net words a minute; numeric keypad 175 strokes per a minute.
3. Utilize a variety of business applications software such as word processing, presentation, spreadsheet and database.
4. Apply and identify basic office procedures such as making travel arrangements and managing records.
5. Identify and apply appropriate behaviors to satisfy customers and clients.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Courses Required for the Certificate of Competency

Course  Hours
BOSS 3501 Customer Service Skills ..................... 15
BOSS 4503 Business English ............................. 90
BOSS 5501 Keyboarding-Skill Development
or BOSS 5502 Clerical Keyboarding .................. 90
BOSS 5506 Computer Keyboard:
The Numeric Keypad ........................................ 15
BOSS 5509 Office Procedures for the 21st Century .... 45
COMP 9889 Intro to MS Office Applications for Business and COMP 9951 PowerPoint
OR ALL OF THE FOLLOWING
COMP 9952 Internet & E-mail for the Business Office
COMP 9975 Microsoft Office Applications I
COMP 9976 Microsoft Office Applications II ........ 105

Total Hours .............................................. 360

Exit Requirements. Successful completion of all courses with a grade of C or higher. Typing 30+ net wpm with no more than a 10% error rate.
Advisory Entrance Requirements. Completion of Certificate of Competency in Business Office Support Skills, Phase I; Eligibility for noncredit ESL levels 7/8; type 30 wpm.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 4510 Business Communications</td>
<td></td>
</tr>
<tr>
<td>or BOSS 4511 Effective Business Communication</td>
<td>45-90</td>
</tr>
<tr>
<td>BOSS 5500 Keyboarding Quick</td>
<td></td>
</tr>
<tr>
<td>or BOSS 5501 Keyboarding - Skill Development</td>
<td></td>
</tr>
<tr>
<td>or BOSS 5502 Clerical Keyboarding</td>
<td></td>
</tr>
<tr>
<td>or BOSS 5503 Keyboarding All Levels</td>
<td>45-180</td>
</tr>
<tr>
<td>BOSS 5510 Document Formatting &amp; Production</td>
<td></td>
</tr>
<tr>
<td>or both of the following:</td>
<td></td>
</tr>
<tr>
<td>COMP 9941 Simulated Projects for MS Office Suite</td>
<td>90</td>
</tr>
<tr>
<td>WOPR 9996 Microsoft Word for Business III</td>
<td></td>
</tr>
<tr>
<td>COMP 9909 Microsoft Excel for Business III</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9910 Microsoft Access for Business II</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9928 PowerPoint for Business</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9936 Using Outlook for Office Support Level I</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>360-540</td>
</tr>
</tbody>
</table>

Exit Requirements. Successful completion of all courses with a grade of C or higher. Typing 30+ net wpm with no more than a 10% error rate.

Business Web Pages-Basics
Noncredit Certificate

Program Goal. To develop basic knowledge and skills in web page development that can be applied to an entry-level office position requiring basic web page knowledge. Noncredit courses.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes
1. Apply computer skills to complete business tasks.
2. Utilize a variety of business software including digital photo-editing, and web development.
3. Perform fundamental operations using Adobe Dreamweaver.
4. Perform fundamental operations using Adobe Photoshop Elements.
5. Perform fundamental operations using Adobe Flash.

Courses Required for the Certificate of Competency

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9917 Building Individual Web Sites</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9918 Building Business Web Sites</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9949 Dreamweaver I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9956 Introductory Flash for Bus/Office</td>
<td>15</td>
</tr>
<tr>
<td>One of the following Photoshop Elements options:</td>
<td></td>
</tr>
<tr>
<td>Option 1</td>
<td></td>
</tr>
<tr>
<td>COMP 9957 Photoshop Elements I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9958 Photoshop Elements II</td>
<td>15</td>
</tr>
<tr>
<td>Option 2</td>
<td></td>
</tr>
<tr>
<td>COMP 9959 Photoshop Elements</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>105-120</td>
</tr>
</tbody>
</table>

Business Web Pages-Intermediate
Noncredit Certificate

Program Goal. To develop a broader knowledge and skills base in business web page development that can be applied to an entry- or mid-level office position requiring web page skills. Noncredit courses.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes
1. Utilize a variety of business software including digital photo-editing, and web development.
2. Perform fundamental operations using Adobe Dreamweaver.
3. Perform fundamental operations using Adobe Photoshop Elements.
4. Create a business web site with a database connection.
5. Utilize web graphic tools.

Course
<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9919 Using Dreamweaver for Basic Business Web Pages</td>
</tr>
<tr>
<td>or COMP 9920 Using Web Expression for Web Pages</td>
</tr>
<tr>
<td>COMP 9959 Photoshop Elements</td>
</tr>
<tr>
<td>COMP 9933 Building Business Web Pages with Adobe Web Standard-Level I</td>
</tr>
<tr>
<td>COMP 9934 Building Business Web Pages with Adobe Web Standard-Level II</td>
</tr>
<tr>
<td>COMP 9935 Business Web Graphics</td>
</tr>
<tr>
<td>COMP 9922 Flash for Bus/Office Presentation</td>
</tr>
<tr>
<td>Total Hours</td>
</tr>
</tbody>
</table>

Construction Administrative Assistant
Noncredit Certificate

Program Goal. Prepare students for entry level positions in the construction office. Students study the basic procedures of this industry, terminology, jobsite office operation and message handling.

Students who complete this certificate will be better prepared for entry-level positions such as: Administrative Assistant; Project Coordinator; Receptionist

Advisory Entrance Requirements: Eligibility for noncredit ESLN 3700; type 20 wpm.

Upon completion of this certificate students will:
• Keyboard a minimum of 30+ net words a minute
• Use technology as a tool to complete essential business tasks
• Use appropriate conventions including format, grammar, punctuation, spelling and paragraphing
• Identify the steps in the accounting cycle
• Qualify for entry-level positions in administrative support

Courses Required for the Certificate of Completion in Construction Administrative Assistant

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBO 9206 Basic Accounting Concepts</td>
<td>45</td>
</tr>
<tr>
<td>ACBO 9208 QuickBooks, Level I</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4500 Business English-Level I</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 5500 Keyboarding for Computers</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 5511 Office Procedures for the Construction Industry</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9894 Microsoft Access Essentials I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9900 Microsoft Excel for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9951 PowerPoint</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9964 Microsoft Outlook Essentials</td>
<td>15</td>
</tr>
<tr>
<td>LERN 1062 Job Search Skills</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9486 Microsoft Word for Business I</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>375</td>
</tr>
</tbody>
</table>
Exit Requirements. Successful completion of all courses with a grade of C or higher. Typing: 30+ wpm in a timed test with 90% accuracy. Minimum attendance of 80% in all courses is required.

**Excel Basics Noncredit Certificate**

Program Goal. Essential Microsoft Excel skills are developed and practiced such that students establish a basic competency of and employability in working with Excel. Noncredit courses.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes

1. Perform fundamental operations using Microsoft Excel.
2. Define basic spreadsheet concepts and terms.
3. Utilize simple macros, formulas, functions, and lists.
4. Adapt to changing technology.

Courses | Hours
---|---
Option 1
COMP 9900 Microsoft EXCEL-Beginning | 45
COMP 9904 Microsoft EXCEL-Intermediate | 45
Option 2
COMP 9867 Microsoft Excel Essentials 1 | 15
COMP 9895 Microsoft Excel Essentials II | 15
COMP 9888 Microsoft Excel Essentials III | 15
**Total Hours** | **45 – 90**

**Excel Specialist Noncredit Certificate**

Program Goal. Advanced Microsoft Excel skills are developed and practiced such that students gain a solid competency of Excel and are capable of passing employment testing in this area. Noncredit courses.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes

1. Perform complex operations using Microsoft Excel.
2. Integrate Microsoft Excel with accounting principles.
3. Use spreadsheet software to make everyday business calculations.
4. Create financial statements using Microsoft Excel.

Courses Required for the Certificate of Completion in Excel Specialist

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9909 Microsoft Excel for Business III</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9932 Excel for Accounting</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 2500 Business Math w/Excel</td>
<td>45 – 90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>135 – 180</strong></td>
</tr>
</tbody>
</table>

**PowerPoint Specialist Noncredit Certificate**

Program Goal. Prepare students for various highly technical duties required in administrative support. The PowerPoint Specialist will create presentations with enhanced visual elements, integrate data with Excel or Word, proofread; perform duties such as grammar, spelling, and data accuracy.

Advisory Entrance Requirements. Completion of noncredit ESL levels 7 or placement in ESL level 8.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Utilize Microsoft Office applications with Photoshop Elements to create professional presentations.
- Integrate Microsoft Office applications efficiently to produce effective marketing presentations.
- Use technology as a tool to complete essential business tasks.

Courses Required for the Certificate of Completion in PowerPoint Specialist

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 5509 Office Procedures for the 21st Century</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9899 Desktop Publishing I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9900 Excel for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9919 Using Dreamweaver for Basic Business Web Pages</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9920 Using SharePoint Designer</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9928 PowerPoint for Business</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9959 Photoshop Elements</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9969 Dynamic PowerPoint for Business</td>
<td>45</td>
</tr>
<tr>
<td><strong>Elective Courses: Choose one of the following:</strong></td>
<td></td>
</tr>
<tr>
<td>ACBO 9208 QuickBooks Level I</td>
<td>45</td>
</tr>
<tr>
<td>or BOSS 3502 Customer Service Skills</td>
<td>45</td>
</tr>
<tr>
<td>or BOSS 4300 Keyboarding for Computers</td>
<td>45</td>
</tr>
<tr>
<td>or BOSS 5508 Advanced Office Procedures</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9904 Microsoft Excel for Business II</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9914 Desktop Publishing Advanced</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9922 Flash for Bus/Oiffe Presentation</td>
<td>45</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>360</strong></td>
</tr>
</tbody>
</table>

Exit Requirements. Successful completion of all courses with a grade of C or higher. Minimum attendance of 80% in all classes is required.

**Finance**

**Finance Major (AS)**

The two-year program leading to the Associate in Science degree is primarily designed for those planning to enter the financial services industry in entry-level or operational positions and those in the industry seeking advancement. The program is also meant for those students wishing to gain knowledge about the discipline of finance before transferring to a four-year college or university.

Courses Required for the Major in Finance

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>FIN 130 (fall only) Prin of Bank Operations</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 66 Bus Math</td>
<td></td>
</tr>
<tr>
<td>or BSMA 68 Math for Bus</td>
<td></td>
</tr>
<tr>
<td>or MATH 75 Math Analysis for Bus</td>
<td></td>
</tr>
<tr>
<td>or MATH 90 Advanced Algebra*</td>
<td>3 – 4</td>
</tr>
<tr>
<td>GNBS 119 Intro to Business</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>FIN 133 (spring only) Money &amp; Banking</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 10 or ACCT 1 Intro to Acc or Fin Accnt</td>
<td>4</td>
</tr>
<tr>
<td>ECON 1 Principles of Macroeconomics*</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>FIN 136 Intro to Fin Planning</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
</tbody>
</table>
Courses Required for the Major in General Business

Office.

Students who complete the curriculum in the major receive the Administration major at a four year college or university. In addition, partial preparation them for transfer into the Business major at a four year college or university. In addi-

Degree while partially preparing them for transfer into the Business major at a four year college or university. In addi-

Students completing this certificate will learn:

• How businesses can implement processes and technology to reduce costs, meeting government mandates, and to meet customer expectations. This certificate will provide students of all business disciplines an essential overview of green business concepts.

Expected expectations. This certificate will provide students of all business disci-

Companies are looking at green business initiatives as a means of reducing costs, meeting government mandates, and to meet customer expectations. This certificate will provide students of all business disciplines an essential overview of green business concepts.

Students completing this certificate will learn:

• The major business sectors and the environmental profile and impact of each

• How businesses can implement processes and technology to improve their environmental profile and profitability

• The role each department within a company can play in making a company greener and more sustainable.

**Courses Required for the Certificate of Achievement in Finance**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 138 Principles of Investment</td>
<td>3</td>
</tr>
<tr>
<td>MABS 67 or CS 101 Database for Bus/Access for Windows or Intro to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 122 Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>or MRKT 140 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>One elective from those listed below</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**: 43 – 44

* Required program courses that fulfill General Education Requirements

† Students wishing to transfer to a four-year university may substitute those courses meeting that requirement from the required electives.

**Electives**: BSEN 74, SMBS 135, FIN 110, RE 181, RE 186, WKEX 197, SUPV 231, ACCT 2, CLW 18, ECON 3, INTR 170

**Finance Certificate**

The Certificate of Achievement curriculum is designed for students who desire recognition for completing a rigorous course of study in financial services skills but who may not be interested in pursuing a degree. Students completing the curriculum with an average final grade point of C+ or higher (2.5 GPA) will receive the Certificate of Achievement in Finance. Below is the recommended sequence of required courses:

**Courses Required for the Certificate of Achievement in Finance**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>FIN 110 (fall only) Prin of Ins I: Gen Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 130 (fall only) Prin of Bank Operations</td>
<td>3</td>
</tr>
<tr>
<td>FIN 136 Intro to Financial Planning</td>
<td>3</td>
</tr>
<tr>
<td>GNBS 119 Intro to Business</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>ECON 1 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 133 (spring only) Money &amp; Banking</td>
<td>3</td>
</tr>
<tr>
<td>FIN 138 Principles of Investments</td>
<td>3</td>
</tr>
<tr>
<td>MABS 67 or CS 101 Database for Bus/Access for Windows or Intro to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 122 or 140 Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>30</td>
</tr>
</tbody>
</table>

**Credit Toward Graduation**: Credit earned in obtaining the Certificate of Achievement may be applied toward CCSF graduation requirements.

**General Business Certificate**

This field of concentration is designed to acquaint the student with the business world in general. With additional course work, it can prepare students for either employment or further education. Students with definite career/educational goals are encouraged to follow the appropriate curriculum guide for their specific field of concentration such as Accounting, Finance, Marketing, Real Estate, etc. Students may obtain the Certificate of Accomplishment in General Business by completing each of the following courses with a final grade of C or higher:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNBS 119 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 10 Intro to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 1 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>CLW 18 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 5 Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>CLW 18 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>27</td>
</tr>
</tbody>
</table>

**Recommended electives**: BSEN 74 Business Correspondence, SPCH 1A Elements of Public Speaking, ECON 10 Economic History of the United States, MATH 110 Calculus, MATH 75 Math Analysis for Business, Additional graduation requirements

*Satisfies General Education Breadth Requirements

**Green & Sustainable Business Certificate**

Companies are looking at green business initiatives as a means of reducing costs, meeting government mandates, and to meet customer expectations. This certificate will provide students of all business disciplines an essential overview of green business concepts.

Students completing this certificate will learn:

- The major business sectors and the environmental profile and impact of each
- How businesses can implement processes and technology to improve their environmental profile and profitability
- The role each department within a company can play in making a company greener and more sustainable.
Requirement for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Green Business by completing each of the following courses with a final grade of C or higher:

Courses Required for the Certificate of Accomplishment in Green and Sustainable Business:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNBS 119 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>GNBS 125 Green and Sustainable Business</td>
<td>3</td>
</tr>
<tr>
<td>GNBS 127 Green &amp; Sustainable Organization</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>9</td>
</tr>
</tbody>
</table>

A minimum of 6 units of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 10 Introduction to Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BSMA 68 Mathematics of Business</td>
<td>3</td>
</tr>
<tr>
<td>INTR 162 Survey of International Business</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 140 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 170 Introduction to Advertising</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>RE 181 Principles of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>SMBS 135 Ownership and Operations of a Small Business</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 231 Introduction to Supervision/Management</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 157 Principles of Travel and Tourism</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 180 Eco-travel and Tourism</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Green & Sustainable Small Business Noncredit Certificate

The growing importance of being an environmentally friendly small business cannot be overemphasized. This certification will give small business owners an overview of the aspects of being green, how to get green certification, how to market that certification once you get it and the costs and benefits of greening your business.

Courses Required for the Certificate of Completion in Green and Sustainable Small Business

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMBU 9467 Getting Started in Business</td>
<td>18</td>
</tr>
<tr>
<td>SMBU 9419 Developing a Business Plan</td>
<td>12</td>
</tr>
<tr>
<td>SMBU 9476 Green and Sustainable Business</td>
<td>9</td>
</tr>
<tr>
<td>SMGB 8500 Achieving San Francisco</td>
<td>3</td>
</tr>
<tr>
<td>SMGB 8501 Green Marketing for Small Business</td>
<td>6</td>
</tr>
<tr>
<td>SMGB 8502 Cost Benefits of Being Green</td>
<td>6</td>
</tr>
<tr>
<td>SMGB 8503 The Green Supply Chain</td>
<td>6</td>
</tr>
<tr>
<td>SMGB 8504 Green Certification</td>
<td>6</td>
</tr>
<tr>
<td>Total Hours</td>
<td>72</td>
</tr>
</tbody>
</table>

International Business

International Business Certificate

The Certificate Program in International Business fulfills the needs of three groups: students preparing themselves for careers in international business, currently employed individuals whose job responsibilities require expertise in international business practices, and entrepreneurs who want to begin or globalize their business ventures.

Students may obtain the Certificate of Accomplishment in International Business by completing the following courses with an average final grade of C or higher:

Courses Required for the Certificate of Accomplishment in International Business

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 162 Survey of International Bus</td>
<td>3</td>
</tr>
<tr>
<td>INTR 163 International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>INTR 167 International Law</td>
<td>3</td>
</tr>
<tr>
<td>INTR 170 International Finance</td>
<td>3</td>
</tr>
<tr>
<td>INTR 172 International E-Business</td>
<td>3</td>
</tr>
<tr>
<td>INTR 173 Export-Import</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>18</td>
</tr>
</tbody>
</table>

Credit Toward Graduation. All credit that students earn in International Business may also be applied toward satisfaction of the requirements for graduation from the college.

International Business Noncredit Certificate

Program Goal. The International Business noncredit certificate is designed to prepare students currently operating their own business to expand into international markets, students who are considering starting their own export/import business, and students preparing to improve their job skills to enter or advance in the field of international business.

The course offerings examine all relevant aspects of international business including marketing, planning, shipping, finance, documentation, insurance, customs regulations, and government assistance programs. Students will review business practices and trade issues with the countries of Asia, Europe, Africa, Middle East and Latin America.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 9456 Export/Import Shipping &amp; Insurance</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9457 Export/Import Marketing</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9458 Export/Import Financing</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9459 Export/Import Basics</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9460 Export/Import Documents</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9773 U.S. Trade Competitiveness</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9785 U.S. Trade with Asia Part I (Japan and South Korea)</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9786 U.S. Trade with the Americas</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9787 U.S. Trade with African Countries</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9790 U.S. Trade with Asia Part II (China, Hong Kong and Taiwan)</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9791 U.S. Trade with Western Europe</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9792 U.S. Trade with Eastern Europe</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9793 U.S. Trade with the Middle East</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9794 Developing the International Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9797 U.S. Trade with Asia Part III (Southeast Asia)</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9795 International Bids, Proposals (RFPs) and Tenders</td>
<td>3</td>
</tr>
<tr>
<td>INTR 9796 International Trade Agencies and Agreements</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>45</td>
</tr>
</tbody>
</table>

Exit Requirements. Successful completion of all required courses with a grade of C or higher. (Students may not repeat a class more than one time.) Completion of courses within three years.

Offered by:
Downtown Campus .................................... 267-6503

Marketing

Marketing Major (AS)

Degree Curriculum
The Curriculum in Marketing, a two-year course of study, offers students interested in careers in advertising, professional sales, marketing research, marketing management, promotion, and other marketing jobs specialized training for career advancement and employment. The Marketing curriculum combines classroom instruction, practical experiences, coordinated part-time employment, and internships.

Learning Outcomes
Students will be able to:

- Create an integrated marketing communications plan which includes promotional strategies and measures of effectiveness
- Identify core concepts of marketing and the role of marketing in business and society
- Formulate marketing strategies that incorporate psychological and sociological factors which influence consumers
- Analyze marketing problems and provide solutions based on a critical examination of marketing information
- Apply knowledge and skills to real-world experiences on the job

Courses Required for the Major in Marketing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSMA 66 or 68 Mathematics for Business</td>
<td>4 or 3</td>
</tr>
<tr>
<td>INTR 163 International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 122 Fundamentals of Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 140 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 145 Microcomputer Mktng Application</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 148 Marketing Management &amp; Supervision</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 150 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 170 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>SMBS 135 Small Business</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>27–28</td>
</tr>
</tbody>
</table>

Recommended electives: BSEN 70, 74; CS 101; PSYC 1, 26; SPCH 11, 12; WKEX 197, ACCT 1 or 10.

Marketing Certificate

Students may receive a Certificate of Achievement in Marketing by completing the following courses with a final grade of C or better:

Learning Outcomes
Students will be able to:

- Create an integrated marketing communications plan which includes promotional strategies and measures of effectiveness
- Identify core concepts of marketing and the role of marketing in business and society
- Formulate marketing strategies that incorporate psychological and sociological factors which influence consumers
- Analyze marketing problems and provide solutions based on a critical examination of marketing information
- Apply knowledge and skills to real-world experiences on the job

Courses Required for the Certificate of Achievement in Marketing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSMA 66 or 68 Bus Math or Math of Bus</td>
<td>4 or 3</td>
</tr>
<tr>
<td>INTR 163 International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 122 Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 140 Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 145 Microcomputer Mktng Appl</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 148 Mktng Mgmt &amp; Supervision</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 150 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 170 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>SMBS 135 Small Business</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>27–28</td>
</tr>
</tbody>
</table>

Paralegal/Legal Studies

Paralegal/Legal Studies Major (AS)

The work of a paralegal has been recognized by the American Bar Association, state bars, and local bar associations as an important step in helping the legal profession meet the increasing demand for its services and in providing these services more efficiently and promptly. Today's law offices seek paralegals qualified to do certain work under the supervision of an attorney. NOTE: Paralegals may not provide legal services directly to the public except as permitted by law.

Associate in Science Degree
City College of San Francisco trains students in a two-year course of study in Paralegal/Legal Studies. The course of study is designed so that students may satisfy the general education requirements and paralegal course requirements for graduation from the College. Students who satisfy graduation requirements and the courses in Paralegal/Legal Studies with a letter grade of C or higher receive the degree of Associate in Science with a Major in the Paralegal/Legal Studies.

Admission. Enrollment is open to all students who are admitted to City College of San Francisco and who have satisfied the prerequisites listed next to each course before enrolling in that course. Students entering the degree program must have placed into ENGL 1A or completed ENGL 96 with a final grade of C or higher.

Coursework Transfer. Students may transfer up to 12 units of paralegal courses completed at an ABA-approved paralegal program OR at an accredited college or university in the United States provided that (1) the courses are similar in content and contact hours to our existing courses and (2) the letter grade earned in such courses was a C or higher. Courses completed in law school are not acceptable as these courses do not emphasize or teach paralegal skills.

Course of Study. The course of study includes instruction in the following: introduction to paralegal studies; civil litigation; commercial law; tort law; wills, trusts, and probate administration; family law; civil and criminal evidence; legal research and writing; law office management and procedures; real estate law; environmental law; labor law; medical law; debtors' rights and creditors' remedies; corporate law; intellectual property law; immigration law; communication law; and work experience.

Goals and Outcomes. The degree program is designed so that students may earn a degree and a paralegal certificate from the college. Both the degree and certificate programs teach students how to write and communicate in formats acceptable in today's legal offices; how to locate and analyze the law; how to handle the ethical issues facing today's legal professionals; how to navigate through the federal and California court systems; and how to operate within a law office. Both programs provide practical skills in law office software and business practice as well as instruction in the areas of substantive law.

Employment. Those who complete the curriculum satisfactorily are qualified for employment as paralegals in law offices, government offices, and other businesses.
Courses Required for the Degree and Major in Paralegal/Legal Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 1 Intro to Paralegal Studies</td>
<td>3</td>
</tr>
<tr>
<td>PLS 2 Legal Research and Writing I</td>
<td>3</td>
</tr>
<tr>
<td>CLW 18 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>Additional general education requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 3 Legal Research &amp; Writing II</td>
<td>3</td>
</tr>
<tr>
<td>PLS 4 Litigation I</td>
<td>3</td>
</tr>
<tr>
<td>CLW 19 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>Additional general education requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 5 Litigation I</td>
<td>3</td>
</tr>
<tr>
<td>Two Program Electives from the Paralegal/Legal Studies Program</td>
<td>6</td>
</tr>
<tr>
<td>Additional general education requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 6 Law Office Management and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Two Program Electives from the Paralegal/Legal Studies Program</td>
<td>6</td>
</tr>
<tr>
<td>Additional general education requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>36</td>
</tr>
</tbody>
</table>

General Education Requirements. IMPORTANT: Students must see the Paralegal/Legal Studies Program Coordinator about the general education courses for the Paralegal/Legal Studies Degree. The following courses are NOT approved as general education courses for the Paralegal/Legal Studies Degree:

Area C: Nutrition and Ornamental Horticulture
Area D: Academic Achievement Personal Success, Health Education, and Physical Education
Area E: Design
Area G: Culinary Arts, Health Education, Nutrition, and Physical Education
Area H: Health Education, Physical Education, and Supervision and Business Management

Paralegal/Legal Studies Program Electives. PLS 7, PLS 8, PLS 9, PLS 10, PLS 11, PLS 12, PLS 13, PLS 14, PLS 15, PLS 16, PLS 17, PLS 18, PLS 19; also allowed are LBCS 72; ADMJ 53; and RE 185.

Coursework Transfer. Students may transfer up to 12 units of paralegal courses completed at an ABA-approved paralegal program OR at an accredited college or university in the United States provided that (1) the courses are similar in content and contact hours to our existing courses and (2) the letter grade earned in such courses was a C or higher. Courses completed in law school are not acceptable as these courses do not emphasize or teach paralegal skills.

Goals and Outcomes. The certificate program is designed for students who already hold a college degree and certificate programs teach students how to write and communicate in formats acceptable in today’s law offices; how to locate and analyze the law; how to handle the ethical issues facing today’s legal professionals; how to navigate through the federal and California court systems; and how to operate within a law office. Both programs provide practical skills in law office software and business practices as well as instruction in the areas of substantive law.

Courses Required for the Certificate of Achievement in Paralegal/Legal Studies

Each course must be completed with a letter grade of C or higher. The following is the sequence for required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 1 Introduction to Paralegal Studies</td>
<td>3</td>
</tr>
<tr>
<td>PLS 2 Legal Research and Writing I</td>
<td>3</td>
</tr>
<tr>
<td>CLW 18 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 3 Legal Research and Writing II</td>
<td>3</td>
</tr>
<tr>
<td>PLS 4 Litigation I</td>
<td>3</td>
</tr>
<tr>
<td>CLW 19 Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 5 Litigation II</td>
<td>3</td>
</tr>
<tr>
<td>One Program Elective from the Paralegal/Legal Studies Program</td>
<td>3</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>PLS 6 Law Office Management and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>One Program Elective from the Paralegal/Legal Studies Program</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>30</td>
</tr>
</tbody>
</table>

Program Electives. Please note that a minimum of two electives from the Paralegal/Legal Studies Program must also be completed. The following is a list of the accepted electives: PLS 7, PLS 8, PLS 9, PLS 10, PLS 11, PLS 12, PLS 13, PLS 14, PLS 15, PLS 16, PLS 17, PLS 18, PLS 19; also allowed are LBCS 72; ADMJ 53; and RE 185.

Real Estate

California Real Estate Major (AS)

The curriculum in Real Estate, a two-year course of study, is designed to give students a sound foundation in theory and practice so that they may hold a salaried position while they prepare for specialized realty work, and to help them obtain the California real estate salesperson’s license. The curriculum is sponsored by the Department of Real Estate of the State of California, the California Association of Realtors, and the San Francisco Board of Realtors.

Entry positions open to graduates who pass the California State examination for a salesperson’s or broker’s license include those of sales agent, rental agent, or property manager for a bank or land-development company; or in the property department of a corporation, a savings-and-loan company, or an insurance company. Graduates may
also search titles and close transactions in the escrow departments of any of these establishments or for escrow companies.

Students interested in obtaining a real estate salesperson’s or a broker’s license may obtain information by telephoning the Oakland office of the State of California Department of Real Estate at (510) 622-2552.

The course of study includes instruction in the following: principles of real estate, real estate practice, real estate economics and investments, legal aspects of real estate, principles of real estate appraisal, and principles of real estate finance.

Students who complete the Curriculum in Real Estate with an average final grade of C plus (2.50 grade-point average) or higher receive the degree of Associate in Science and the California Real Estate Certificate.

Students must satisfy the City College graduation requirements and must complete the following courses:

Courses Required for the Major in California Real Estate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 181 Principles of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 184 Real Estate Practice</td>
<td>3</td>
</tr>
<tr>
<td>RE 185 Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 186 Principles of Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RE 189 Real Estate Economics</td>
<td></td>
</tr>
<tr>
<td>RE 191 Principles of Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>

California Real Estate Certificate

The California Real Estate Certificate is currently awarded by 90 community colleges in California. City College of San Francisco participates in this Statewide program and awards the California Real Estate Certificate to any day or evening student who completes a prescribed program of 24-semester units.

A student may complete only those courses required for the California Real Estate Certificate, since this is awarded independently of the Associate in Science degree. However, students who complete the full course of study leading to that degree will automatically have completed the requirements for, and will be awarded, the California Real Estate Certificate.

Training for the Certificate is designed so that those seeking entry employment may prepare themselves to take the State licensing examination for real estate salespersons, and so that those already employed in various branches of real estate work may gain further knowledge and develop additional competence.

Students may obtain the California Real Estate Certificate by completing the following courses:

Courses Required for the Certificate of Achievement in California Real Estate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 181 Principles of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 184 Real Estate Practice</td>
<td>3</td>
</tr>
<tr>
<td>RE 185 Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 186 Principles of Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RE 189 Real Estate Economics</td>
<td></td>
</tr>
<tr>
<td>RE 191 Principles of Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>Electives: real estate or other business courses</td>
<td>6</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>

The six semester units in the elective courses indicated above must be completed in real estate or other acceptable business courses.

If the candidate for the California Real Estate Certificate holds a valid California real estate salesperson’s or broker’s license, a three-unit course in real estate or another area of business may be substituted in lieu of RE 181.

Retail Management

Retail Management Certificate

The program of study for the Certificate of Achievement in Retail Management is designed to prepare students for employment as retail managers.

Admission. Enrollment is open to all interested students. However, students may be required to satisfy prerequisites before being admitted to certain courses.

Students may obtain the Certificate of Achievement in Retail Management by completing the required 10 courses totaling 31/32 units. Each course must be completed with a grade of C or higher or Credit.

Courses Required for the Certificate of Achievement in Retail Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSMA 66 Business Math</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 234 Communication for Bus Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 68 Mathematics of Business</td>
<td>4 or 3</td>
</tr>
<tr>
<td>ACCT 10 Intro to Accounting</td>
<td>4</td>
</tr>
<tr>
<td>MRKT 140 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 233 Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>FASH 44 Merchandising—Retail Buying</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>31–32</td>
</tr>
</tbody>
</table>

Small Business

Small Business Noncredit Certificate

Program Goal. Prepares students for a successful start in their own small business and helps small business owners increase the effectiveness and operation of their business in 5 areas: 1) Starting Out, 2) Management, 3) Finance, 4) Marketing, and 5) Export/Import and International Business.

Learning Outcomes

Upon completion of this certificate, students will be able to:

- Outline and describe the major tasks required to open a small business as covered broadly in SMBU 9467 Getting Started in Business and in more detail in courses such as SMBU 9793 Intro to Marketing, SMBU 9466 Employer/Employee Rights, and SMBU 9776 Record Keeping.
- Create a financial analysis to assess the feasibility of a business idea and the profitability of a business model as covered in SMBU 9467 Getting Started in Business, SMBU 9419 Developing a Business Plan, and SMBU 9784 Finance for Small Business.
- Write a basic business plan to use in structuring and organizing a small business as well as applying for loans and securing partners or investors as covered in SMBU 9419 Developing a Business Plan, SMBU 9796 Profiting from Financial Statements, and SMBU 9462 Marketing Analysis.

**Courses Required for the Certificate of Completion in Small Business**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMBU 9419 Developing a Business Plan</td>
<td>12</td>
</tr>
<tr>
<td>SMBU 9467 Getting Started in Business</td>
<td>18</td>
</tr>
</tbody>
</table>

**Elective Courses:** From the following, choose one course from each of the five categories plus 27 additional hours from other courses in any category:

**Starting Out**
- SMBU 9436 Buying a Business ..... 3
- SMBU 9451 Business Licenses and Permits ..... 3
- SMBU 9781 Legal Structures for Business ..... 3
- SMBU 9772 Finding the Right Location ..... 3
- SMBU 9430 Introduction to Franchising ..... 3
- SMBU 9423 Restaurant Entrepreneurship ..... 12
- SMBU 9782 Home-Based Business ..... 3
- SMBU 9778 Franchise Business Basics ..... 3
- SMBU 9779 Understand Your Lease ..... 3
- SMBU 9439 Selling a Business ..... 3
- SMBU 9476 Green and Sustainable Small Business ..... 9

**Management**
- SMBU 9792 Introduction to Management ..... 3
- SMBU 9447 Business Law for Small Business ..... 3
- SMBU 9452 Supervising Employees ..... 3
- SMBU 9449 Staffing Your Business ..... 3
- SMBU 9453 Business Communications ..... 3
- SMBU 9461 Retail Management ..... 3
- SMBU 9465 Small Business Insurance ..... 3
- SMBU 9448 Purchasing Products & Services ..... 3
- SMBU 9440 Entrepreneurs’ Round Table ..... 3
- SMBU 9469 Controlling Your Inventory ..... 3
- SMBU 9399 Human Resources - Small Business ..... 3
- SMBU 9468 Employee Training ..... 3
- SMBU 9466 Employer/Employee Rights ..... 3

**Finance**
- SMBU 9791 Introduction to Finance ..... 3
- SMBU 9796 Profiting from Financial Statements ..... 3
- SMBU 9437 Keeping Score On Your Finances ..... 3
- SMBU 9783 Getting the Right Loan ..... 3
- SMBU 9784 Finance for Small Business ..... 3
- SMBU 9776 Record Keeping ..... 3
- SMBU 9418 Small Business and Taxes ..... 3
- SMBU 9785 Contract Administration ..... 3

**Marketing**
- SMBU 9793 Introduction to Marketing ..... 3
- SMBU 9462 Marketing Analysis ..... 3
- SMBU 9470 Marketing Strategy ..... 3
- SMBU 9471 Pricing a Product or Service ..... 3
- SMBU 9450 Effective Advertising ..... 3
- SMBU 9463 Telephone as a Sales Tool ..... 3
- SMBU 9421 Successful Sales 3 ..... 3
- SMBU 9774 Selling and Sales Management ..... 3
- SMBU 9454 Getting Government Business ..... 3
- SMBU 9477 eBay for Your Small Business ..... 9

**Export/Import and International Business**
- SMBU 9457 Export Marketing ..... 3
- SMBU 9460 Export/Import Documents ..... 3
- SMBU 9458 Export-Financing ..... 3
- SMBU 9459 Export/Import Basics ..... 3
- SMBU 9456 Export Shipping and Insurance ..... 3
- SMBU 9773 U.S. Competitiveness ..... 3
- SMBU 9455 Trade With Asia ..... 3
- SMBU 9788 Trade With Europe ..... 3
- SMBU 9786 Trade With the Americas ..... 3
- SMBU 9787 Trade With Africa ..... 3

**Total Hours** ..... 72

---

**Supervision and Management**

**Supervision and Management Certificate**

Enrollment in supervision courses is for those who desire to advance to supervisory and/or management positions in business, government, education, non-profit, and community based organizations and also for others who are currently employed as supervisors and desire to upgrade their supervisory skills.

**Requirement for the Certificate of Accomplishment.** Students may obtain the Certificate of Accomplishment in Supervision and Management by completing each of the following courses with a final grade of C or higher:

**Courses Required for the Certificate of Accomplishment in Supervision**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPV 231 Intro to Super/Management</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 232 Organizational Behavior &amp; Dev</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 233 Human Resource Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 234 Communication for Bus Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 235 Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>or SUPV 236 Women Leaders at Work</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** ..... 15

**Credit Toward Graduation.** All credits that students earn in obtaining the Certificate of Accomplishment in Supervision and Management may be applied toward satisfaction of the requirement for graduation from the college.

**Supervision and Business Management Noncredit Certificate**

**Program Goal.** Courses in the Certificate Program are designed for persons preparing for positions in business or government, and for experienced persons upgrading their supervisory and business management skills. The curriculum consists of basic core subjects plus elective courses. Class contact time is 18 hours per course. Topics stressed include leadership skills, communication, motivation, personnel and human relations; computing, problem-solving, and decision-making; planning, organizing, staffing, directing, and controlling operations.

The Community College Certificate is awarded upon completion of 4 core areas and 4 elective courses listed below:

**Core Course**
- **Supervision and Management**
  - SUMA 9412 The Supervisor in Management ..... 18
  - SUMA 9416 Organizational Leadership ..... 18
  - SUMA 9479 Management Practices ..... 18
Personnel Responsibilities of Supervisors
SUMA 9413 Personnel Management ............... 18
SUMA 9417 Affirm Action & Opportunity ........... 18
SUMA 9423 Developing & Appraising Staff .......... 18

Human Relations and Organizational Behavior
SUMA 9414 Human Relations .......................... 18
SUMA 9442 Assertiveness and Conflict ............... 18
SUMA 9443 Interpersonal Communication .......... 18

Concepts of Government and Administration
SUMA 9415 Business and Government ............... 18
SUMA 9454 Budgeting and Control .................. 18

Total Hours ............................................ 270

Elective Courses (4 courses/72 Hours): COMP 9252, 9869, 9905; SUMA 9416, 9419, 9424, 9425, 9429, 9436, 9438, 9440, 9452, 9454, 9455, 9456, 9457, 9458, 9463, 9473, 9480.

Exit Requirements. Successful completion of 270 hours of classroom instruction in core and elective courses. Credit by petition is available.

Admission Requirements. High school diploma, GED, or high school proficiency certificate.

Travel and Tourism

Travel and Tourism Major (AS)
The curriculum in Travel and Tourism offers two different Certificates of Accomplishment, as well as a two-year course of study with special emphasis in either Marketing, Management, or Destination Development.

Learning Outcomes
The specific course of study that the student will follow is an integral part of the course content of the Principal of Travel and Tourism classes. Upon completion of TRTV 157 and TRTV 159, the student will know if they will pursue their Travel and Tourism Degree in marketing, management, or in destination development. The Travel and Tourism program prepares students for jobs in the airlines as reservation agents, marketing representatives, customer service personnel to name just a few of the jobs, the same kinds of jobs with hotels, tour companies, cruise lines, consulate and tourist information offices and with travel agencies (corporate, leisure, special interest, group or meeting and planning agencies). Many of the students enrolled in this program are pursuing a second career, so careful evaluation of their current job skills help determine where they fit into this quickly changing and growing industry.

The curriculum in Travel and Tourism provides practical training in the specific vocabulary used in the industry, the reference books used in all sectors, how to read and design tour and cruise brochures, common business practices, airline computer operations and formats, fare constructions, group sales pricing, special interest tour development. The Destination classes are designed to advise the student of all there is to know about travel in a specific region of the world. Students learn about visa requirements, how to get there, competitive airfares to the destination, which tour companies sell the destination, languages, religion, what to see, what to do. Completion of the two-year degree will give students a necessary foundation in computer skills, communication skills as in learning to qualify the client, written and spoken English, psychology, anthropology, marketing skills, management styles, and specific tourist destinations in the world.

To successfully complete this Major every class must be completed with a grade of C or better.

Courses Required for the Major in Travel and Tourism

Course Units
TRTV 157 Principles of Travel & Tourism ................ 3
TRTV 159 Adv. Principles of Travel & Tourism ............ 3
TRTV 160 Transportation Field Work ....................... 1
TRTV 181 Business Travel ................................... 3
TRTV 182 Tour Management ................................. 3
MABS 60 Intro to Computer Appl. for Business ........... 3

A minimum of 11 units of the following courses:
TRTV 155 Meeting and Event Planning .................... 1
TRTV 171A Destinations: Cities I ............................. 3
TRTV 171B Destinations: Cities II ............................. 3
TRTV 172 Destinations: Natural Wonders ................. 3
TRTV 173 Destinations: Historical & Archaeological .... 3
TRTV 174 Destinations: Cruises .............................. 3
TRTV 175 Destinations: Hotels, Resorts, & Spas .......... 3
TRTV 180 Destinations: Eco-Travel & Tourism .......... 3

Total Units ............................................. 27

Travel and Tourism Certificate

The Certificate of Accomplishment in Travel and Tourism fulfills the needs of two groups: those who desire to prepare for employment in any of the travel related industries including airlines, hotels, tour companies, travel agencies and tourist offices; and those currently employed professionals who wish to improve their on the job skills in this industry.

Learning Outcomes
Students completing this certificate will learn:
- The component industries of the travel and tourism industry and how they are interconnected
- How to plan any type of travel to destinations throughout the world
- How the businesses in travel and tourism industry differentiate themselves to be competitive

To successfully complete this certificate every class must be completed with a grade of C or better.

Courses Required for the Certificate of Accomplishment in Travel and Tourism

Course Units
TRTV 157 Principles of Travel & Tourism ................ 3
TRTV 159 Adv. Principles of Travel & Tourism ............ 3
TRTV 160 Transportation Field Work ....................... 1
TRTV 176 Destinations: Great Trips ......................... 3
MABS 60 Intro to Computer Appl. for Business ........... 3

A minimum of 3 units of the following courses:
TRTV 171A Destinations: Cities I ............................. 3
TRTV 171B Destinations: Cities II ............................. 3
TRTV 172 Destinations: Natural Wonders ................. 3
TRTV 173 Destinations: Historical & Archaeological .... 3
TRTV 174 Destinations: Cruises .............................. 3
TRTV 175 Destinations: Hotels, Resorts, & Spas .......... 3

Total Units ............................................. 16

Travel and Tourism Management Certificate

The Certificate of Accomplishment in Travel and Tourism Management prepares students to work in management in various aspects of the travel and tourism industry. This program is intended to give students experience in the major areas of the travel and tourism
industry and provide them practical exposure to the requirements of management.

Courses Required for the Certificate of Accomplishment in Travel and Tourism Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRTC 157 Prin of Travel and Tourism</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 159 Adv Prin Travel and Tourism</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 180 Ecological Travel</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 181 Business Travel</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 182 Tour Management</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 2 units of any of the following courses:

- TRTC 155 Meeting and Event Planning
- TRTC 160 Transportation Field Work*
- MABS 202 PowerPoint

Total Units: 17

*Repeatable course-max. of 2 units may count towards certificate

Destination Specialist Certificate

Travel and tourism is defined by its destinations. Those professionals who have the greatest knowledge of destinations are those that will have the most opportunity for career advancement. The Destination Specialist Certificate (15 units) is designed to give students a well-rounded background in the important travel destinations of the world.

Learning Outcomes

Students completing this certificate will learn:

- The major types of destinations and the profiles of the travelers that visit them
- How to plan and write itineraries for any destination
- The importance of destination development for the tourism industry around the world

To successfully complete this certificate every class must be completed with a grade of C or better.

Courses Required for the Certificate of Accomplishment in Travel and Tourism: Destination Specialist

A minimum of 15 units of any of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRTC 171A Destinations: Cities I</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 171B Destinations: Cities II</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 172 Destinations: Natural Wonders</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 173 Destinations: Historical &amp; Archaeological</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 174 Destinations: Cruises</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 175 Destinations: Hotels, Resorts, &amp; Spas</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 176 Destinations: Great Trips</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 15

Green and Sustainable Travel Certificate

Green travel and tourism is one of the fastest growing segments of the travel and tourism industry. All companies either have green initiatives in place or are developing them. There is a great need in the industry for workers to understand the requirements of green travel. Students that have completed this certificate will have an advantage when entering the workplace.

Courses Required for the Certificate of Accomplishment in Green and Sustainable Travel:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNBS 125 Green and Sustainable Business</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 172 Destinations: Natural Wonders</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 173 Destinations: Historical &amp; Archaeological</td>
<td>3</td>
</tr>
<tr>
<td>TRTC 180 Eco Travel &amp; Tourism</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units of the following courses:

- TRTC 157 Principles of Travel & Tourism
- TRTC 159 Adv. Principles of Travel & Tourism

Total Units: 15

Announcement of Courses

Accounting

Credit, Degree Applicable Courses:

ACCT 1. Financial Accounting (4) 
Lec-5
Prereq.: ENGL 92 or ESL 72 or 150 or placement in ENGL 93 or 94, or ESL 160
Advise: BSMA 66 or 68
Introduction to the accounting information system and recording and reporting of business transactions with a focus on the accounting cycle, terminology, applications of basic principles and theories, classified financial statements and statement analysis for decision makers. Includes issues relating to Balance Sheet valuations, revenue and expense recognition and cash flows. CSU/UC

ACCT 2. Managerial Accounting (4) 
Lec-5
Prereq.: ACCT 1
Fundamental concepts and applications of managerial accounting techniques in the business world. Cost determination, cost analysis and control, performance evaluation, and the preparation and use of economic information for internal management purposes. CSU/UC

ACCT 10. Introduction to Accounting (4)
Lec-5
Note: ACCT 1 may be elected in lieu of ACCT 10 to satisfy the requirement in any curriculum in business.
Not open to students who have completed or are concurrently enrolled in ACCT 1
Advise: BSMA G, H or J or MATH E; and ESL 140 or Placement in ESL 150
Designed to meet the needs of students in specific occupational programs and as an exploratory course to determine student interest and aptitude for accounting. An introduction to the financial routine of a business office. Emphasis on fundamental principles of double-entry bookkeeping, basic accounting statements, legible handwriting, neatness, and accuracy. CSU
Formerly ACCT 50.

ACCT 21. Introduction to Budgeting for Community Health and Social Service Providers (1)
Lec-1
P/NP available
This course emphasizes key concepts and techniques of budgeting common to social service programs and agencies, including introduction to budgets and budget development, implementation, record keeping, tracking, reporting and cost analysis. The implications of managing funds and the role of ethics will be examined. CSU

ACCT 51. Intermediate Accounting (4) 
Lec-5
Prereq.: ACCT 2
Designed for the student who pursues accounting beyond introductory study. A rapid review of fundamentals, with problems in valuation and presentation of assets, and liabilities, together with a study of analytical
procedures. The course meets the educational requirements to sit for the Certified Public Accountant (CPA) exam as determined by the California State Board. CSU

ACCT 52. Intermediate Accounting (4)
Lec-5
Prereq.: ACCT 51
Continuation of ACCT 51. Problems in stockholders equity, pensions, accounting changes and error analysis, and full disclosure in financial reporting. CSU

ACCT 53. Accounting on the Microcomputer (3)
Lec-3, lab-2
Prereq.: ACCT 10 or ACCT 1
Advise: ACCT 51
Integration of accounting principles and microcomputers in the operation of microcomputer-based accounting systems. Topics include accounts receivable, accounts payable, payroll, general ledger, financial statement analysis, and the comparison, analysis, and use of microcomputer accounting software systems. CSU

ACCT 54. Auditing (3)
Lec-3
Prereq.: ACCT 2
Advise: ACCT 51
The objectives, scope, and history of auditing: the audit program; working papers; internal checking and auditing procedure for balance sheet and profit-and-loss accounts. CSU

ACCT 55. Cost Accounting (3)
Lec-3
Prereq.: ACCT 2
Fundamental accounting procedures covering job order, process, and standard cost systems; budgetary control; direct costing; cost reports for management use. CSU

ACCT 56. Municipal Governmental Accounting (3)
Lec-3
Prereq.: ACCT 1
A study of the general accounting process, terminology, reporting practices, compliance issues, budgeting policies, entities, legal issues, and practice and methods of accounting utilized in municipal entities. CSU

ACCT 57. Accounting with QuickBooks (3)
Lec-3
Prereq.: ACCT 10 or ACCT 1
Instruction in the use of QuickBooks, an integrated computerized accounting system for small business. Topics include new company setup, report preparation, customers and sales, employees and payroll, and purchase transactions. CSU

ACCT 59. Federal Income Tax (3)
Lec-3
Study of the Federal Income Tax Laws: income tax problems and the preparation of income tax returns. CSU

ACCT 59B. California Income Tax (1)
Lec-1
Prereq.: ACCT 59
Study of California State Income Tax, income tax problems, and the preparation of California income tax returns. CSU

Noncredit Courses:

ACBO 9201. Accounting I - Proprietorship and Partnership (90 hrs)
Advise: ESL Level 5/6
Fundamental accounting principles and procedures of a service business organized as a proprietorship or a partnership. Topics include steps in the accounting cycle for a proprietorship and a partnership such as financial statements, ledgers, journals, cash control systems, and bank reconciliations. The integration of Microsoft Excel and QuickBooks is introduced.

ACBO 9202. Accounting II - Corporate (90 hrs)
Advise: ESL Levels 5/6, ACBO 9201
Fundamental accounting principles and procedures of a merchandising business organized as a corporation. Topics include the accounting cycle for a corporation such as financial statements, special journals, ledgers, inventory, payroll, and taxes. The integration of Microsoft Excel and QuickBooks is introduced.

ACBO 9203. Principles of Accounting-Comprehensive (180 hrs)
Advise: ESL Levels 5/6
Fundamental accounting principles and procedures for both a service and merchandising business. Topics include steps in the accounting cycle for a proprietorship, partnership and a corporation such as financial statements, special journals, ledgers, inventory, payroll and taxes. The integration of Microsoft Excel and QuickBooks is covered in this course.

ACBO 9205. QuickBooks Complete (90 hrs)
Advise: ESL Levels 5/6
Through simulated practice for various business entities, students will learn to use QuickBooks Pro to perform and complete simple to complex accounting tasks such as accounts receivable and payable, invoicing, and payroll.

ACBO 9206. Basic Accounting Concepts I (45 hrs)
Advise: ESL Level 6+
Introduction to business accounting principles and concepts. Students will record business transactions in journals and ledgers, prepare balance sheets and income statements using a manual system.

ACBO 9207. Basic Accounting Concepts II (45 hrs)
Advise: ACBO 9206 or equivalent, ESL Level 6+
Emphasis is placed on reconciliation of bank accounts and understanding the distinction between accrual and cash basis accounting. Petty cash and calculating payroll are introduced.

ACBO 9208. QuickBooks: Level 1 (45 hrs)
Advise: ACBO 9201, 9203, 9206 or equivalent, COMP 9245, 9905 or equivalent, ESL Level 6+
Service business accounting for a sole proprietorship and payroll simulations using QuickBooks Pro.

ACBO 9209. QuickBooks: Level 2 (45 hrs)
Advise: ACBO 9201, 9203, 9206, 9207 or equivalent, COMP 9245, 9905 or equivalent, ESL Level 6+
Fundamentals to computerize a manual accounting system using QuickBooks Pro for a partnership type of business. Students use simulated business projects to learn the process.

ACBO 9210. Income Tax Prep: Intro (15 hrs)
Advise: ESL Level 6 or above
Introduction to the basic mechanism of federal individual income taxation, including, but not limited to Form 1040, Sch A, Sch B, Sch C, Sch D, and Sch E.
ACBO 9211. Microsoft Office Accounting-Level 1 (45 hrs)
*Advise: ESL Levels 5/6*
Perform and complete simple to complex accounting tasks such as accounts receivable, accounts payable, end-of-period procedures, and payroll for service businesses utilizing Microsoft Office Accounting (MOA) software.

ACBO 9212. Microsoft Office Accounting-Level 2 (45 hrs)
*Advise: ESL Levels 5/6, ACBO 9211*
Through advanced simulated merchandise practices, students will learn to use Microsoft Office Accounting to perform full-cycle accounting procedures including inventory, taxes, payroll, and setting up a company from a manual accounting system.

ACBO 9213. QuickBooks, A/P, & A/R (15 hrs)
*Advise: ACBO 9206 or Equivalent, COMP 9245, 9905 or Equivalent, ESL Level 6 or Above*
Fundamentals of recording simple accounting transactions in Accounts Payable and Receivable using QuickBooks Pro software. Skills are taught through self-paced modules and projects.

ACBO 9214. QuickBooks: Payroll (15 hrs)
*Advise: COMP 9245, 9905, 9947 or Equivalent ESL Level 6 or Above*
Fundamentals of recording simple accounting transactions in Payroll using QuickBooks Pro software. Skills are taught through self-paced modules and projects.

ACBO 9215. Microsoft Access for Accounting Principles (45hrs)
*Advise: ESL Level 5/6*
Integrating Microsoft Access with principles of accounting. Topics include queries, reports, tables, forms, using Access to track inventory and customer orders, interpreting financial information and payroll.

ACBO 9216. Record Keeping for the Business Office (45 hrs)
*Advise: ESL Level 5/6*
Basic business operations and record keeping skills for office support. Topics include record keeping procedures: cash control systems, analyzing budgets and bank reconciliations. The integration of Microsoft Excel is introduced.

**Credit English**

**Professional English**

BSEN 70. Fundamentals of English Grammar and Composition (4)
Lec-5
*Advise: ENGL 92 or ESL 160 or 82 or Placement in ENGL 93 or 94; or ESL 170*
An intensive review of grammar and punctuation usage. Practice in writing compositions with ideas organized effectively in paragraphs using properly constructed sentences. Practice in applying editing and proofreading skills. CSU

BSEN 74. Business Correspondence (3)
Lec-3
*Advise: ENGL 92 or ESL 160 or 82 or Placement in ENGL 93 or 94; or ESL 170*
Practice in writing business letters and memorandums, and e-mail messages; class discussion on style, structure, and aims of written business communications; experience in using correct, forceful English in business documents. CSU

BSEN 76. Business and Technical Report Writing (3)
Lec-3
*Advise: ENGL 92 or ESL 160 or 82 or Placement in ENGL 93 or 94; or ESL 170*
Practice in techniques of primary and secondary research and in writing informal, formal, and technical reports which describe clearly, solve problems, present ideas persuasively, and evaluate alternatives. Computers and word processing programs are available as writing tools. CSU

**Noncredit Courses:**

BUSG 9901. Business Vocabulary (45 hrs)
*Advise: ESLN 3800*
Helps students with the correct usage of English words in written and spoken communication. Emphasis is on business terms.

BUSG 9903. Introduction to Business English (90 hrs)
Improving grammar and punctuation skills to aid in composing and proofreading business correspondence and other documents. Improving writing skills such as organization, clarity and efficiency.

CMNC 9231. Communication Skills: Interviewing Process (18 hrs)
*Advise: BUSG 9903*
Analysis of communication processes and development of skills in interpersonal and telephone interviewing. Includes practice on standardized employment tests, resumés, and applications.

CMNC 9232. Effective Communication (18 hrs)
Review of the basics of communication including listening, speaking, non-verbal behavior, interpersonal skills, and overcoming barriers in communication.

CMNC 9234. Assessment/Counseling Workshop (18 hrs)
*Advise: BUSG 9903*
Provides career planning information and interest/skills testing for persons pursuing careers in business, governments, or community services.

CMNC 9235. Technical Report Writing (18 hrs)
Focuses on delivering technical information that is logically organized, clearly and concisely expressed, and suited to the reader's needs. Emphasis on planning appropriately; organizing materials; creating sentences which are clear and concise; choosing layout for maximum effectiveness and readability; proofreading and editing effectively.

BOSS 4503. Business English (90 hrs)
*Advise: ESLN 3800*
Development of written communication skills: punctuation, business vocabulary, capitalization, composition of business correspondence, spelling, proofreading, and use of office reference materials.

BOSS 4511. Effective Business Communication (90 hrs)
*Advise: Basic knowledge of word processing. Completion of Business English strongly recommended.*
Students will learn skills and strategies to become more effective writers. These skills provide students with the necessary foundation for continued development and advancement in their careers through improved written communication.
Business Mathematics

Credit, Non-Degree Applicable Courses:
BSMA G. Arithmetic Review and Basic Business Arithmetic (3)
(offered only in the evening)
Lec-3  P/NP only
Required of all business students who do not make a satisfactory score on the City College placement examination in mathematics. BSMA G may be elected in lieu of BSMA H or J. Not open to students who have completed BSMA H or J with a final grade of C or higher, or Credit, or MATH E with a final grade of Credit.
A review of arithmetic and its application to business problems in the fundamental processes; fractions; decimals; percentage; and the principles of problem-solving.

BSMA H. Arithmetic Review and Basic Business Arithmetic (3)
Lec-5  P/NP only
Students who need a thorough review of mathematics should take this course rather than BSMA J to meet first-semester requirements. Counselors may require students to take BSMA H instead of BSMA J.
Not open to students who have completed BSMA G or J with a final grade of C or higher, or Credit, or MATH E with a final grade of Credit.
Students whose score in the City College placement examination in mathematics is extremely low should take this course rather than BSMA J or G. Counselors may require students to take BSMA H instead of BSMA J or G.

BSMA J. Elementary Mathematics (2)
Lec-2  P/NP only
Two hours per week, required in the first semester of all business students who fail to make a satisfactory score in the City College placement examination in mathematics. BSMA H may be selected in lieu of BSMA J. A brief review and application to business problems of the fundamental arithmetic processes, fractions, decimals, percentages, equations, proportions, and the principles of problem solving.

Credit, Degree Applicable Courses:
BSMA 66. Business Mathematics (4)
Lec-5
Advise: Completion of BSMA G, H, or J with a final grade of Credit or MATH E with a final grade of Credit. Not open for credit to students who have completed BSMA 68. BSMA 66 may be elected in lieu of any major requirement for BSMA 68.
A study of gross wages and payroll deductions, trade and cash discounts, markup and markdown, depreciation methods, simple and compound interest, present value and annuities, installment sales, rule of 78, loan amortization, financial statements of different business organizations, inventory methods, insurance, bank reconciliation, and the use of graphs and tables. CSU

BSMA 68. Mathematics of Business (3)
Lec-3
Advise: Completion of BSMA G, H, or J with a final grade of Credit or higher or MATH E with a final grade of Credit. Not open for credit to students who have completed BSMA 66.
A study of gross wages and payroll deductions, trade and cash discounts, markups and markdowns, depreciation, simple and compound interest, present value and annuities, installment sales, rule of 78, loan amortization, financial statements of different business organizations, inventory methods, insurance, bank reconciliation, and the use of graphs and tables. CSU

Commercial Law

Credit, Degree Applicable Courses:
CLW 18. Commercial Law (3)
Lec-3
Prereq.: ENGL 96 or BSEN 70 or placement in ENGL 1A
Not open to students who have completed L A 53A.
The nature, purpose, and sources of law; the historical development of the law and its function with respect to society and business; contracts, agency, personal property and bailments. CSU/UC
CLW 18- L A 53A

CLW 19. Commercial Law (3)
Lec-3
Prereq.: CLW 18 or L A 53A
Not open to students who have completed L A 53B.
Sales, partnerships, corporations, the regulation of business, and negotiable instruments. CSU/UC
CLW 19=L A 53B

Computer Applications for Business

Credit, Degree Applicable Courses:
MABS 25. Keyboarding (1)
Lab-5 (8 wks)  P/NP available
Open to students who have had no previous training in typing. No credit given to students who have passed a course in beginning typing at City College or any other educational institution. Not open to students who have completed WDPR 78.
Development of keyboard control; accuracy, speed, and concentration exercises; equipment operation and care.
Completion requirement: Ability to type by the touch method, 25 words a minute gross in a series of three-minute tests with an average of not more than one error per minute. CSU
Formerly WDPR 78.

MABS 30. Computer Keyboarding (3)
Lec-3, lab-3  P/NP available
Advise: ENGL 90 or ESL 140
Beginning computer keyboarding and desktop computing essentials. Students learn to keyboard by touch, use the 10-key numeric keypad, and apply these skills to professional computer applications. Proper technique is stressed to enhance speed and accuracy. Includes computer hardware and software concepts, ergonomics, word processing, and using Internet Explorer for office tasks. CSU

MABS 35. Speedbuilding: Keyboarding (1)
Lab-5 (8 wks)  P/NP available
Prereq.: MABS 30, 25 or WDPR 78, or the ability to type 25 words a minute for 3 minutes with no more than 3 errors. Repeat: max. 4 units
A review of good typing techniques, manipulation of machine parts, and keyreaches. Emphasis on the development of speed and control. CSU
Formerly WDPR 79.
MABS 38. Keyboarding with Microsoft Word (3)
Lec-3, lab-3
Prereq.: MABS 35 or WDPR 79 or the ability to type 35 words a minute with no more than one error a minute
Advis: ENGL 90 or ESL 72 or 150 or placement in ENGL 92 or ESL 160
Not open to students who have completed WDPR 80
Entering, formatting, proofreading, and revising business documents such as letters, single and multi-page reports, outlines, tables, minutes, and resume using an acceptable office standard using a word processing system. Students also interpret proofreading marks, compose brief office messages, and continue to enhance their keyboarding skills. CSU
Formerly WDPR 80.

MABS 40. Internet Explorer and Outlook Email (3)
Lec-3, lab-3
Advis: ENGL 90 or ESL 140
Use of Internet Explorer to find solutions for common business tasks, and the use of Microsoft Outlook to send and receive e-mails, setup contact lists, maintain a calendar, create appointments, schedule meetings, and more. Efficient search techniques are stressed. Also covered are computer hardware basics and Windows file management. CSU

MABS 60. Introduction to Computer Applications for Business (3)
Lec-3, lab-3
Advis: MABS 25 or MABS 30
Introduction to the concepts and skills of using personal computers for business. Includes fundamental concepts of hardware, the operating system, and the five most frequently used office applications: word processing, electronic spreadsheet, database management, web browser, and e-mail. CSU/UC

MABS 61. Advanced Microsoft Office for Windows (3)
Lec-3, lab-3
Advis: MABS 25 or MABS 30
Introduction to the concepts and skills of using personal computers for business. Includes fundamental concepts of hardware, the operating system, and the five most frequently used office applications: word processing, electronic spreadsheet, database management, web browser, and e-mail. CSU/UC

MABS 67. Database for Business/Access for Windows (3)
Lec-3, lab-3
Advis: MABS 25
Introduction to a relational dynamic database environment using Access for Windows. Experience creating and modifying business databases; data manipulation and retrieval, and report generation. CSU

MABS 68. Microcomputer Applications Laboratory (0)
Lab-10
Coreq: Any Business Department credit or noncredit class
An open laboratory for students who are completing homework assignments for Business Department credit and noncredit classes. Enroll in the lab. CSU

MABS 101. Spreadsheets for Business/Excel (3)
Lec-3, lab-3
Advis: MABS 25 or ability to type 25 wpm; BSMA 66 or 68
Experience in creating, modifying, and printing spreadsheets using Excel software on either IBM-PC compatible or Macintosh computers. Includes creating charts, working with database features, and the use of macros. CSU

MABS 160. Survey of Business Data Processing (3)
Lec-3, lab-0.5
An introduction for business students stressing the principles, terminology, and programming of a business data processing system. The concepts of a management information system, its uses, limitations, and impact on organizations reviewed. An introduction to the programming language BASIC is given by the entering and testing of business problems using computers. CSU

MABS 202. PowerPoint Presentations (3)
Lec-3, lab-3
Advis: MABS 25
Creating business presentations using Microsoft PowerPoint. Topics include planning an effective presentation, developing on-screen slides; inserting tables, pictures, charts and diagrams into slides; and constructing a slide show utilizing animation, transitions, sound, and timings. The design of master slides and templates is also covered. CSU

MABS 301. Novell Network Administration (2)
Lec-2
Basic and fundamental network management tasks are covered in lecture and hands-on lab assignments using a Novell Local Area Network. Includes user support, directory structures, security, backups, menus, mail, and use of file server and workstation utilities. Prepares students to take the Certified Novell Administrator examination. CSU

MABS 302. Novell Administration: Advanced (1)
Lec-1
Advanced network management concepts and tasks using a Novell Local Area Network including: server configuration, management, and maintenance; performance monitoring; accounting; advanced services; network configuration to support other protocols (e.g., TCP/IP and Mac). Prepares to take the Certified Novell examination for this subject. CSU

MABS 391. Word Processing/Microsoft Word (3)
Lec-3, lab-3
Advis: MABS 35 or the ability to type at least 35 words a minute with no more than one error a minute
Advis: ESL 150 or placement in ESL 160
Not open to students who are enrolled in or have completed WDPR 391, 391A or 391B.
Experience creating, formatting, editing, and printing documents on the IBM personal or compatible computer using Word for Windows. Features covered include the spelling and grammar checkers, page numbering, and tables. Advanced features include headers and footers, footnotes, merge features, macros (automatic keystroke repetition), style sheets, newspaper and parallel columns, sorting, and other features as time permits. CSU
Formerly WDPR 391.

MABS 405. Developing Web Sites - FrontPage (3)
Lec-3, lab-3
Advis: MABS 60 (knowledge of Microsoft Windows and Microsoft Office)
Prereq: MABS 35 or the ability to type 35 words a minute with no more than one error a minute
Advis: MABS 60 or MABS 65
Practical instruction in designing and publishing business web pages on the Internet using Microsoft FrontPage. Web sites will include: page division with frames, interactive input forms, tables, hyperlinks, graphics, animated images and multimedia. Exploration of how an enterprise might plan, design, produce, promote, and maintain a business web site. CSU
MABS 406. Developing Web Sites - Dreamweaver (3)
Lec-3, lab-3  P/NP available

Advised: MABS 60
Designing and publishing business web pages on the Internet using Macromedia Dreamweaver. Web sites will include page division with frames, interactive input forms, tables, hyperlinks, graphics, animated images and multimedia. The course will explore how an enterprise might plan, design, produce, promote, and maintain a business web site. CSU

MABS 407. Developing Web Sites - Expression Web (3)
Lec-3, lab-3  P/NP available

Advised: MABS 60
Introduction to creating and maintaining business web pages using Microsoft Expression Web. Includes working with hyperlinks, tables, forms, graphics, and sound. Efficient production methods using style sheets and dynamic web templates are covered. Includes publishing a web site to a server computer connected to the Internet. CSU

WDPR 391A. Beginning Word Processing - Word for Windows (1.5)
Lec-3, lab-3 (8 wks)  P/NP available

Prereq.: MABS 35 or the ability to type 35 words a minute with no more than one error a minute

Advised: ESL 72 or 150 or placement in ESL 160

Not open to students who are enrolled in or have completed WDPR 391.

Experience creating, formatting, editing, and printing documents on the IBM Personal or compatible computers using Word for Windows. Features covered include the spelling and grammar checkers, page numbering, and creating tables with the table feature. CSU

WDPR 391B. Advanced Word Processing - Word for Windows (1.5)
Lec-3, lab-3 (8 wks)  P/NP available

Prereq.: WDPR 391A

Not open to students who are enrolled in or have completed WDPR 391.

Explore Word for Windows’ sophisticated document preparation features on the IBM Personal Computer or a compatible computer. Create documents using headers and footers, footnotes, merge features, macros (automatic keystroke repetition), style sheets, newspaper and parallel columns, sorting, and other features as time permits. CSU

WDPR 431. Desktop Publishing - PC PageMaker (3)
Lec-2, lab-3  P/NP available

Hands-on experience using PageMaker (on IBM-PC compatible computers) to design and build a publication. Students work with graphics and text, design pages, and handle common business and technical writing applications. CSU

Noncredit Courses:
BOSS 2500. Business Math With Spreadsheets I (45–90 hrs)
Advised: HSEN 2267 and ESLN 3500

Use of spreadsheet software to make common business calculations such as discounts, commissions, markup, credit charges, simple and compound interest, and present value.

BOSS 3500. Job Preparation (45 hrs)
Advised: ESLN 3600 or TRST 2321 or placement in ESLN 3700 or TRST 2321; and COMP 9905 or COMP 9245 or COMP 9947; and

WOPR 9486 or WOPR 9990 or WOPR 9991; and COMP 9921 or COMP 9952

Students improve the efficiency of their job search and learn methods for finding work in their field. They also learn to self-assess their strengths, write resumes, cover letters and thank you letters, build interviewing skills, and use the Internet to do company and industry research and locate job openings.

BOSS 3501. Customer Service Skills (15 hrs)
Advised: WOPR 9991 or equivalent, COMP 9921 or equivalent, ESL Level 6+

This course will teach specific skills in effectively dealing with customers and clients to gain new business and retain existing business relationships. It addresses the front-line employee who makes the initial contact with the potential customer/client.

BOSS 3502. Customer Service Principles (45 hrs)
Advised: ESLN 3700 or TRST 2321 or placement in ESLN 3800 or TRST 3331

This course focuses on retaining customers by establishing effective customer service practices. Topics include web-based customer service, electronic communication, the lost customer, customer feedback, and behaviors to satisfy new and existing customers.

BOSS 4500. Business English I (45 hrs)
Advised: ESLN 3800

Development of written communication skills: punctuation, business vocabulary, capitalization, composition of business correspondence, spelling, proofreading, and use of office reference materials.

BOSS 4501. Business English II (45 hrs)
Advised: BOSS 4500 or equivalent, ESLN 3800

Continued development of written communication skills: punctuation, business vocabulary, capitalization, composition of business correspondence, spelling, proofreading, and use of office reference materials.

BOSS 4503. Business English (90 hrs)
Advised: ESL 3800

Comprehensive coverage of written communication skills: business grammar, punctuation, business vocabulary, capitalization, composition of business correspondence, spelling, proofreading, and use of office reference materials.

BOSS 4510. Business Communications (45 hrs)
Advised: BOSS 4500 or equivalent, ESL Level 6+

A lecture-lab course to develop basic writing skills for the business world. Topics in this course include developing meaningful paragraphs, writing opening and closing sentences in letters, and writing good-news letters and bad-news letters.

BOSS 4511. Effective Business Communication (90 hrs)
Advised: Basic knowledge of work processing. Completion of business English strongly recommended

A comprehensive lecture-lab course to develop writing skills for the business world. Topics in this course include business letter and business report writing skills.

BOSS 5500. Keyboarding For Computers (45 hrs)
Advised: ESLN 3400

Students will acquire basic knowledge of the keyboard to interact more efficiently with desktop computers, computer terminals, or electronic communication systems. Instruction covers introduction to the keyboard and development of basic keyboarding skills.
BOSS 5501. Keyboarding: Skill Development (90 hrs)
Keyboarding skill development on computer keyboard with associated software, emphasizing proper technique. Keyboarding drills target individual student deficiencies. The student will develop touch control of the keyboard and proper typing techniques to build basic speed.

BOSS 5502. Clerical Keyboarding (90 hrs)
Advisement: BOSS 5500,5501 or 5503
Emphasis on formatting business documents such as reports, letters, and memorandums. Topics also include skill building for accuracy/speed, practice keyboarding and working in a simulated office and learn the ten-key numeric keypad.

BOSS 5503. Keyboarding - All Levels (180 hrs)
Emphasis on touch control and proper typing techniques to build speed/accuracy. Enhancing keyboarding skills while focusing on formats of business documents such as reports, letters, memorandums and tables.

BOSS 5505. Keyboarding: Quick Course (15 hrs)
Multi-level course serves as either a quick introduction, a quick review of the alphabetic and numeric keys, or a quick speed/accuracy building course. Emphasis on individual student need. Skills taught through instructor-led and/or self-paced instruction.

BOSS 5506. Computer Keyboarding: The Numeric Keypad (15 hrs)
Emphasis on the development and mastery of the numeric keypad on the computer keyboard. Students will learn numeric key location; develop speed and accuracy by touch. This course is ideal for those entering the workforce.

BOSS 5507. Data Entry/10 Key (90 hrs)
Build data entry skills using the ten-key numeric keypad. The use of simulated business projects enhance the learning and development of effective techniques that improve speed and accuracy.

BOSS 5508. Advanced Office Procedures for the 21st Century (45 hrs)
Prerequisite: BOSS 5509
Advanced training in the business office. Topics include ethical and behavioral practices, conducting job searches, coping with stress, strategies for advancement, and performing office procedures in a legal office through a job simulation.

BOSS 5509. Office Procedures for the 21st Century (45 hrs)
Advisement: ESL Levels 5/6
Students learn essential office procedures and competencies in areas such as human relations, developing telephone etiquette and business communications, records management, handling financial procedures, making travel arrangements, planning meetings, and developing oral presentation skills to be successful in the business office.

BOSS 5510. Document Formatting & Production (90 hrs)
Advisement: ESL Level 5/6, BOSS 5500 or Equivalent
Hands-on lab class. Students apply proper formatting procedures to produce error-free business documents such as correspondence, reports and tables using applicable word processing software.

BOSS 5511. Office Procedures for the Construction (45 hrs)
Advisement: ESLN 3600 or TRST 1322 or Placement in ESLN 3700 or TRST 2321
Students learn essential construction office procedures and competencies in areas such as overview of the construction business, business development including sales and marketing, customer service, processing mail, telecommunications, planning meetings and records management.

BOSS 6326. Job Preparation (45 hrs)
Students will develop techniques in getting and holding a job. They will learn how to prepare a resume, locate job openings through newspaper want ads and other courses, as well as how to successfully prepare for job interviews.

CMSP 9241. Introduction to Computers/ABE (90 hrs)
Advisement: TRST 1422, BOSS 5500
A course in basic computer literacy.

COMP 9245. Windows Essentials for MS Office Applications (30 hrs)
Advisement: ESLN 5/6
An introductory course on computer concepts and techniques for the novice computer user. Students will learn basic skills that allow them to work efficiently with the Windows operating system, as well as to manage one's computer system, data, resources, and software applications. Students will learn Internet and E-mail basics, and will get a brief overview of Microsoft Word, Excel, and PowerPoint applications.

COMP 9857. MS Office Business Applications with Simulated Projects (90 hrs)
A comprehensive introduction of Microsoft Office business applications—Word, Excel, Access, and PowerPoint. Students will learn the fundamental features and functions of these applications and apply and/or integrate them to produce real-world business projects.

COMP 9867. Microsoft Excel Essentials 1 (15 hrs)
Advisement: COMP 9905 or Equivalent; ESL Levels 5/6
Microsoft Excel Essentials 1 is an introduction to using spreadsheet software and terminology. Students learn to create, edit, and print spreadsheets. Additionally, students learn to format data, enter labels, use logical and mathematical functions, and create charts from spreadsheet data.

COMP 9869. Computer Lab Orientation (9 hrs)
Advisement: ESLN 3400, BOSS 5500
A hands-on introduction to the hardware, software, operating system and lab procedures.

COMP 9888. Microsoft Excel Essentials III (15 hrs)
Prerequisite: COMP 9895
Advisement: ESL Level 5/6
Students learn enhanced worksheet design for business applications, database management techniques, and creating and executing simple and complex macros, and debugging recorded macros. Students explore analyzing data with PivotTables and PivotCharts.

COMP 9889. Intro to MS Office Applications for Business (90 hrs)
Advisement: ESLN 5/6
Introduction to Microsoft Office Applications for Business is a comprehensive introduction to Microsoft Office applications of Word, Excel, Access, and PowerPoint, preceded by a brief overview of basic computer concepts and history. A brief introduction to Windows operating system and Outlook are included.

COMP 9894. Microsoft Access Essentials I (15 hrs)
Advisement: COMP 9905 or Equivalent; ESL Levels 5/6
Microsoft Access Essentials I is an introduction to using database software and terminology. Students learn to create the structure of the
database, create tables, queries, forms, and reports. Additionally, students learn to create relationships between tables, modify tables, design and establish query criteria, and customize forms and reports.

COMP 9895. Microsoft Excel Essentials II (15 hrs)  
**Prereq.:** COMP 9867  
**Advise:** ESL Level 5/6  
Students learn how to design advanced formulas and functions, basic Excel charting concepts, and techniques for handling multiple worksheets. Students explore 3D worksheets concepts, advanced printing features, inserting graphics images on worksheets, and adding SmartArt to worksheets.

COMP 9896. Microcomputers - Individual Projects (45 hrs)  
**Advise:** Completion of at least one 45 hour applications course or equivalent experience  
Students will undertake individual projects using micro applications such as word processing, spreadsheets, databases, and desktop publishing. Projects will be individualized or worked on in teams and will be determined in consultation with the instructor. Students will learn strategies and problem solving techniques related to practical applications including importing and exporting files between any two programs.

COMP 9899. Desktop Publishing for Business I (45 hrs)  
**Advise:** ESL 6+, COMP 9245, or COMP 9905, or COMP 9889  
This course introduces the students to the basis of desktop publishing for business using such programs as Microsoft Publisher or Adobe InDesign. Students will create business documents for print or electronic distribution including slide shows, business forms, charts, office stationary, flyers, Web publications, and PDF documents.

COMP 9900. Microsoft Excel for Business I (45 hrs)  
**Advise:** ESLN 5/6  
A comprehensive introduction to using spreadsheet software to solve business problems. Students learn to set up, format, save and print spreadsheets. Additional topics include using logical and mathematical functions and creating graphs from spreadsheet data.

COMP 9901. Microsoft Access for Business I (45 hrs)  
**Prereq.:** COMP 9905  
**Advise:** ESL Level 5/6  
Students learn database design guidelines to create the structure of the database, which allows them to create tables, queries, forms, and reports. Students learn to edit tables, design and establish query criteria, and customize forms and reports.

COMP 9902. Graphics for Business (45 hrs)  
**Advise:** ARE 3088; ESLN 3500; COMP 9245  
Students learn to prepare and present business information in graphic form. Pie, bar, text and other charts are created using appropriate software, with emphasis on selecting appropriate graph formats to increase visual impact.

COMP 9903. Software Update (15 hrs)  
**Advise:** Windows OS Basics, ESL Level 6 or above  
An overview course that introduces students to the basic features of current business software, including, but not limited to Microsoft Office XP products (word processing, spreadsheets, databases, electronic presentations), Internet and E-mail, computerized accounting, business graphics or desktop publishing software, Web authoring and animation software, and business multimedia software.

COMP 9904. Microsoft Excel for Business II (45 hrs)  
**Advise:** ESLN 5/6  
A comprehensive course providing proficiency in using spreadsheet software to solve business problems. Students learn enhanced worksheet design for business applications, database management techniques, and creating and executing simple and complex macros.

COMP 9905. Intro to Windows for MS Office Applications (45 hrs)  
**Advise:** ESLN 5/6  
An introduction to computer concepts and techniques for beginning computer students. Students will learn to use the Windows operating system to organize and manage data, resources and Office applications. A brief introduction of the Office applications: Word, Excel, PowerPoint, and Access, and a unit on Internet and E-mail is included.

COMP 9906. Microsoft Access Essentials II (15 hrs)  
**Prereq.:** COMP 9894  
**Advise:** ESL Level 5/6  
Students learn how to create reports and forms and use the Report Wizard and the Forms Wizard. Students learn to use macros, design a switchboard, and about PivotTables and PivotCharts.

COMP 9907. Desktop Publishing for Business II (45 hrs)  
**Advise:** ESL 6+, COMP 9245, or COMP 9905, or COMP 9889  
This course further develops the concept of desktop publishing for business by enhancing office publications and making them interactive using such programs as Microsoft Publisher and Adobe InDesign. Students create templates, learn power shortcuts, create a business office newsletter, make interactive slide presentations, add effects, and work with Acrobat Professional.

COMP 9908. Micro Applications - Current Topics (45 hrs)  
**Advise:** TRST 4601 or ESLV 3821; BOSS 5500 or 25 net wpm keyboarding; Any hands-on introductory computer course of at least 27 hours or equivalent experience  
Use of the latest state-of-the-art microcomputer software and its application to business and office procedures. Students work with industry-specific software or explore new features in the latest version of an older software release. Taught-hands-on in a computer lab. Course content varies.

COMP 9909. Microsoft Excel for Business III (45 hrs)  
**Prereq.:** COMP 9904  
**Advise:** ESL Level 5/6  
Students learn enhanced worksheet design for business applications, database management techniques, creating and executing simple and complex macros, and debugging recorded macros. Students analyze data with PivotTables and PivotCharts.

COMP 9910. Microsoft Access for Business II (45 hrs)  
**Prereq.:** COMP 9901  
**Advise:** ESL Level 5/6; COMP 9905  
Students create custom reports and forms, use the Report Wizard and the Forms Wizard, and create search criteria for performing searches, queries and sorts. Students learn to use macros, design a switchboard, and about PivotTables and PivotCharts.

COMP 9911. Microsoft Access for Business III (45 hrs)  
**Prereq.:** COMP 9910  
**Advise:** ESL Level 5/6; COMP 9905  
Students create design forms and reports using design view and create subforms and subreports. Students learn to use advanced form techniques.
COMP 9912. PC Upgrade and Optimization (15 hrs)
**Advise: Windows OS Basics, ESL Level 6 or above**
An overview course that introduces students to the basic concepts of computer components, preparing a hard disk for installation of Windows XP, installation of Windows XP, installing and uninstalling application software, installing device drivers, installation and use of antivirus, spyware and firewall software.

COMP 9913. Microcomputer Lab (90 hrs)
An open laboratory in which students may complete their microcomputer assignments or word processing assignments.

COMP 9914. Desktop Publishing - Advanced (45 hrs)
**Advise: COMP 9907**
Setting type to specifications and learning specialized features such as marking text and graphics for printing spot color overlays, automatic table of contents generation and automatic index generation. Individual projects.

COMP 9917. Building Individual Web Sites (45 hrs)
**Advise: Completion of beginning word processing, spreadsheet, and database courses and at least one intermediate word processing, spreadsheet or database course**
Integrating the individual applications and services contained in Office 97 into a functional unit for building custom solutions to business problems, individually, in a workgroup, and on the Web, using readily available Office 97 capabilities such as data access, reporting, and analysis, information publishing, messaging and query operations, document collaboration, and macros.

COMP 9918. Building Business Web Sites (45 hrs)
**Advise: Completion of at least one word processing, spreadsheet, or database course**
Using the Internet for business information gathering and dissemination. Designing, maintaining, and publishing business web sites. Creating web pages and Internet business applications using FrontPage and Office 97.

COMP 9919. Using Dreamweaver for Basic Business Web Pages (45 hrs)
**Advise: COMP 9245, COMP 9905, or COMP 9889, ESL Level 6 or above**
Individualized and instructor-led instruction in the use of web authoring tools used to create a personal or business website using Adobe Dreamweaver. Beginning through intermediate skills are taught through self-paced modules and projects; e.g. new site creation, editing, and maintaining the site, image and text insertions and using tables.

COMP 9920. Using SharePoint Designer (Expression Web) for Basic Web Pages (45 hrs)
**Advise: Windows OS Basics, ESL Level 6 or above**
This is a hands-on, interactive course with instruction in Microsoft SharePoint Designer (Expression Web) web authoring tool to create a personal or business website. Beginning, through intermediate skills are covered through self-paced modules and projects. Topics include new site creation, editing, and maintaining the site, image and text insertions, publishing a site, and using tables, frames and forms.

COMP 9921. Intro to the Internet for Office Support (45 hrs)
**Advise: Windows OS Basics, ESL Level 6 or above**
Hands-on and project-oriented instruction in the use of the Internet via a browser is provided for the office/business professional or other serious personal computer user. Topics covered include services and tools available on the Internet and World Wide Web, browser features, navigating through the Web, e-mailing, and identifying useful sites for office/business professionals.

COMP 9922. Flash for Bus/Office Presentations (45 hrs)
**Advise: COMP 9925, 9245, 9905 or equivalent, ESL Level 6+**
Introduces business office students to the basic concepts of business presentations using Flash. Business students learn introductory techniques in creating storyboards, animated slide shows, ad banners, and Web pages. Students are also introduced to basic publishing concepts for viewing their work in the Flash Player and creating CD-ROMs.

COMP 9928. PowerPoint for Business (45 hrs)
**Advise: Windows OS Basics, ESL Level 6 or above**
Instruction in the fundamentals of PowerPoint, the presentation graphics application of Microsoft Office. It is designed for the office/business professional or other serious computer user. Topics include creating a PowerPoint slide show, adding visuals to enhance a slide show, customizing a presentation, and delivering a presentation.

COMP 9932. Excel for Accounting Principles (45 hrs)
**Advise: ACBO 9203, Windows OS Basics, ESL Level 6 or above**
Instruction in the utilization of Microsoft Excel (spreadsheet software) as it relates to accounting principles. Students will have practice in formatting, formulas, and functions, charts/graphs, worksheet manipulation, database and macro commands.

COMP 9933. Building Business Web Pages with Adobe Web Standard-Level I (45 hrs)
**Advise: Windows OS Basics, ESL Level 6 or above**
Hands-on instruction using a step-by-step and/or a project-oriented approach to developing a business web site using Adobe Web Standard Software with core functions in Dreamweaver, Fireworks, Flash, and ColdFusion. An online marketing or product information online interface would be developed.

COMP 9934. Building Business Web Pages with Adobe Web Standard-Level II (45 hrs)
**Prereq.: COMP 9933 or COMP 9919 or COMP 9918 or equivalent**
**Advise: COMP 9933 or equivalent, Windows OS Basics, ESL Level 6 or above**
Hands-on instruction using a step-by-step and/or a project-oriented approach to familiarizing students with Adobe Web Standard and Web Content Management Software for the development of dynamic, interactive eBusiness web applications. Emphasis is on software functions without programming.

COMP 9935. Business Web Graphics (45 hrs)
**Advise: Windows OS Basics, ESL Level 6 or above**
Hands-on instruction using a step-by-step and/or a project-oriented approach to creating web graphics using Adobe web authoring tools such as Fireworks, Flash, and Photoshop Elements. Topics include graphic layout, backgrounds, rollovers, banners, and navigational elements; digitizing media and image optimization.

COMP 9936. Using Outlook for Office Support, Level I (45 hrs)
**Advise: Windows OS Basics, ESL Level 6 or above**
A hands-on lecture and lab course that introduces Outlook-Microsoft's desktop information management application. Topics include e-mail basics, creating a personal schedule, task list and a contact list using Outlook's features of Contacts, Calendar, Inbox, and Tasks.
COMP 9937. Using Outlook for Office Support, Level II (45 hrs)
Advised: COMP 9936, Windows OS Basics, ESL Level 6 or above
Interactive instruction in intermediate desktop management skills that reinforce concepts taught in COMP 9936. New topics include searching for messages; setting and removing filters on messages, using message formats, stationery, and delivery options to customize messages; learning how to export personal folders onto a floppy disk and later import subfolders for further updating; archiving mail messages; and creating unique e-mail signatures for multiple accounts.

COMP 9938. Publisher for Business Desktop Publishing (45 hrs)
Advised: Windows OS Basics, Keyboarding, ESL Level 6 or above
A lecture and lab course in which students learn beginning through intermediate desktop publishing skills to create professional publications in business such as advertising flyers, newsletters, tri-fold brochures, and business cards using Microsoft Publisher. Topics include creating and editing a publication, newsletter and brochure design and development, personalizing and customizing publications with information sets, and creating business forms and tables.

COMP 9940. Excel Special Topics - Beyond Advanced (45 hrs)
Advised: COMP 9909, Windows OS Basics, ESL Level 6 or above
A course designed for the office/business professional or other serious computer user to provide topics beyond the advanced level in Excel, the spreadsheet application of Microsoft Office. Topics include creating macros, formula auditing, data validation, using Solver, Scenario Manager, Pivot Tables, and Pivot Charts.

COMP 9941. Simulated Projects for MS Office Self-Paced (45 hrs)
Advised: COMP 9909, 9910, 9921, 9928, 9936; WDPR 9995, or equivalent; ESL Level 6 or above
A self-paced office projects course geared to enhance one's working knowledge of Microsoft Office Suite applications. Students will complete real-world simulated projects requiring the use of Microsoft Word, Excel, PowerPoint, Outlook and Access, or any integration of the products. Students will analyze real-world business problems and then apply appropriate media and strategy solutions, utilizing the Internet, multimedia and graphics to enhance document design, layout, functionality, and appearance.

COMP 9942. Microcomputer Lab (45 hrs)
An instructor-supervised computer lab for currently-enrolled Business Department students. Students will work independently on assignments given in other Business Department computer classes.

COMP 9943. Special Projects Using Publisher (45 hrs)
Advised: COMP 9938 or equivalent; ESL Level 6
Create publications from topics related to the business world using MS Publisher software. Projects may include flyers, newsletters, brochures and other topics.

COMP 9944. Acrobat for Bus/Office (45 hrs)
Advised: COMP 9245, 9905 or equivalent; ESL Level 6+
An introductory course teaching the business office students to create business documents and presentations as Portable Document Format (PDF) files. Business students will learn to use these basic techniques for distribution of electronic documents in an office environment and on the web.

COMP 9947. Windows Folder and File Concepts (15 hrs)
Advised: ESL Level 5/6 or above
Fundamentals of efficient management of electronic files/folders in a business office. Students learn the concepts of creating, viewing and navigating through levels of folders for file storage on the hard drive and flash drives.

COMP 9948. Acrobat Bus/Office Doc Conversion (15 hrs)
Advised: COMP 9245, 9905 or equivalent, ESL Level 6+
An introductory course teaching the business office students to convert business documents, such as word documents, spreadsheet files, and Web pages to Portable Document Format (PDF) files. PDF files allow individuals in a business office environment to create a more secure format for document exchange.

COMP 9949. Dreamweaver I (15 hrs)
Advised: COMP 9245, 9905, 9947 or equivalent, ESL Level 6+
A hands-on course using a step-by-step approach to web page development. Students tour the interface, define a site, create a simple template, create files and folders, insert text and images, create links, insert and modify tables.

COMP 9950. E-mail Writing (5 hrs)
Advised: ESL Level 6 or above
Provides the students with hands-on instruction in establishing an e-mail account and practicing transmitting and receiving e-mail messages.

COMP 9951. PowerPoint (15 hrs)
Advised: COMP 9942, 9905, 9947 or equivalent, ESL Level 6+
Instruction in the fundamentals of PowerPoint, the presentation graphics application of Microsoft Office. The course is designed for the office/business professional and other computer users. Topics include creating and editing a PowerPoint slide show, adding visuals to enhance a slide show, customizing a presentation, and delivering a presentation.

COMP 9952. Internet and E-mail for the Business Office (15 hrs)
Advised: COMP 9942, 9905, 9947 or equivalent, ESL Level 6+
Introductory overview course to provide familiarity of the Internet using a browser. Designed for the office professional or other serious computer user. Topics covered include an introduction to the Internet network, browser features, navigating the Web, and identifying useful sites for office professionals.

COMP 9956. Introductory Flash for the Bus/Office (15 hrs)
Advised: COMP 9925, 9905 or equivalent, ESL Level 6+
Introductory course in Flash for the Bus/Office is designed for business students on how to use Flash to create files that can be imported in PowerPoint presentations and for use on the Web. Information obtained in this short course will enable the business student to quickly produce a basic presentation for office use.

COMP 9957. Photoshop Elements I. (15 hrs)
Advised: COMP 9245, COMP 9905, or equivalent; ESLN 5/6
Photoshop Elements, Level I, is a basic introduction to photograph imaging. Students are introduced to editing images and digital photographs, opening, viewing, and saving image files. Students will learn to enhance photographs, print and share images.

COMP 9958. Photoshop Elements II (15 hrs)
Advised: COMP 9245, COMP 9905, or equivalent, COMP 9957; ESLN 5/6
Photoshop Elements, Level II is second-level introductory course to photograph imaging; a continuation of COMP 9957. Students will be introduced to filters, selection techniques, layer management, layer styles and painting effects used to edit images and digital photographs.
that can later be placed in business and personal publications and web pages.

COMP 9959. Photoshop Elements (45 hrs)
Advisement: COMP 9245, COMP 9905, or equivalent; ESLN 5/6
This course teaches students the fundamentals of Photoshop Elements as it applies to business publications and personal/business web pages. Students are introduced to editing images and digital photographs, opening, viewing, and saving image files. Students will learn to enhance photographs, print and share images.

COMP 9964. Microsoft Outlook Essentials (15 hrs)
Advisement: COMP 9905, ESL LEVEL 5/6 or above
Hands-on lecture/lab introduces the business student to the basics of Outlook—Microsoft's desktop information management application. Students will explore the basic concepts of using Outlook for email; create contact lists, task lists, calendars, and appointments.

COMP 9965. OpenOffice for Business I (45 hrs)
Advisement: ESL 6+, COMP 9245, or COMP 9905, or COMP 9889
Students will learn to create business documents with Writer, presentations with Impress, graphs with Gallery and Draw, as well as create business documents for the web. Students will be able to download, install, and use OpenOffice free of charge on their personal computers.

COMP 9966. OpenOffice for Business I (45 hrs)
Advisement: ESL 6+, COMP 9245, or COMP 9905, or COMP 9965
Students will learn to create business spreadsheets with Calc, databases with Base, graphs with Gallery and Draw, as well as create business documents for the web. Students will be able to download, install, and use OpenOffice free of charge on their personal computers.

COMP 9967. Google Apps for Business I (45 hrs)
Advisement: ESL 6+, COMP 9245, or COMP 9905, or COMP 9889
Google Apps for Business I is a hands-on lecture and lab course that introduces students to free Web-based email, time management, Web page creator, and file collaborative tools. Students learn basic concepts of emailing; create multiple calendars and Web pages to plan meetings and activities; and collaborate on business projects in real-time.

COMP 9968. Google Apps for Business II (45 hrs)
Advisement: ESL 6+, COMP 9245, or COMP 9905, or COMP 9889
Google Apps for Business II is a hands-on lecture and lab course that introduces students to free Web-based word processor, spreadsheet, presentation, and web page development tools. Students will create, edit, and upload/download web documents while collaborating in real-time with other users.

COMP 9969. Dynamic PowerPoint for Business (45 hrs)
Advisement: ESL 6+, COMP 9245, or COMP 9905, or COMP 9889
A hands-on business lecture and lab course introduces business students to the concepts of flow charting. Students learn to create workflow diagrams, streamline business processes, track project and resources, chart organizations, and create business diagrams.

COMP 9971. Microsoft Visio for Business (45 hrs)
Advisement: ESL 6+, COMP 9245, or COMP 9905, or COMP 9889
A hands-on business lecture and computer lab course introducing business students to the concepts of flow charting. Students learn to create workflow diagrams, streamline business processes, track project and resources, chart organizations, and create business diagrams.

COMP 9972. Microsoft Office Project for Business (45 hrs)
Advisement: ESL 6+, COMP 9245, or COMP 9905, or COMP 9889
This hands-on business lecture and lab course covers Microsoft Office Project, a standard in project management software. Business students learn to use the software to manage projects more efficiently and effectively. Topics include business project planning and set-up, project schedule, communicating project information, assigning resources and costs, tracking progress and closing the project.

COMP 9975. Microsoft Office Applications I (45 hrs)
Advisement: COMP 9905, COMP 9952, and COMP 9947 or equivalent; ESL LEVELS 5/6
An introduction to Microsoft Office applications in Word, Excel, Access, and PowerPoint. Topics include Microsoft Office basics, formatting business letters, creating and editing worksheets and databases, PowerPoint presentations, and additional hands-on simulated projects.

COMP 9976. Microsoft Office Applications II (45 hrs)
Advisement: COMP 9975 or equivalent; ESL LEVELS 5/6
An intermediate level course of Microsoft Office applications in Word, Excel, Access, and PowerPoint. Topics include creating a flyer and table in Word, analyzing data in Excel, creating forms and queries in Access, and building a PowerPoint presentation with animation, tables, and charts. The integration of Microsoft Office application is introduced.

WOPR 9486. Microsoft Word for Business I (45 hrs)
Prereq.: COMP 9905
Advisement: ESL LEVEL 5/6
Students learn to create, format, edit, and save business documents using Word tools. Topics include themes, tables, graphics, and managing and printing documents.

WOPR 9487. Word: Tables (5 hrs)
Advisement: COMP 9245, 9905 or equivalent, WOPR 9486, 9991 or equivalent, ESL LEVEL 6+
Introduces intermediate and advanced concepts of Microsoft Word Table feature. Advanced skills are taught through instructor-led and self-paced instruction.

WOPR 9488. Word: Templates and Forms (5 hrs)
Advisement: WOPR 9486 or equivalent, ESL LEVEL 6+
Course introduces advanced concepts of Microsoft Word’s Templates and Forms features. Create customized documents such as letters, envelopes and reports. Advanced skills are taught through instructor-led and self-paced instruction.

WOPR 9490. Word Processing (Multi-Level) (90 hrs)
Advisement: BOSS 4503, BOSS 5503
Identification and use of equipment typical of a word processing center. Operation of text-editing equipment to create, store, edit, and print various types of documents suitable for personal use.

WOPR 9991. Microsoft Word Essentials I (15 hrs)
Advisement: ESL LEVELS 5/6
Beginning Microsoft Word focusing on fundamental word processing skills as required in a business office. Students learn to prepare, format, maintain documents, create tables, insert pictures and objects.

WOPR 9993. Microsoft Word Essentials II (15 hrs)
Advisement: ESL LEVELS 5/6, WOPR 9991
An intermediate Microsoft Word course which includes more
advanced methods of customizing paragraphs and pages, merging documents, automating and customizing formatting, customizing themes and formatting using styles.

**FIN 138. Principles of Investment (3)**
Lec-3  
P/NP available  
The principles and practices in the investment field and successful investment policies for the individual investor. The risks and problems in establishing an investment program, sources of investment information, and tools utilized in security and market analysis. An analysis of the securities markets, investment companies, mutual funds, and individual stocks and bonds. CSU

**FIN 136. Introduction to Financial Planning (3)**
Lec-3  
An introduction to budgeting, spending management, credit usage, insurance’s role in financial planning, investment alternatives, tax implications in financial management decisions, and the establishment of retirement plans. CSU

**FIN 133. Money and Banking (3)**
Lec-3  
P/NP available  
The nature and significance of money in both a historical and contemporary sense. Emphasis on the commercial banking process and the Federal Reserve. Financial institutions other than commercial banks; international payment problems. CSU

**General Business**

**Credit, Degree Applicable Courses:**

**GNBS 119. Introduction to Business (3)**
Lec-3  
This course emphasizes the role of enterprise in society and the international nature of business. For some, this course will be their only exposure to business; others will go on to additional training, education, and specialization with transfer to upper-division institutions in business and other fields. CSU/UC

**GNBS 120. Business Ethics (3)**
Lec-3  
P/NP available  
Advise: ENGL 92 or ESL 150 or placement in ENGL 93 or 94; or ESL 160  
An examination of business ethics from the 1990s to the present, with an emphasis on what may have caused key members of the business community to lie, cheat, and steal. This course will focus on the process of making ethical decisions in a business environment. Case studies will be drawn from real-life examples of ethical failures and successes. CSU/UC

**GNBS 125. Green and Sustainable Business (3)**
Lec-3  
P/NP available  
Advise: ENGL 92 or ESL 160; or placement in ENGL 93 or 170  
The course examines the environmental profiles of the major business segments. Learn the major concepts of green business including natural capitalism, the costs and benefits of green business, and how green technologies can improve competitiveness and profitability. CSU

**GNBS 127. Green & Sustainable Organizational Practices (3)**
Lec-3  
P/NP available  
This course examines the environmental impact of the functional areas of an organization and focuses on applying models for sustainability. Learn to apply important tools including triple bottom line accounting, natural capitalism, social responsibility, and applying ‘just in time’ principles in a business environment. CSU
Noncredit Courses:
CIST 9830. Employment Testing (2.4 hrs)
Designed to improve test-taking skills required for specific employment and civil service examinations at entry and advanced levels.

CIST 9831. Test-Taking Techniques (17.5 hrs)
Information, methods, and techniques for developing skills needed in written and oral examinations. Topics include techniques for taking multiple-choice examinations; reading rapidly with improved comprehension; solving word problems involving business math; working with analogies; understanding charts, tables, and graphs; handling oral examinations; and practice in examination situations.

International Business

Credit, Degree Applicable Courses:
INTR 162. Survey of International Business (3)
Lec-3
A comprehensive overview of international business, including a global perspective of international trade, foreign investments, impact on financial markets, international marketing, and the operation of multinational corporations. CSU

INTR 163. International Marketing (3)
Lec-3
Concepts and principles of international marketing through the use of practical examples and actual case studies of international marketing organizations. Studies include: international marketing position of the United States, market entry strategy, analysis of foreign markets, culture and marketing, product design, pricing, distribution, promotion, and sales. CSU

INTR 166A. Letters of Credit (0.5)
Lec-1 (3 wks)
Methods of structuring, negotiating, and processing letters of credit, discussing costs and defining fees involved. Rights and obligations of the bank, the customer, and the beneficiary are examined, including sources of technical advice, typical problems, payment arrangements, and ways of working with the bank's international division. CSU

INTR 167. International Law (3)
Lec-3
Introduction to the legal aspects and ramifications of international trade topics including multinational enterprises, sovereignty, technology transfer, arbitration, negotiation, and diplomacy. CSU

INTR 170. International Finance (3)
Lec-3
An in-depth examination of the process of international banking and financial transactions. Case studies will emphasize techniques, terminology, philosophies, and various successful as well as unsuccessful approaches to international export-import financing. Special focus will be given to preparing small and medium-sized business enterprises to compete in a global environment. CSU

INTR 172. International E-Business: Resources and Tools (3)
Lec-3  P/NP available
A practical exploration of conducting successful international business using the tools and resources of today's Internet, including E-commerce marketing, product and trade data access, search engines, web site alternatives, transportation tracking, governmental resources and assistance, electronic submission of customs documentation, electronic payments, Internet software tools and business related hardware options. CSU

INTR 173. Export-Import (3)
Lec-3
A comprehensive examination of the process of international Export and Import practices. The course includes techniques, terminology, philosophies, and various approaches to international export-import business. Special focus will be given to preparing small and medium-sized business enterprises to compete in a global environment. (Please note that students that have taken either INTR-164A or INTR-165A are not eligible to take this course.) CSU

INTR 175. Business Practice: Vietnam (2)
Lec-2  P/NP available
A course covering the current business environment in Southeast Asia with a focus on Vietnam, including legal developments, infrastructure issues, policy changes, trade agreements and labor practices. CSU

INTR 176. Business/Culture: Vietnam (3)
Lec-3, field trips  P/NP available
A course exploring Vietnamese culture and its impact on business. Subjects include history, aesthetics, communication, social structures, and customs. This course will create a context for doing business in Southeast Asia. CSU

INTR 176 = ASIA 176

Noncredit Courses:
INTR 9456. Export/Import Shipping and Insurance (3 hrs)
An introduction to shipping exports via air and sea and to obtaining the necessary insurance.

INTR 9457. Export/Import Marketing (3 hrs)
An introduction to international marketing. Identification and evaluation of markets abroad. Developing a marketing strategy.

INTR 9458. Export/Import Financing (3 hrs)
An overview of the various methods of receiving payment for export sales, the types of financing available through commercial banks, letters of credit, and government assistance programs.

INTR 9459. Export/Import Basics (3 hrs)
An overview of the import/export process including comparison of domestic and international transactions, methods and sources of market research, assessment of product import/export potential, and assistance available from various government agencies.

INTR 9460. Export/Import Documents (3 hrs)
An examination of the simultaneous flow of documents, goods, and payments in an export or import transaction, and an explanation of the various documents which may be required. Practice in the preparation of the most commonly used documents.

INTR 9480. International Business (18 hrs)
Advises: ESLN 3500
A survey of the methods, problems and environments of selected trading partners. Covers exporting, importing, finance, investment, human resources, culture and marketing as applied to world trade. Various regions may be emphasized by arrangement.

INTR 9773. U.S. Trade Competitiveness (3 hrs)
A discussion of the causes and possible remedies for the current U.S. trade imbalance.
INTR 9785. U.S. Trade with Asia Part I (Japan and South Korea) (3 hrs)
An analysis of trade relationships between U.S. and Japan and the U.S.
and South Korea. Identification of current problems, future trends and
prospects. Particular emphasis will be focused on U.S. trade competi-
tiveness, marketing, cultural dimensions, business negotiating, and

INTR 9786. U.S. Trade with the Americas (3 hrs)
An overview of the trade relationships between U.S. and the other
countries of the western hemisphere.

INTR 9787. U.S. Trade with African Countries (3 hrs)
An overview of the trade relationships between the U.S. and the coun-
tries of Africa.

INTR 9790. U.S. Trade with Asia Part II (China, Hong Kong and Taiwan) (3 hrs)
An analysis of trade relationships between the U.S., China, Hong Kong
and Taiwan. Identification of current problems, future trends and
prospects. Particular emphasis will be focused on U.S. trade petitive-
ness, market development, cultural perceptions and practices, business
negotiating, and bilateral trade agreements.

INTR 9791. U.S. Trade with Western Europe (3 hrs)
An analysis of U.S. trade relationships with the countries of western
Europe. Particular attention will be paid to the impact of the European
Union on U.S. trade potential.

INTR 9792. U.S. Trade with Eastern Europe (3 hrs)
An analysis of U.S. trade with East Europe and the countries of the
former Soviet Bloc, and an assessment of future trends.

INTR 9793. U.S. Trade with the Middle East (3 hrs)
Assess the state of U.S. trade with the countries of the Middle East and
evaluate future prospects.

INTR 9794. Developing the International Business Plan (3 hrs)
Analysis and preparation of international business and marketing
plans.

INTR 9795. International Bids, Proposals (RFPs) and Tenders (3 hrs)
Assess and evaluate international bids, proposals and tenders. Identify
the essential elements and steps in preparing a winning proposal.

INTR 9796. International Trade Agencies and Agreements (3 hrs)
Analysis and review of the role of International Monetary Fund, World
Bank, and World Trade Organization. Examination of trade agree-
ments such as NAFTA and the European Union and their effect on
U.S. import/export trade.

INTR 9797. U.S. Trade with Asia Part III (Southeast Asia) (3 hrs)
An analysis of trade relationships between the U.S. and Japan and the
U.S. and South Korea, identification of current problems, future trends
and prospects. Particular emphasis will be focused on U.S. trade com-
petitiveness, marketing, cultural perceptions and practices, business
negotiating, and bilateral trade agreements.
relationship between paralegal and attorney, legal terminology, and substantive areas of law. CSU

PLS 2. Legal Research and Writing I (3)
Lec-3
Prereq.: ENGL 96 or placement in ENGL 1A
Basic techniques of writing including review of grammar, spelling and word usage, sentence structure, basic writing, punctuation, capitalization and oral and electronic communication skills as they relate to the legal field. CSU

PLS 3. Legal Research and Writing II (3)
Lec-3
Prereq.: PLS 1 AND 2
Students will learn the proper techniques of researching primary and secondary authorities of law. Students will receive extensive practice in the techniques of writing legal memoranda. CSU

PLS 4. Litigation I (3)
Lec-3
Prereq.: PLS 1, 2, AND CLW 18; AND COMPLETION OF OR CONCURRENT ENROLLMENT IN PLS 3
Introduction to civil litigation process from client interview through appeal, including drafting of various litigation documents. This course will deal mostly with California civil procedure, although reference to federal civil procedure may occasionally be made. CSU

PLS 5. Litigation II (3)
Lec-3
Prereq.: PLS 3, 4 AND CLW 18
In the investigation segment, students study case intake, investigation of facts, effective witness interviewing, and investigation of opponent’s claims. In the discovery segment, students prepare interrogatories, requests for production of documents, requests for admission, and other discovery documentation. In trial preparation, students learn how paralegals assist in trials. CSU

PLS 6. Law Office Management and Procedures (3)
Lec-3
Prereq.: PLS 1, 2, 3, 4, CLW 18, AND MABS 60 (OR DEMONSTRATION OF MABS 60 EXIT SKILLS)
Topics include law office management systems, personnel management, accounting, and operations. Students receive hands-on training in the use of law office equipment and in the preparation of legal documents and correspondence. PLS 6 is the Capstone course for the paralegal degree and certificate. CSU

PLS 7. Corporate Law (3)
Lec-3
Prereq.: PLS 3 AND CLW 18
This course covers legal aspects of various business enterprises, including corporations, sole proprietorships, partnerships, and joint ventures. The emphasis is on common procedural and organizational aspects, legal issues, and the role of the attorney and the paralegal in approaching these issues. CSU

PLS 8. Tort Law and Claims Investigation (3)
Lec-3
Prereq.: PLS 3 AND CLW 18
The law of torts and its application, including a survey of the substantive law of torts; procedures for case analysis, interviewing clients and witnesses, discovery techniques; liability insurance; the paralegal’s role prior to and at the time of trial. CSU

PLS 9. Wills, Trusts, and Probate Administration (3)
Lec-3
Prereq.: PLS 3 AND CLW 18
This course teaches the fundamental principles of the law of wills and trusts, including simple will and trust forms; the organization and jurisdiction of a California probate court; the administration of estates in California probate courts, including gift inheritance, and estate taxes. CSU

PLS 10. Environmental Law (3)
Lec-3
Prereq.: PLS 3 AND CLW 18
This course will cover the fundamentals of federal and California environmental law. Students will study the major regulatory programs of environmental law; the agencies implementing environmental law; research sources and approaches to environmental law; and the diverse roles and opportunities for paralegals in the field. CSU

PLS 11. Debtors’ Rights and Creditors’ Remedies (3)
Lec-3
Prereq.: PLS 3, 4 AND CLW 18
This course focuses on collection issues related to litigation and how judgments are enforced. Before taking this course, students should already know what a complaint and answer are, how to serve a summons and complaint, and how to do discovery. CSU

PLS 12. Family Law (3)
Lec-3
Prereq.: PLS 3
Students learn about marital dissolutions, annulments, adoptions, domestic violence and paternity matters, and how these matters are handled from beginning to end. Students will have the opportunities to use the requisite Judicial Council forms and Dissomaster software to calculate child and spousal support. CSU

PLS 13. Intellectual Property (3)
Lec-3
Prereq.: PLS 3 AND CLW 18
This course focuses on the principles of intellectual property law in trademarks, copyrights, and patents including international conventions and difference between ideas and expression of ideas, fair-use doctrine, trade secrets, and the notion of public domain. CSU

PLS 14. Immigration Law (3)
Lec-3
Prereq.: PLS 3 AND CLW 18
This course is a practice-oriented overview of immigration law, with an emphasis on immigration procedures and practices of Citizenship and Immigration Services, San Francisco District Office, the California Service Center, and the Immigration Court. The course covers family and employment visas, political asylum, naturalization, non-immigrant visas, and removal. CSU

PLS 15. Medical Law (3)
Lec-3
Prereq.: PLS 3 AND CLW 18
This course applies general business law, including the law of contracts, corporate legal structures, and antitrust liability, to the establishment of health-care organizations. It also addresses the law of health-care management, including such topics as managed care, professional liability and patients’ rights, and health care as a legal right. CSU
PLS 16. Work Experience (3)
Work-minimum paid supervised 225 hrs. or unpaid supervised 180 hrs., plus coordinating conferences and individual meetings
Prereq.: PLS 1, 2, 3, and 4
Max. units of work experience per semester: 3
PLS 16 provides actual work experience in a legal setting to students completing the Paralegal/Legal Studies Program. Students will work with real attorneys and paralegals, practice the skills learned in the paralegal classes, and gain experience working in a legal environment.
CSU

PLS 17. Communications Law (3)
Lec-3
Advise: BCST 100, 103, CLW 18, or JOUR 19
Students will examine the major legal issues faced by the media in the United States. Topics include the First Amendment, prior restraint, defamation, obscenity, fair trial, and free press. Additional topics include broadcasting, cable, and new electronic media as well as the evolving legal and ethical issues associated with the Internet.
CSU

PLS 18. Work Experience (2)
Work-minimum paid supervised 150 hrs. or unpaid supervised 120 hrs., plus coordinating conferences and individual meetings
Prereq.: PLS 1, 2, 3, and 4
Max. units of work experience per semester: 3
PLS 18 provides actual work experience in a legal setting to students completing the Paralegal/Legal Studies Program. Students will work with real attorneys and paralegals, practice the skills learned in the paralegal classes, and gain experience working in a legal environment.
CSU

PLS 19. Paralegal Work Experience (1)
Work-minimum paid supervised 75 hrs. or unpaid supervised 60 hrs., plus coordinating conferences and individual meetings
Prereq.: PLS 1, 2, 3, and 4
Repeat: max. 6 units, including units from PLS 16 and 18
Max. units of work experience per semester: 3
PLS 19 provides actual work experience in a legal setting to students completing the Paralegal/Legal Studies Program. Students will work with real attorneys and paralegals, practice the skills learned in the paralegal classes, and gain experience working in a legal environment.
CSU

PLS 20. Introduction to Careers in Law (1)
Lec-1
Repeat: 2 units max.
This course is open to all students and will introduce students to the many careers in today’s law offices: what education is needed, what employers expect, and how to pursue this career. Note: PLS 20 is NOT part of the Paralegal/Legal Studies degree and certificate programs.
CSU

Real Estate
Credit, Degree Applicable Courses:
RE 97. Work Experience in Real Estate (3)
Work: 225 total paid, supervised hrs., or 180 total unpaid, supervised hrs., conf-var.
Coreq.: Enrollment in at least 4 additional units and written consent of instructor
Repeat: max. 6 units
Supervised employment involving real estate duties.
CSU

RE 181. Principles of Real Estate (3)
Lec-3
The fundamental real estate course covering the basic laws and principles of California real estate; background and terminology necessary to advanced study in specialized courses. Designed to assist those preparing for the real estate salesperson licensing examination.
CSU

RE 182. Escrow Fundamentals (3)
Lec-3
Basic methods and techniques of escrow procedures and legal responsibilities of individuals engaged in escrow work. Types of instruments used on the job and their preparation, closing statements, disbursement of funds, proration calculations, public and ethical responsibilities.
CSU

RE 183. Real Estate Property Management (3)
Lec-3
An introductory course dealing with real estate property management and its relation to the areas of management, agency, contracts, rentals (e.g., lease and rental agreements), basic rent rules, rent control, tenant selection, insurance, repairs and maintenance, evictions, discrimination, landlord and tenant rights, public and private housing facilities, government regulations and participation, and the real estate industry.
CSU

RE 184. Real Estate Practice (3)
Lec-3
Day-to-day functions and operations of the real estate broker and salesperson; real estate brokerage, including listing, prospecting, advertising, financing, sales techniques, escrow, and ethics.
CSU

RE 185. Legal Aspects of Real Estate (3)
Lec-3
California real estate law (including rights incident to property ownership and management, agency, and contracts) as applied to real estate transfer, conveyance, probate proceedings, trust deeds, and foreclosure, as well as recent legislation governing real estate transactions.
CSU

RE 186. Principles of Real Estate Finance (3)
Lec-3
Analysis of real estate financing, including lending policies in financing residential, commercial and special purpose properties. Emphasis on various methods of financing.
CSU

RE 187. Investment Analysis and Tax Consequences of Real Estate (3)
Lec-3
The impact of federal and California State income-tax and other tax laws upon the purchase, sale, exchange, and use of real property. Taxation with regard to depreciation, capital gains, installment sales, pre-paid interest, and tax-saving opportunities. Real property taxation, federal gift and estate taxes, and transfer taxes.
CSU

RE 189. Real Estate Economics (3)
Lec-3
Use of economic analysis as the basis for prudent real estate purchase and investment. Urban land and real estate economics and effective demand. Impact of financing and government policy with respect to the market of investors. Economic advantages and disadvantages of various types of real estate purchase and investment. Personal investment profiles.
CSU
RE 191. Principles of Real Estate Appraisal (3)
Lec-3, field trips
A basic course in real estate valuation with emphasis on residential property. Definitions and concepts; principles of valuation; the appraisal process; analysis of city, neighborhood and site data; architectural styles and utility; depreciation; valuation by market data, cost and income approaches; correlation of approaches and final estimate of value; the appraisal report; and the professional appraiser. CSU

RE 192. Advanced Real Estate Appraisal (3)
Lec-3
Advanced study in appraisal and valuation techniques with emphasis on income, commercial, and industrial properties. Case testimony reports for governmental agencies. CSU

RE 193. Real Estate Computer Applications (3)
Lec-3
Exploration of basic computer functions, along with the latest computer software dealing with the real estate appraisal, property management, finance, escrow, sales, listings, record keeping and other related areas of real estate. CSU

RE 194. Affordable Housing Property Management (3)
Lec-3
Introduction to affordable housing property management and its relation to the areas of management, agency, contracts, rentals (e.g., lease and rental agreements), basic rent rules, rent control, tenant selection, insurance, repairs and maintenance, evictions, discrimination, landlord and tenant rights, HUD rules and regulations, public and private housing facilities, government regulations and participation, and the real estate industry. CSU

Small Business

Credit, Degree Applicable Courses:

SMBS 135. Ownership and Operations of a Small Business (3)
P/NP available
An introduction to organizing and managing a successful small business enterprise. Emphasis on formulating a business plan, preparing financial statements, conducting marketing research, finding sources of financing, developing marketing and business strategies, and responding to legal and ethical issues. CSU

Noncredit Courses:

SMBU 9399. Human Resources - Small Business (3 hrs)
Interpersonal behavior as related to the administration of a small business. Focus on personal components such as: organizational structure, communications, motivation, selection and placement, management development and leadership.

SMBU 9403. Small Business Bookkeeping (54 hrs)
ADVISOR: TRST 4601 OR EQUIVALENT
Development of accounting knowledge and skills needed to operate a small business. Bookkeeping cycle, payroll and voucher systems, journal entries, the balance sheet, and income statements.

SMBU 9408. Small Business Marketing (3 hrs)
An in depth view of marketing for the small business operator. Market analysis, marketing techniques and programs suitable for the small business.

SMBU 9418. Small Business and Taxes (3 hrs)
A non-technical introduction to Federal and State tax laws that are applicable to small business owners. Topics include basic terminology, reportable income, deductions, tax credits and tax saving strategies.

SMBU 9419. Developing a Business Plan (12 hrs)
Students will learn about the benefits of developing a business plan for their small business. Students are introduced to the parts of a successful business plan and given practical step-by-step instructions on how to gather the data necessary to write the plan.

SMBU 9421. Successful Sales (3 hrs)
An overview of successful sales techniques including: telemarketing, tracking sales prospects, sales presentations, and successful closings.

SMBU 9423. Restaurant Entrepreneurship (12 hrs)
An overview of the challenges of food service operation, including menu concepts, recipe standardization, inventory control, pricing, marketing and staffing.

SMBU 9429. Bid Preparation for Government Contracts (3 hrs)
How to process and submit procurement contact bids to the federal, state and city government purchasing offices.

SMBU 9436. Buying a Business (3 hrs)
A discussion of the basic steps involved in the purchase of a business: evaluation of the merits of the business, determination of purchase price and financing of purchase.

SMBU 9437. Keeping Score on Your Business (6 hrs)
Identification of the strengths and weaknesses of a small business through ratio analysis, income/expense and balance sheet comparisons from statements and tax returns. Development of systems to pinpoint problems and identify necessary corrective actions.

SMBU 9439. Selling a Business (3 hrs)
Preparing a business for sale to gain the most benefits while being fair to the buyers. Pricing the business, negotiating, understanding offers and counter-offers, and the escrow process.

SMBU 9440. Entrepreneur's Round Table (3 hrs)
ADVISE: TRST 4601, OR EQUIVALENT
An on-going series of seminars/workshops based on participant exchange and the exploration of practical solutions to specific small business challenges.

SMBU 9447. Business Laws for Small Businesses (3 hrs)
This class will provide an overview of laws related to employment, contracts, and negotiable instruments. Sources of free or low-free legal advice will be identified.

SMBU 9448. Purchasing Products and Services (3 hrs)
Learn how to locate the suppliers of goods and services for your new or established business. Also discussed are alternate sources planning, saving money on purchase orders and delivery costs, and dealing with vendors.

SMBU 9449. Staffing Your Business (90 hrs)
A practical course in determining staffing needs, developing effective hiring procedures, establishing employee and business policies, and training and motivating employees.

SMBU 9450. Effective Advertising (3 hrs)
An overview of the types, objectives and limitations of small business advertising, emphasizing forms of advertising that are most effective.
for small business. Topics include the development and implementation of an advertising plan and budget.

SMBU 9451. Business Licenses and Permits (3 hrs)
This class provides an overview of the various types of required permits and licenses and offers guidance in obtaining them.

SMBU 9452. Supervising Employees (3 hrs)
An overview of employee supervision focusing on various management structures and styles and how they can be used to supervise and motivate employees.

SMBU 9453. Business Communication (3 hrs)
An introduction to the role of effective communication in a small business and the essential skills of effective listening, questioning, summarizing and presentation.

SMBU 9454. Getting Government Business (3 hrs)
An overview of the process of selling goods and services to the government, including the various types of procurement, proposal submittal, content of proposals, requirements, and implementation.

SMBU 9461. Retail Management (3 hrs)
An overview of the retail business and management decisions effecting it. Management functions to be covered include: location of the business, credit, advertising, personnel, record keeping, retailing methods, and financing.

SMBU 9462. Marketing Analysis (3 hrs)
An overview of the material needed to make intelligent marketing decisions. Prepares the student to put together a marketing program.

SMBU 9463. The Telephone as a Sales Tool (3 hrs)
Phone answering techniques to gain customers and increase sales.

SMBU 9464. Designing a Financial Future (12 hrs)
A non-technical use-oriented course in designing your personal financial plan making rational investment decisions and instilling appropriate tax planning strategies.

SMBU 9465. Small Business Insurance (3 hrs)
An overview of the different types of insurance relevant to small business, including property, liability, E&O, and types of insurance coverage required by law.

SMBU 9466. Employer/Employee Rights (3 hrs)
An overview of the rights and responsibilities of employees and employers and a discussion of the legal framework of the employee/employer relationship.

SMBU 9467. Getting Started in Business (18 hrs)
An overview of the considerations involved in starting a new business. Entrepreneur and small business characteristics; idea and business opportunity recognition; feasibility analysis; strategy development and industry and competitor analysis.

SMBU 9468. Employee Training (3 hrs)
A discussion on employee training programs for the small business. An overview of cost effectiveness, in house training vs. outside training.

SMBU 9469. Controlling Your Inventory (3 hrs)
An overview of the impact of inventory on the profitability of a small business. Advantages of inventory control in terms of profits and space needs.

SMBU 9470. Marketing Strategy (3 hrs)
An in-depth look at the objectives, components, implementation and evaluation of a well-designed marketing strategy.

SMBU 9471. Pricing a Product or Service (3 hrs)
A broad discussion of the factors affecting pricing including government regulations and specific pricing policies established by manufacturers, wholesalers, retailers and the service industry.

SMBU 9475. Planning for the Future of Your Small Business (9 hrs)
An overview of approaches that can be used to position a small business for future success. Includes techniques for understanding a business' current position; identifying future issues and trends; and developing strategies for meeting the challenges of the future.

SMBU 9476. Green and Sustainable Small Business (9 hrs)
An exploration of the obstacles and opportunities small business face in implementing and maintaining sustainable practices that are economically, ecologically and socially sound.

SMBU 9477. eBay for Your Small Business (9 hrs)
Create an online presence for your small business using eBay. Learn how to open a seller’s account, research and create winning listings, incorporate photos of product displays, set prices, open and use a PayPal account, monitor listings and complete sales.

SMBU 9478. Franchise Business Basics (3 hrs)
An introduction to franchising for pre-business entrepreneurs who want to investigate, start-up, and prepare a franchise marketing business loan proposal for a major franchise or corporation. An overview of the requirements and trends of franchising.

SMBU 9479. Understand Your Lease (3 hrs)
Provides entrepreneurs with tools to evaluate and negotiate favorable commercial leases. Topics include understanding the different types of leases, evaluating lease terms, and negotiating advantageously.

SMBU 9480. Drug Abuse in the Workplace (3 hrs)
What employers and supervisors need to know in order to establish and maintain a drug-free workplace. Setting policy, establishing a...
drug-free awareness program, identifying potential problems, methods of screening, employee assistance programs, treatment referral, reentry after treatment, confidentiality issues.

SMBU 9781. Legal Structure for a Business (3 hrs)
An evaluation of each of the legal structures a business can assume. Corporations, partnerships, sole proprietorships, the process of incorporation.

SMBU 9782. Home Based Business (3 hrs)
An overview of the many considerations and challenges that are encountered when starting a home-based business and working at home.

SMBU 9783. Getting the Right Loan (3 hrs)
Fundamentals in identification and evaluation of the various types of loans available to small businesses, and a discussion of alternative sources of funding.

SMBU 9784. Finance for Small Business (3 hrs)
Examination of the initial and on-going financial needs of a small business, with attention to basic financial analysis, statements, ratios, and trends.

SMBU 9785. Contract Administration (3 hrs)
An introduction to the processes of contract administration.

SMBU 9789. Introduction to Franchising (3 hrs)
An overview of the nature and scope of franchising.

SMBU 9791. Introduction to Finance (3 hrs)
An introduction to the vocabulary, concepts, and principles of finance as they relate to the operation of a small business.

SMBU 9792. Introduction to Management (3 hrs)
An introduction to the vocabulary, concepts, and skills of management as they relate to the operation of a small business.

SMBU 9793. Introduction to Marketing (3 hrs)
An overview of the concepts and principles used in defining a market, developing a marketing plan, and implementing successful marketing programs.

SMBU 9794. Wholesaling (3 hrs)
An overview of wholesaling and its functions for the small business operator. Buying, selling, transportation, storage and financing.

SMBU 9795. Retailing (3 hrs)
An overview of all forms of selling goods and services to the consumer. Location, merchandise, credit, personnel, financing and controls.

SMBU 9796. Profiting from Financial Statements (3 hrs)
An introduction to basic financial analysis through the study of financial statements, ratios, and trend recognition.

SMGB 8500. Achieving San Francisco Green Business Certification (9 hrs)
Green certification is becoming an increasingly important tool for gaining and keeping customers for San Francisco businesses. We cover the step by step methodology of getting green certified and how to maintain your certification once you get it.

SMGB 8501. Green Marketing for Small Business (6 hrs)
The growing importance of being an environmentally friendly small business cannot be overemphasized. Learn the tools to go beyond compliance and learn how to leverage green as a marketable advantage.

SMGB 8502. Cost Benefits of Being Green (6 hrs)
An introduction to how going green can save your company money. Find the ways to cut costs, and what types of grants and credits are available to help you.

SMGB 8503. The Green Supply Chain (6 hrs)
As green initiatives become more pervasive in business, key customers will insist in green compliance from their vendors. Learn how you fit in the green supply chain and how to ensure your suppliers comply.

SMGB 8504. Green Certifications (6 hrs)
There are many different green certifications available to today's businesses. We will cover the major types of certifications, the process of achieving them and how certification can help you get and retain customers.

**Supervision and Business Management**

**Credit, Degree Applicable Courses:**

SUPV 221A. Introduction to Supervision/Management (1.5)
Lec-3 (8 wks)
Introductory course covering the nature of supervision and management; basic management theories; leadership styles; history of supervision/management; responsibilities of a supervisor, such as planning, recruiting, training, evaluation; management-employee relations; discipline/reward; grievances; decision-making; communications; motivation; time management; stress management; employee safety; supervising protected groups; and other issues and trends in supervision/management. CSU

SUPV 222A. Communication for Supervisors (1.5)
Lec-3 (8 wks)
Instruction and practice in effective speaking, listening, and writing in supervisory situations; kinds of supervisory communications; oral and written tools for supervisors; nonverbal communication; listening as a communication skill; basic English language requirements; understanding what is communicated (intent and effect). CSU

SUPV 223A. Organizational Behavior for Supervisors (1.5)
Lec-3 (8 wks)
Basic concepts and principles of human behavior in organizations, including application of motivational theory, group dynamics, managing change, leadership styles, training and organizational development. CSU

SUPV 224A. Human Resources Management (1.5)
Lec-3 (8 wks)
Contemporary and historical human resources management principles and techniques for which the supervisor is responsible, including new hires selection and placement, job standards and delegation, employee development and career management, discipline, labor relations, Equal Employment Opportunity/Affirmative Action, and employment law. CSU

SUPV 226A. Advanced Communication for Supervisors (1.5)
Lec-3 (8 wks)
Advanced principles of effective communication in business meetings and conferences, application through role playing practice in conducting simulated meetings. CSU
SUPV 227A. Special Problems in Supervision (1.5)
Lec-3 (9 wks)
Special management problems for supervisors: sexual harassment, discrimination, AIDS and retraining, nepotism, recruiting women and minorities, leave transfers/donors, and government regulations affecting these problems. CSU

SUPV 231. Introduction to Supervision/Management (3)
Lec-3
Basics of supervision and management including planning, organizing, recruiting, training, decision-making, communication, management/employee relations, motivation, discipline, rewards/incentives, and grievances. Time and stress management for the manager; speaking, listening, writing, and nonverbal communication. CSU

SUPV 232. Organizational Behavior for Supervisors (3)
Lec-3
Basic concepts and principles of human behavior in organizations, including application of motivational theory, group dynamics, managing change, leadership styles, training and organizational development. CSU

SUPV 233. Human Resources Management (3)
Lec-3
Human resources management principles and techniques including recruiting, job performance, employee development, career management, discipline, labor relations, and employment law; also sexual harassment, health issues in the workplace, discrimination, Americans with Disabilities Act, downsizing, managing a diverse workforce, and governmental regulations. CSU

SUPV 234. Communication for Business Management (3)
Lec-3  P/NP available
Concepts, strategies and models that help students improve their interpersonal communication skills—writing, making presentations and speeches, working in teams and negotiating outcomes. The processes students learn can be applied to oral and written communications in their business and personal lives. Concepts and models designed to improve communication with people from all cultures and enhance management and leadership of diversified teams. The tactics and strategies learned will improve communication in a way that ethically influences others to achieve desired results. CSU

SUPV 235. Organizational Leadership (3)
Lec-3  P/NP available
This course explores collaborative and inclusive leadership and management styles along with the vision and values needed to effectively lead successful organizations. Examines strategies for developing and encouraging skills that enable leaders and managers to succeed. CSU/UC

SUPV 236. Women Leaders at Work (3)
Lec-3  P/NP available
This course explores women’s leadership, management, and communication styles and the vision and values women leaders bring to an effective environment in business, education, government and community organizations. Examines strategies for developing and encouraging skills that enable and allow women leaders and managers to succeed. CSU

SUPV 240. Introduction to Retirement Planning (3)
Lec-3  P/NP available
This course explores the fundamentals of retirement planning including but not limited to initial savings, investment decision, withdrawals at retirement age, working during retirement, non employment emotional outlets and managing expectations. Examines strategies for developing and effective individual retirement plan that will enable students to effectively prepare for retirement whether the retirement date is a short or long term goal.

Noncredit Courses:
SUMA 9412. The Supervisor in Management (18 hrs)
Advis: ESLN 3500 AND TRST 4601
Position of supervisor in the management structure. Skills needed, functions of planning, organizing, staffing, directing, and controlling, communicating, motivating, decision-making, priority setting and time management.

SUMA 9413. Personnel Management (18 hrs)
Advis: ESLN 3500 AND TRST 4601
Personnel responsibilities of line supervisors. Selection and training of employees, motivating, dealing with problem employees, group dynamics, leadership, and working with unions and protected groups.

SUMA 9414. Human Relations (18 hrs)
Advis: ESLN 3500 AND TRST 4601
Interpersonal and organizational behavior in work situations. Organizational psychology and intergroup relations, the individual in the group, theories of motivation, communication, management philosophy, and leadership styles.

SUMA 9415. Business and Government (18 hrs)
Interaction of business and government. Serving the public through provision of goods and services and employment; planning; regulating; executive, legislative, and judicial functions; international aspects; ethics and responsibility; comparison of business and public management.

SUMA 9416. Administrative Management Methods (18 hrs)
Advis: ESLN 3500; TRST 4601
Overview of office management and administrative management methods. Principles, practices, and tools that link office activities into a coherent system; office automation; data processing; records management; and personnel responsibilities of the office manager.

SUMA 9417. Affirmative Action and Opportunity (18 hrs)
Advis: ESLN 3500; TRST 4601

SUMA 9418. Women in Management (18 hrs)
Advis: ESLN 3500; TRST 4601
Situational study of the managerial woman. Social, legal, and economic factors that caused inequality, and programs for change; selecting and assessing women for management positions; cultural bias and sex role stereotypes; motivation and preparation for success in management.

SUMA 9419. Business Law (52.5 hrs)
The legal system as a resource for business and for the public. Topics include the law of contracts, business organization, agency, recognition of a legal situation, commercial law, labor law, civil and criminal law, and the attorney-client relationship.
SUMA 9422. Management by Objectives (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Development of skill in using objectives to set priorities and to plan, organize, staff, direct, and control work programs. Delegating responsibility, communicating, motivating employees, coaching and counseling, and evaluating performance.

SUMA 9423. Developing and Appraising Staff (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Methods for training, developing, and evaluating employees. Job analysis and description, written performance standards, motivation, communication, performance appraisal, and counseling.

SUMA 9424. Time and Methods Management (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Techniques for effective time and caseload management and methods improvement. Scheduling, planning, setting priorities, delegating, handling interruptions and crises, improving work methods, communicating, training, and enhancing teamwork for effective use of time.

SUMA 9425. Decision-Making (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Decision-making and problem-solving as an integral part of managing. Analytical tools and skills useful for individual and group decision-making; psychology and sociology of the decision process; techniques and action procedures; and strategies for problem-solving and for implementing decisions.

SUMA 9426. Organizational Leadership (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Leadership as an influence process for accomplishing organizational goals. The leader viewed as cheerleader, enthusiast, nurturer, coach, and facilitator; the power base; the philosophy of leadership; leadership styles; task and people orientation; and situational leadership.

SUMA 9427. Employee/Management Relations (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Employee-management relations in the work environment. Attitudes, status, morale; managing human resources; complaints and grievances; discipline; union-management relations; participation; improving productivity; and team-building.

SUMA 9429. Team-Building (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Functioning of teams within the overall organization. Establishing team objectives, team spirit, major blockages, utilization of problem-solving to increase team effectiveness, role clarification, assertiveness, conflict resolution, leveling, and techniques of team-building.

SUMA 9433. Training and Developing Employees (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Supervisory responsibilities in regard to employee career development. Job instruction training (JIT), principles of learning, training methodologies, coaching, counseling, and evaluating employee performance in training situations.

SUMA 9434. Budgeting and Control (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Budgetary planning and executive controls as tools for management. Program budgeting, cost accounting, fiscal management, revenue planning and expense control, line-item and zero-base budgeting, program appraisal and decision-making.

SUMA 9435. Public Budgeting and Finance (18 hrs)
*Advise: ESLN 3500; TRST 4601*
An overview of government budgeting and revenue planning. Concepts of fiscal management, the impact of budget and finance on social goals and expectations, trends in public finance, and preparation of a budget work program with supporting explanations.

SUMA 9436. Briefing and Presenting Reports (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Skills for giving effective briefings and oral presentations. Reducing public speaking anxieties, relaxation, identifying audience, gathering facts, organizing material, using visual aids, voice exercises, nonverbal communication, delivery, and audience questions.

SUMA 9438. Reports, Memos, and Letters (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Approaches for writing well-organized and suitable reports, memos, and letters. Planning, organizing, and presenting ideas clearly and convincingly; effective writing techniques; review of writing styles; visually attractive layouts; problems of grammar and punctuation; clear and concise writing style; and proofreading and editing.

SUMA 9440. Improving Public Contact (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Application of concepts of communication and interpersonal relations to contacts with the public. Organization-client relationship; public relations; win-win situations for the organization, employees, and customers; improving individual service and maintaining friendly customer relations; dealing with "problem-type" individuals; winning friends by telephone; contacts in the field; press and community relations.

SUMA 9441. Stress Management and Well-Being (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Strategies for managing stress and preventing job burnout. Identifying stressors in personal and professional areas, self-evaluation, sources of job burnout, practicing relaxation, relation of stress to health, and stress management practices.

SUMA 9442. Assertiveness and Conflict (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Improvement of ability of supervisory personnel to cope verbally with others. Increasing self-esteem, reducing anxiety; handling conflict; using individual differences, concepts of assertiveness, aggressiveness, and submission; expression of feelings.

SUMA 9443. Interpersonal Communication (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Interpersonal skills for communicating effectively. Process of interpersonal communication; effective listening and responding; self-expression; feedback; non-verbal communication and meanings; barriers and bridges; leveling; Johari window applications; establishing and building rapport.

SUMA 9447. Pre-Retirement Planning (18 hrs)
*Advise: ESLN 3500; TRST 4601*
Overview of planning for retirement and for second careers. Psychology and attitude for retirement, maintaining health, housing needs, traveling, financial planning, legal aspects, real estate, insurance, pension options, social security, Medicare, and launching second careers.
SUMA 9452. Performance Test Skills for Business (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Enhancement of skills utilized in written and oral performance tests. Selection process, application, examination format and strategies.

SUMA 9453. Accounting Concepts (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Basic principles of accounting as the language of business. Double-entry bookkeeping, recording through summarization, debits and credits, journals and ledgers, income statements, balance sheets, sources and uses of funds, and financial reports.

SUMA 9454. Business Functions (18 hrs)
Elements of business administration, with case studies. Forms of business organization; people and capital as business resources; production, materials, and personnel management; marketing and advertising; finance and budgeting; computer-based systems; and trends in business.

SUMA 9462. Conducting Meetings (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Development of skills in planning and facilitating meetings, problem-solving, making presentations, group process analysis, and communication.

SUMA 9473. Management Seminar (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Objectives, goals, policies, and approaches used in organizations for carrying out missions. Styles of leadership, establishing objectives, organizing for administration, planning and controlling activities, human relations and organizational behavior. Various topics may be emphasized by arrangement.

SUMA 9477. Business Law (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Overview of the legal system as a resource for business and for the public. Law of contracts, business organization, agency, recognition of a legal situation, commercial law, labor law, civil and criminal law, and the attorney-client relationship.

SUMA 9478. Role of the Supervisor (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Overview of basic principles and problems of supervision. Management styles, effective communication, motivation, participation, decision-making, time management, delegation, and performance evaluation.

SUMA 9479. Management Practices (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Selected management concepts that enhance effectiveness. Assuming leadership of workgroups, recognizing organizational culture, handling group crises, setting priorities, delegating, managing time, conducting productive meetings, maintaining a safe and healthful environment, team-building, and organizational ethics and politics.

SUMA 9481. Economics (18 hrs)
*Advises: ESLN 3500; TRST 4601*
An overview of micro and macro economics. Micro topics include concepts of supply and demand, cost and revenue, theories of profit. Macro topics include concepts of consumption and saving, employment, investment, money and banking, and international trade.

SUMA 9482. Finance (18 hrs)
*Advises: ESLN 3500; TRST 4601*
An overview of finance as a basic function of management in business and government. Capital formation, financial institutions and instruments, sources of working capital, sources of long term capital, money and banking, interest and dividends as returns on investments, and theories of profit.

SUMA 9483. Managerial Accounting (18 hrs)
*Advises: ESLN 3500; TRST 4601*
Overview of applications of accounting in business and government. Management information systems, quality audits, receipt and disbursement of funds, purchases and sales, payroll accounting, reports and analyses for financial institutions and for the public, and quantitative data for management planning and control.

SUMA 9484. Marketing (18 hrs)
*Advises: ESLN 3500; TRST 4601*
An overview of marketing as distribution of goods and services. Marketing environment, identifying consumer needs, product strategy, channels of distribution, wholesaler, retailer, sales promotion, advertising, personal selling, pricing strategy, and international marketing.

SUMA 9485. U.S. Business and Organizations (27 hrs)
Overview of American business and non-profit organizations/operations. Insight into all aspects of an organization: management, information systems, operations, human resources, finance, marketing - as well as corporate culture, protocol, and career options.

**Travel and Tourism**

**Credit, Degree Applicable Courses:**

TRTV 155. Meeting and Event Planning (1)
Lec-1, field trips
Learn to plan a meeting, seminar, training session, convention, trade show, or product launch. CSU

TRTV 157. Principles of Travel and Tourism (3)
Lec-3
An overview of the components and satellite industries that make up the business of Travel and Tourism: airlines, hotels and resorts, ground transportation, bus, rail, cruise lines, tour companies, etc. Emphasis on the specific and basic terminology of the industry, on researching the development of a destination, packaging and then selling it. Designed to give the student the basics for all components of the industry. CSU

TRTV 159. Advanced Principles of Travel and Tourism (3)
Lec-3
Methods of developing a travel destination, advertising and selling that destination; dynamics of tourism sales and marketing concepts including wholesale and retailing practices of the travel industry. CSU

TRTV 160. Transportation Field Work (1)
Work-5
*Advises: Consent of the Travel and Tourism Program Advisor*
Repeat: max. 2 units
On the job laboratory training in customer service with airlines, travel agencies, and other passenger service companies. Placement of students is determined according to cooperating firm's requirements. CSU
TRTV 171A. Destinations: Cities I (3)
Lec-3
Examination of the numerous features that make selected cities in Western Europe, South America and Africa great destinations to visit. TRTV 171A and B may be taken in any order or independently. CSU

TRTV 171B. Destinations: Cities II (3)
Lec-3
Examination of the numerous features that make selected cities in Eastern Europe, North America, and Australasia great destinations to visit. CSU

TRTV 172. Destinations: Natural Wonders (3)
Lec-3
One of the oldest and fastest growing segments of the travel and tourism industry are trips to the natural wonders of the world. The student will learn what types of natural wonders exist, where they are located, steps to preserving them, and how to plan trips to visit them. CSU

TRTV 173. Destinations: Historical and Archaeological (3)
Lec-3
An analysis of the historical and archaeological travel destinations of the world. Travelers want to find a connection to their heritage. Learn all the “must see” places for the well traveled. More people travel to historical and archaeological sites than any other segment of the travel industry. CSU

TRTV 174. Destinations: Cruises (3)
Lec-3
An in-depth analysis and evaluation of all types of cruises, including large and small cruise ships, boats, barges, ferries, freighters, and sailing vessels with particular emphasis on the cruise experience as a destination. What are the benefits of cruise travel and who offers the best itineraries. CSU

TRTV 175. Destinations: Hotels, Resorts and Spas (3)
Lec-3
Learn all there is to know about the accommodation segment of the travel and tourism industry. What makes a great hotel, resort, or spa? How do hotel rating systems work? Where are the top properties located, and how do you get the best rates for your clients? CSU

TRTV 176. Destinations: Great Trips (3)
Lec-3
An introduction to the world’s greatest trips, based on lists produced annually by the leading authorities in the travel and tourism industry. An overview of all the top trips offered by air, sea, and land worldwide. A must class for anyone interested in traveling or planning a career in travel and tourism. CSU

TRTV 180. Eco-Travel and Tourism (3)
Lec-3, field trips
Ecological and green travel is the fastest growing segment of the travel industry. Learn what makes a destination green, the differences between green, sustainable, and ecological travel, and how destinations are developed with green objectives in mind. CSU

TRTV 181. Business Travel (3)
Lec-3, field trips
What does the business traveler need and how does it differ from the leisure traveler? Learn about special contract agreements and the of the business traveler. An ideal class for administrative assistants and anyone working in the business world. CSU

TRTV 182. Tour Management (3)
Lec-3, field trips
Advise: TRTV 157 and/or TRTV 159
Learn how to develop, price, market, manage and account for all components of a special interest guided tour. Negotiate with airlines, hotels, ground operators and other suppliers for pricing and terms. At the completion of this course the student will be able to plan a profitable guided tour. CSU

Word Processing
See curricula and course listings under Computer Applications for Business in this section of the catalog.

Work Experience
Credit, Degree Applicable Courses:
WKEX 197. Work Experience (3)
Work-15 P/NP only
Prereq.: Approval of Business Dept. Work-Experience Coordinator. Students may enroll in only one work experience course per semester.
Repeat: max. 6 units
This course involves student work experience with cooperating employers. Students should be aware that the course content and methodology may vary semester to semester. However, a minimum of one orientation lecture, two work site contacts by the instructor, and two semester conferences between instructor and student are required. CSU

WKEX 301. General Career Work Experience (1)
Work-5 P/NP only
Prereq.: Approval of Business Dept. Work-Experience Coordinator. Students may enroll in only one work experience course per semester.
Repeat: max. 6 units
An orientation to the world of work and a solid foundation for career planning, using the resources of both the College and the employer. Designed for the student who may not yet have selected a specific occupational goal, but who is presently employed. CSU

WKEX 302. General Career Work Experience (2)
Work-10 P/NP only
Prereq.: Approval of Business Dept. Work-Experience Coordinator. Students may enroll in only one work experience course per semester.
Repeat: max. 6 units
An orientation to the world of work and a solid foundation for career planning, using the resources of both the College and the employer. Designed for the student who may not yet have selected a specific occupational goal, but who is presently employed. CSU

WKEX 303. General Career Work Experience (3)
Work-15 P/NP only
Prereq.: Approval of Business Dept. Work-Experience Coordinator. Students may enroll in only one work experience course per semester.
Repeat: max. 6 units
An orientation to the world of work and a solid foundation for career planning, using the resources of both the College and the employer. Designed for the student who may not yet have selected a specific occupational goal, but who is presently employed. CSU
WKEX 805. Work Experience (1)  
Work-5  P/NP only  
Prereq.: Approval of Business Dept. Work-Experience  
Coordinator. Students may enroll in only one work experience course per semester.  
Repeat: combination WKEX 805, 806, 807 max. 6 units  
Designed to introduce students to the world of work: punctuality, personal appearance, direction taking, job completion and workplace diplomacy. The content of this course varies.

WKEX 806. Work Experience (2)  
Work-10  P/NP only  
Prereq.: Approval of Business Dept. Work-Experience  
Coordinator. Students may enroll in only one work experience course per semester.  
Repeat: combination WKEX 805, 806, 807 max. 6 units  
Designed to introduce students to the world of work: punctuality, personal appearance, direction taking, job completion and workplace diplomacy. The content of this course varies.

WKEX 807. Work Experience (3)  
Work-15  P/NP only  
Prereq.: Approval of Business Dept. Work-Experience  
Coordinator. Students may enroll in only one work experience course per semester.  
Repeat: combination WKEX 805, 806, 807 max. 6 units  
Designed to introduce students to the world of work: punctuality, personal appearance, direction taking, job completion and workplace diplomacy. The content of this course varies.

LERN 62. Successful Job Search Techniques (1)  
Lec-1  P/NP available  
A comprehensive job search course that addresses skills assessment, generating employment options, hard copy and electronic resources and job postings, research techniques, traditional resume types as well as keyword scanable resumes and cover letters, and interview techniques. Emphasis on techniques to sustain healthy motivation for job search network and development throughout life. CSU Formerly LERN 41.

LERN 63. Career Counseling for Work Experience (1)  
Lec-1  P/NP available  
Coreq.: Concurrently working in a paid or unpaid position  
The seminar provides support and skill building experiences for students currently working in paid or unpaid positions. The content addresses workplace objectives, and interpersonal, communication and problem solving skills and their work site application. CSU Formerly LERN 42.

LERN 64. Financial Planning for Academic/Career (1)  
Lec-1  P/NP only  
Critical analysis and practical application of topics related to career and financial planning as they relate to success in college. This course will provide students with financial planning and management tools for academic and career success. Appropriate for new and continuing college students.

LERN 65. Creating Career Options (3)  
Lec-3, field trips  P/NP available  
An in-depth guide to career decision-making and career change and their impact on lifelong learning. Topics include self-assessment, assessment of the world of work, evaluation of options, occupational health, career development over the life span, influence of career choice on the family unit, role of addiction and recovery in career choice and development, and the creation of a career action plan. Focus is on the role of career development in contributing to a satisfying and healthy life. Helpful to people considering a career change or undecided about a college major. CSU/UC

LERN 66. Orientation to Career Success (1)  
Lec-1  P/NP available  
Constructing career success through integrating values, skills, and interests with an understanding of the emerging world of work. Topics include self-assessment, on-line and other career resources, and the construction of a plan for exploring career options. Appropriate for new college students as well as continuing students. CSU Formerly LERN 40.

Career Development Counseling Department  
Office: Science 127  
Phone Number: (415) 239-3117  
Web Site: www.ccsf.edu/cdpc  
Formerly CDPC

Announcement of Courses
Credit, Non-degree Applicable courses:
LERN 60. Creating Career Options (3)  
Lec-3, field trips  P/NP available  
An in-depth guide to career decision-making and career change and their impact on lifelong learning. Topics include self-assessment, assessment of the world of work, evaluation of options, occupational health, career development over the life span, influence of career choice on the family unit, role of addiction and recovery in career choice and development, and the creation of a career action plan. Focus is on the role of career development in contributing to a satisfying and healthy life. Helpful to people considering a career change or undecided about a college major. CSU/UC

LERN 61. Orientation to Career Success (1)  
Lec-1  P/NP available  
Constructing career success through integrating values, skills, and interests with an understanding of the emerging world of work. Topics include self-assessment, on-line and other career resources, and the construction of a plan for exploring career options. Appropriate for new college students as well as continuing students. CSU Formerly LERN 40.

LERN 62. Successful Job Search Techniques (1)  
Lec-1  P/NP available  
A comprehensive job search course that addresses skills assessment, generating employment options, hard copy and electronic resources and job postings, research techniques, traditional resume types as well as keyword scanable resumes and cover letters, and interview techniques. Emphasis on techniques to sustain healthy motivation for job search network and development throughout life. CSU Formerly LERN 41.

LERN 63. Career Counseling for Work Experience (1)  
Lec-1  P/NP available  
Coreq.: Concurrently working in a paid or unpaid position  
The seminar provides support and skill building experiences for students currently working in paid or unpaid positions. The content addresses workplace objectives, and interpersonal, communication and problem solving skills and their work site application. CSU Formerly LERN 42.

LERN 64. Financial Planning for Academic/Career (1)  
Lec-1  P/NP only  
Critical analysis and practical application of topics related to career and financial planning as they relate to success in college. This course will provide students with financial planning and management tools for academic and career success. Appropriate for new and continuing college students.

LERN 65. Creating Career Options (3)  
Lec-3, field trips  P/NP available  
An in-depth guide to career decision-making and career change and their impact on lifelong learning. Topics include self-assessment, assessment of the world of work, evaluation of options, occupational health, career development over the life span, influence of career choice on the family unit, role of addiction and recovery in career choice and development, and the creation of a career action plan. Focus is on the role of career development in contributing to a satisfying and healthy life. Helpful to people considering a career change or undecided about a college major. CSU/UC

LERN 66. Orientation to Career Success (1)  
Lec-1  P/NP available  
Constructing career success through integrating values, skills, and interests with an understanding of the emerging world of work. Topics include self-assessment, on-line and other career resources, and the construction of a plan for exploring career options. Appropriate for new college students as well as continuing students. CSU Formerly LERN 40.

NONCREDIT COURSES:
LERN 1062. Job Search Skills (15 hrs)  
A job search-course that teaches skills to generate employment options through self assessment, the use of interview techniques, cover letter and resume development, and job search strategies.

Chemistry  
Office: Science 236  
Phone Number: (415) 239-3377  
Web Site: www.ccsf.edu/chemistry

Announcement of Courses
Credit, Non-Degree Applicable Courses:
CHEM C. Introduction to Calculation in Chemistry (1)  
Conf-1.5  P/NP only  
Coreq.: CHEM 101A  
Recommended as a supplement to be taken concurrently with CHEM 101A for students who need additional help. Illustration and discussion of problem-solving methods for calculations in CHEM 101A.

CHEM D. Chemistry Calculations (1)  
Conf-1.5  P/NP only  
Coreq.: CHEM 103A  
Recommended as a supplement to be taken concurrently with CHEM 103A for students who need additional help. Illustration and discussion of problem-solving methods for calculations in CHEM 103A.
CHEM E. Organic Problem-Solving Methods I (1)
Conf-1.5  P/NP only
Coreq.: CHEM 212A
Recommended as a supplement to be taken concurrently with CHEM 212A for students who need additional help.
Illustration and discussion of problem-solving methods in CHEM 212A.

CHEM F. Organic Problem-Solving Methods II (1)
Conf-1.5  P/NP only
Coreq.: CHEM 212B
Recommended as a supplement to be taken concurrently with CHEM 212B for students who need additional help.
Illustration and discussion of problem-solving methods in CHEM 212B.

Credit, Degree Applicable Courses:
CHEM 17. Problem-Solving Methods (3)
Lec-3
Prereq.: Completion/concurrent enrollment in MATH 40, or placement in MATH 60 or higher
The normal progression is from CHEM 17 to CHEM 40. Students who have completed CHEM 40, 101A, or 103A may not receive credit for CHEM 17.
Problem-solving, with emphasis on the how and why of solving problems. Useful for all areas where quantitative reasoning is needed. Designed for the student who knows how to perform various mathematical operations but who has difficulty in setting up problems for solution. Most problems assigned in this course have some basis in commonly known or easily learned aspects of the physical sciences. CSU

CHEM 32. Introduction to Medical Chemistry (4)
Lec-3, lab-3  P/NP available
Open to all students. No previous chemistry or physics required. Satisfies the requirements of nursing and related majors that require one semester of chemistry. Also satisfies the recommended prerequisite for PHYS 12 and MB 12.
Students taking a major that requires two semesters of chemistry should enroll in CHEM 33 after completing CHEM 32. Students preparing to enroll in CHEM 101A or 103A should enroll in CHEM 40.
Basic concepts of inorganic and organic chemistry, biochemistry, and physics as they apply to the chemistry and physics of the human body. CSU

CHEM 33. Adv Medical Chemistry and Biotechnology (4)
Lec-4, lab-2  P/NP available
Prereq.: CHEM 32 or CHEM 208A, or CHEM 212A; and MATH 40 or placement in a higher level math course
Advanced topics in general and biological chemistry, including equilibrium processes, gene expression, DNA manipulation and analysis, biochemical transformations, specialized biomolecules, enzymes, metabolic pathways, and nuclear chemistry. CSU

CHEM 40. Introduction to Chemical Principles (4)
Lec-3, conf-1, lab-3  P/NP available
Prereq.: ET 108B or MATH 40 or placement in MATH 60 or higher
Students may enroll in this course to remove a high school deficiency in chemistry. Designed to prepare the beginning student as well as to strengthen the re-entry student for CHEM 101A or 103A. Students who take CHEM 40 will not receive credit if they have completed CHEM 101A or 103A within the previous three years. Students who plan to enroll in CHEM 101A or 103A are advised to take MATH 60 concurrently.
An introductory study of the fundamental laws and concepts of classical and modern chemistry, including dimensional analysis, nomenclature, stoichiometry, gases, solutions and atomic and molecular structures. CSU/UC

CHEM 65A. Introduction to GC-MS (0.5)
Lec-7, lab-6 (total hrs)  P/NP available
Principles and applications of gas chromatography and mass spectrometry, including the technique's growing use in biotechnology, qualitative analysis and identification of unknown compounds, quantitative analysis of solutes, and method development using a computer interface. CSU

CHEM 65B. Introduction to HPLC (0.5)
Lec-7, lab-6 (total hrs)  P/NP available
Principles and applications of HPLC, with a focus on uses in biotechnology, qualitative and quantitative analysis, and method development using a computer interface. CSU

CHEM 65C. Introduction to Capillary Electrophoresis (0.5)
Lec-7, lab-6 (total hrs)  P/NP available
Principles and practical applications of capillary electrophoresis, including biotechnology applications, qualitative analysis and identification of unknown compounds, quantitative analysis of solutes, and method development using a computer interface. CSU

CHEM 65D. Introduction to AA Spectroscopy (0.5)
Lec-7, lab-6 (total hrs)  P/NP available
Principles and practical applications of atomic absorption (AA) spectroscopy, including environmental analysis and identification of unknown elements, and quantitative analysis of elements and ions. CSU

CHEM 80-81-82-83. Selected Topics in Chemistry (0.5-1-2-3)
Lec-0.5, 1, 2, 3, field trips  P/NP available
Repeat: if no subject repeat
Investigation in depth of selected topics in chemistry, such as: considering current issues and innovations, expanding subjects covered briefly in introductory courses, exploring topics not studied in other classes in chemistry, or instruments newly available. CSU

CHEM 85. Seminar in Chemistry (1)
Lec-1.5  P/NP available
Repeat: max. 4 units
Discussions on current research in chemistry, biochemistry, and related fields. Presentations on career opportunities for students studying chemistry, as well as on study strategies for chemistry courses. CSU

CHEM 90-91-92. Laboratory Projects in Chemistry (0.5-1-2)
Lab-1.5, 3, 6, field trips  P/NP available
Repeat: if no subject repeat
Investigation in depth of selected laboratory techniques in chemistry, such as: methods of analysis using instruments available at CCSF or elsewhere; computer modeling using research-quality software; or groups of experiments not part of the curriculum in a currently-offered chemistry course at CCSF. CSU

CHEM 101A. General College Chemistry (5)
Lec-4, lab-6
Prereq.: CHEM 40, 50, or an Advanced Placement test score of 3 or higher, or placement in CHEM 101A/103A by examination
CHEM 101B. General College Chemistry (5)
Lec-3, lab-6
Prereq.: CHEM 101A or 103A
Chemical kinetics, applications of aqueous equilibrium, chemical thermodynamics, oxidation and reduction, electrochemistry, symmetry, crystal structures and solid state chemistry, transition metal ions, descriptive chemistry of selected elements, and introduction to organic chemistry. CSU/UC (C-ID CHEM 120S = CHEM 101A + CHEM 101B)

CHEM 101L. General Chemistry Lab I (2)
Lab-6
Prereq.: A lecture course equivalent to CHEM 101A
CHEM 101L is open to students who have previously passed the lecture portion of first-semester general chemistry and who now need to satisfy the laboratory requirement. Students who have passed CHEM 101A or CHEM 103A may not receive credit for CHEM 101L.
The laboratory component of CHEM 101A. CSU

CHEM 102L. General Chemistry Lab II (2)
Lab-6
Prereq.: A lecture course equivalent to CHEM 101B
CHEM 102L is open to students who have previously passed the lecture portion of second-semester general chemistry and who now need to satisfy the laboratory requirement. Students who have passed CHEM 101B may not receive credit for CHEM 102L.
The laboratory component of CHEM 101B. CSU

CHEM 103A. General Chemistry for Engineering (4)
Lec-4, lab-3
Prereq.: CHEM 40, 50, or an Advanced Placement test score of 3 or higher, or placement in CHEM 101A/103A by examination and advising; AND MATH 60 or placement in any math course higher than MATH 60
Designed for students majoring in all engineering programs except chemical engineering. Students who have passed CHEM 101A may not receive credit for CHEM 103A.
Stoichiometry, gas behavior, solution properties and reactions, thermochemistry, atomic structure and bonding, properties of solids and liquids, special projects. CSU/UC

CHEM 107. Computers in Chemistry (2)
Lec-1, lab-3
Prereq.: Completion/concurrent enrollment in CHEM 101A or 103A
Spreadsheet programs and the BASIC programming language will be used as tools for problem solving, calculations, graphing and visual presentation of chemical data. Students will also use mathematical utilities programs in chemical settings. All projects utilize the principles taught in general chemistry. No prior computer experience is required. CSU/UC

CHEM 109. Chemistry for Nonscientists (3)
Lec-3, field trips
Open to all students except those who have completed CHEM 101A, 103A, or more advanced courses.
A non-mathematical presentation of chemical principles with emphasis on their relevance to modern life. Designed for non-science majors. CSU/UC

CHEM 110L. Laboratory for Nonscientists (1)
Lab-3
Prereq.: CHEM 101B
Recommended that CHEM 205 be taken soon after CHEM 101B

CHEM 205. Quantitative Analysis (4)
Lec-2, lab-6
Prereq.: CHEM 101B
The fundamentals of quantitative analysis. Solubility, acid-base, redox, complex formation equilibria and their applications in volumetric and gravimetric analysis. Selected topics in instrumental analysis. CSU/UC

CHEM 208A. Organic Chemistry (4)
Lec-3, lab-3
Prereq.: CHEM 101A or 103A
Students who have passed CHEM 212A may not receive credit for CHEM 208A.
The first semester of a one-year course in organic chemistry for students not majoring in chemistry or biochemistry. CHEM 208A/208B is designed for students majoring in the life sciences, including pre-medical students. CSU/UC

CHEM 208B. Organic Chemistry (4)
Lec-3, lab-3
Prereq.: CHEM 208A or 212A
Students who have passed CHEM 212B may not receive credit for CHEM 208B.
The continuation of CHEM 208A. CSU/UC

CHEM 208L. Organic Chemistry Lab I (1)
Lab-3
Prereq.: A lecture equivalent to CHEM 208A or 212A
CHEM 208L is open to students who have previously passed the lecture portion of first-semester organic chemistry and who now need to satisfy the laboratory requirement. Students who have passed CHEM 208A or 212A may not receive credit for CHEM 208L.
The laboratory component of CHEM 208A. CSU

CHEM 212A. Organic Chemistry (5)
Lec-4, lab-6
Prereq.: CHEM 101B
Students who have passed CHEM 208A may not receive credit for CHEM 212A. CHEM 212A may be substituted for CHEM 208A.
The first semester of a one-year course in organic chemistry for students majoring in chemistry, biochemistry, or other sciences. CHEM 212A/212B also satisfies the organic chemistry requirements of medical schools. CSU/UC

CHEM 212B. Organic Chemistry (5)
Lec-4, lab-6
Prereq.: CHEM 212A or 208A
Students who have passed CHEM 208B may not receive credit for CHEM 212B. CHEM 212B may be substituted for CHEM 208B.
The continuation of CHEM 212A. CSU/UC

CHEM 212L. Organic Chemistry Lab II (2)
Lab-6
Prereq.: A lecture equivalent to CHEM 208A
CHEM 212L is open to students who have previously passed the lecture portion of second-semester organic chemistry and who now need to satisfy the laboratory requirement. Students who have passed CHEM 212A may not receive credit for CHEM 212L.
The laboratory component of CHEM 212A. CSU

CHEM 212LL. Laboratory for Nonscientists (1)
Lab-3
Prereq.: CHEM 212A
Recommended that CHEM 212LL be taken soon after CHEM 208B

CHEM 215. Physical Chemistry I (4)
Lec-4, lab-3
Prereq.: CHEM 101A or 103A
The fundamentals of physical chemistry. Thermodynamics, kinetic theory, diffusion, and mass transport. CSU/UC

CHEM 216. Physical Chemistry II (4)
Lec-4, lab-3
Prereq.: CHEM 215
The fundamentals of physical chemistry. Physical chemistry and its relevance to modern life. Designed for non-science majors. CSU/UC
Learning Outcomes

Courses Required for the Major in Child Development

Announcement of Curricula

General Information

The Child Development and Family Studies Department provides educational curriculum for adult students interested in entering or continuing education for careers with children and provides services to support the needs of children and families from diverse backgrounds. The Department offers a wide variety of credit, noncredit and grant-funded programs and services that further understand how children learn, grow and develop, including: educational and practicum experiences for adults, quality ECE programs for infants, preschoolers and school-age children and youth and parent education programs at varied times and community locations throughout San Francisco and transfer courses for students interested in K – 12 teaching, CTE teaching and related careers.

Learning Outcomes

- Students will become prepared to work in group or individual settings with children and youth.
- Students will understand appropriate practice and planning necessary to meet the needs of children in group settings.
- Students will be able to support children in their development and will be able to create environments for growth.

Child Development Major (AS)

Admission. Enrollment is open to all students interested in working with children in Early Childhood Programs or in gaining knowledge needed to become employed in related professions such as K – 12 teacher, recreation worker, paraprofessional, youth worker or to transfer for further study.

Associate in Science Degree. The Child Development Program is designed so that students may satisfy the requirements for graduation from the College. For students interested in the Associate in Science Degree and Major (in Child Development) from City College, the requirements are as follows:

Courses Required for the Major in Child Development

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 65 Orientation to ECE Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, the Family, and the Community</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 53 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Intro to Early Childhood Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 93 Cultural Diversity in ECE</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 73 Observing and Assessing Children</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 92 Health, Safety, and Nutrition</td>
<td></td>
</tr>
</tbody>
</table>

in Early Childhood Programs 3

CDEV 72 Supervised Field Experience in Early Childhood 3

Health Coursework:

- HLTH 14 Advanced First Aid and Basic Life Support for Healthcare Providers
- HLTH 21 CPR, Childcare Health and Safety Education
- HLTH 11A Pediatric CPR and First Aid
- HLTH 11B Pediatric Preventive Health Education 1–3

Required Electives (6 units):

- 6 additional units of Child Development (CDEV) coursework 6

Total 31 – 33

The Degree curriculum requires a total of 60 semester units. After completing 30 units from the Child Development Department AND the 18 – 24 units of General Education Requirements, a student may enroll in any course (as elective) to total the 60 units for an A.S. Degree.

Child Development: Administration Certificate

A "Certificate of Achievement" will be granted upon successful completion of the required number of units in course work. A grade of "C" or better is required in all certificate courses.

Upon completion of this certificate students will be able to:

- Identify the basic competencies and general regulatory requirements needed to administer a child development program.
- Define the component of supervision needed to lead a child development program.

Courses Required for the Certificate of Achievement in Child Development: Administration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Develop</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 65 Orientation to ECE Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Intro to Early Childhood Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, Family, and Community</td>
<td>3</td>
</tr>
</tbody>
</table>

Area of Specialization: Administration

- CDEV 90 Early Childhood Admin I 3
- CDEV 91 Early Childhood Admin II 3

Total Units 18

Child Development: Appreciating Diversity Certificate

A "Certificate of Accomplishment" will be granted upon successful completion of the required number of units in course work. A grade of "C" or better is required in all certificate courses.

Upon completion of this certificate students will be able to:

- Recognize and define practices that support inclusion and equity in settings for children.
- Consider diverse perspectives and experiences when designing curriculum for children.

Courses Required for the Certificate of Accomplishment in Child Development: Appreciating Diversity

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 93 Cultural Diversity in ECE</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 76 Supporting LGBT Families in ECE</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 6
## Child Development: Family Childcare Certificate

A "Certificate of Accomplishment" will be granted upon successful completion of the required number of units in course work. A grade of "C" or better is required in all certificate courses.

The Family Childcare Certificate requires completion of 6 units from the courses listed below:

### Courses Required for the Certificate of Accomplishment in Child Development: Family Childcare

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 70 Family Childcare</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41F Serving Children with Special Needs</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41G Comm with Parents and Guardians</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41H Environments in Family Childcare</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41I Adv Business Practices</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41J Infant/Toddler Development</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41K Infant/Toddler Curriculum</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41N Music and Movement in FCC</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41O Outdoor Learning in FCC</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41P Mixed Ages in FCC,</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41Q Advancing Careers in FCC</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41R Recruiting Infants into FCC</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41S Learning Activities in FCC</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41V Exploring Math in FCC</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 41W Exploring Science in FCC</td>
<td>1</td>
</tr>
<tr>
<td>CDEV 44 Environ Rating Scale Family CC</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units** ................................................. 6

## Child Development: General Certificate

A "Certificate of Achievement" will be granted upon successful completion of the required number of units in course work. A grade of "C" or better is required in all certificate courses. CDEV 72, Supervised Field Experience, is strongly recommended for those students planning to work in early childhood classroom settings with children.

Upon completion of this certificate students will be able to:

- Understand and describe child development, the role of families and communities in children's lives, developmentally appropriate curriculum in early childhood education, and programmatic philosophies/approaches to early childhood education.

### Courses Required for the Certificate of Achievement in Child Development: General

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Develop</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 65 Orientation to ECE Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Intro to Early Childhood Curr</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, Family, and Community</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses: 6 units required from following courses:**

- CDEV 41M Substitute Teaching in ECE Programs
- CDEV 41U Dual Language Learning in EC
- CDEV 46 Teacher Child Interactions Using CLASS
- CDEV 64 Intro to Stress and Coping in ECE
- CDEV 68 Interactions with Children
- CDEV 73 Observing and Assessing Young Children
- CDEV 77 Diverse LGBT Issues in ECE
- CDEV 80 Literacy Development - Schoolage Child
- CDEV 81 Early Literacy Development - Preschool
- CDEV 82 Heads Up Reading A
- CDEV 83 Heads Up Reading B
- CDEV 84 Heads Up Reading C

**Total Units** ................................................. 18

## Child Development: Infant/Toddler Care Certificate

A "Certificate of Achievement" will be granted upon successful completion of the required number of units in course work. A grade of "C" or better is required in all certificate courses.

Upon completion of this certificate students will be able to:

- Understand the critical elements of developmental needs for infants and toddlers.
- Apply an understanding of infant and toddler development when caring for infants and toddlers in group settings.
- Students will examine and analyze appropriate curriculum choices for infants and toddlers.

### Courses Required for the Certificate of Achievement in Child Development: Infant/Toddler Care

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Develop</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 65 Orientation to ECE Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Intro to Early Childhood Curr</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, Family, and Community</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective courses: 6 units required from following courses:**

- CDEV 61 Infant/Toddler Growth and Develop
- CDEV 62 Infant/Toddler Curr
- CDEV 61 Relationship-based Infant Toddler care

**Total Units** ................................................. 18

## Child Development: Pre-Teacher Certificate

A "Certificate of Accomplishment" will be granted upon successful completion of the required number of units of coursework. A grade of "C" or better is required in all certificate courses.

Upon completion of this certificate students will be able to:

- Understand the role of K-12 teacher, common standards, the pathway to teaching K-12 and core educational issues like bilingual education and educational equity.
- Articulate teaching strategies for engaging diverse learners and facilitating the success of K-12 students.

### Courses Required for the Certificate of Accomplishment in Child Development: Pre-Teacher

The Pre-Teacher Certificate requires completion of 12 units from the courses listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Develop</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, the Family &amp; the Community</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 71 Elementary Supervised Field Experience</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 75 High School Supervised Field Experience</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 120 Special Education K-12</td>
<td>3</td>
</tr>
</tbody>
</table>
Upon completion of this certificate students will be able to:

- Articulate the best practices and integrate core school-age development competencies into programming elements.

### Courses Required for the Certificate of Achievement in Child Development: School-Age Care

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 65 Orientation to ECE Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Intro to Early Childhood Curr</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, Family, and Community</td>
<td>3</td>
</tr>
</tbody>
</table>

### Area of Specialization: School-Age Care

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 95 School-Age Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 97 School-Age Child Growth &amp; Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** .......................................................... 18

---

### Child Development: Professional Development and Advocacy Certificate

A "Certificate of Achievement" will be granted upon successful completion of the required number of units in course work. A grade of "C" or better is required in all certificate courses. CDEV 72, Supervised Field Experience, is strongly recommended for those students planning to work in classroom settings with children.

### Courses Required for the Certificate of Achievement in Child Development: Professional Development and Advocacy

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 65 Orientation to ECE Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Intro to Early Childhood Curr</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, Family, and Community</td>
<td>3</td>
</tr>
</tbody>
</table>

### Area of Specialization: Professional Development and Advocacy

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 95 School-Age Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 97 School-Age Child Growth &amp; Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** .......................................................... 18

---

### Child Development: Violence Intervention in Early Childhood Certificate

A "Certificate of Achievement" will be granted upon successful completion of the required number of units in course work. A grade of "C" or better is required in all certificate courses.

Upon completion of this certificate students will be able to:

- Understand and articulate the impact of violence and trauma on children and families.
- Describe violence prevention and intervention strategies for children, families and communities.
- Demonstrate individualized interventions for children who have experienced trauma.

### Courses Required for the Certificate of Achievement in Child Development: Violence Intervention in Early Childhood

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Develop</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Intro to Early Childhood Curr</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, Family, and Community</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 100 Violence and Its Impact on Children and Their Families</td>
<td>3</td>
</tr>
</tbody>
</table>

### Area of Specialization: Violence Intervention

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 72 Supervised Field Exp. in Early Childhood</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** .......................................................... 18

---

### Transfer to BA/BS Credential Programs

The Teacher Prep Center in the Child Development and Family Studies Department at City College of San Francisco can help you if you are interested in transfer or need support to obtain elementary, secondary, or CTE credentials or an advanced degree. We have information, resources and advice for students interested in teaching as a career.

For additional information, please call or visit the Teacher Prep Center at the Ocean Campus, Multi-Use Bldg. Room 249 at (415) 239-3890 or at www.ccsf.edu/cdev

The Early Childhood Professional Development Project (PDP) For students interested in obtaining a child development permit, learning more about ECE careers, seeing an ECE advisor, or working with young children in child development settings, the Professional Development Project at the Teacher Prep Center can assist you. For additional information, call PDP at the Ocean Campus, Multi-Use Bldg. Room 249 at 452-5605. www.ccsf.edu/cdev
Child Development: Youth Worker Certificate

A certificate of achievement will be granted upon successful completion of the required number of units in coursework. A grade of "C" or better is required in all certificate courses.

Upon completion of this certificate students will be able to:

- Define the emerging field of youth worker and examine the variety of settings where youth are served.
- Consider the developmental needs of older children and youth when planning curriculum for youth programs in the community.
- Demonstrate a knowledge of best practices and articulate core youth development competencies.

Courses Required for the Certificate of Achievement in Child Development: Youth Worker

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 53 Child Growth and Development or CDEV 97 School-Age Child Growth &amp; Dev.</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, the Family, and the Community</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 65 Youth Development and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 78 Supervised Field Experience in Community Youth Organizations</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 79 Youth Program Development</td>
<td>3</td>
</tr>
</tbody>
</table>

At least 1 unit from the following courses:

- HLTH 11A Pediatric CPR and First Aid
- HLTH 11B Pediatric Preventive Health Ed
- HLTH 13 Standard First Aid
- HLTH 12 Health Providers Basic Life Support/First Aid

At least 2 units from the following courses:

- IDST 80A Diversity: Racism
- IDST 80C Diversity: Sexism
- IDST 80D Diversity: Heterosexism
- IDST 80E Diversity: Ableism
- IDST 80F Diversity: Classism
- IDST 80G Diversity & Social Justice: Transphobia
- IDST 81A Diversity: Ageism and Adultism
- IDST 81B Diversity: Anti-Semitism/Anti-Arabism

Electives: Students must complete 6 units from the following courses:

- ADMJ 51 Juvenile Procedures
- ADMJ 59 Organized Crime and Gangs
- HLTH 38 Trauma Response and Recovery
- HLTH 67 HIV/STI Prevention
- HLTH 116 Conflict Resolution Skills in the Healthcare Work Place
- HLTH 30 Drugs and Society
- CDEV 95 School-Age Curriculum
- CDEV 97 School-Age Development
- CDEV 100 Violence and Its Impact on Children and Their Families
- WOMN 54 Politics of Sexual Violence
- WOMN 55 Ending Sexual Violence-Peer Educators
- LERN 68: Successful Career Coaching for Youth Workers

Total Units ........................................... 24

Special Education: Early Intervention or K-12 Focus Certificate

A Certificate of Achievement will be granted upon successful completion of the required number of units in coursework. A grade of "C" or better is required in all certificate courses. The Special Education Certificate: Early Intervention Focus or K-12 Focus, requires completion of 18 units total, including the 12 required units below and 6 additional units from the courses listed under "Electives."

Upon completion of this certificate students will be able to:

- Understand and describe differentiated teaching strategies for creating inclusive classrooms and engaging children with diverse learning styles, strengths and needs.
- Describe sensory and learning challenges and identify strategies to address them.
- Demonstrate an understanding of various special needs and describe appropriate interventions.

Courses Required for the Certificate of Achievement in Special Education: Early Intervention or K-12 Focus

Option 1: Early Intervention Focus

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 67 Child, Family Community</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 53 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 66 Introduction to Early Childhood Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 74 Children with Special Needs</td>
<td>3</td>
</tr>
</tbody>
</table>

Option 2: K-12 Special Education Focus

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 67 Child, Family Community</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 97 School-Age Child: Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 95 School-Age Childcare Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 120 Special Education K-12</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Electives (6 units from the following)

- CDEV 96 Understanding Children with Difficult Behaviors in Early Childhood Programs
- CDEV 41T Early Care for Children with Autism
- CDEV 99 Sensory Processing Disorder in Children
- CDEV 121 Children with AD/HD
- CDEV 122 Social Emotional Disturbance
- CDEV 123 Learning Disabilities
- CDEV 124 Individualized Education Plans
- CDEV 125 Children’s Mental Health
- AMSL 1A Elementary Sign Language

Total Units ........................................... 18

Introduction to Child Development Careers Noncredit Certificate*

*This program is pending state approval.

Please refer to the online version of the Catalog.

Announcement of Courses

Child Development

Credit, Degree Applicable Courses:

CDEV 41-42-43. Selected Topics in Child Development (.5-1-2-3)

Lec-1, 2, 3, field trips P/NP available

The content of these courses varies. Students may re-enroll for additional credit if they do not repeat the same topic.

Investigation in depth of selected topics in Child Development. CSU
CDEV 41A. The High/Scope Curriculum
CDEV 41B. Issues in Child Development-The Mentor Teacher Seminar
CDEV 41C. Issues in Child Development-The Mentor Director Seminar
CDEV 41D. The Child Development Permit and Professional Growth Advising
CDEV 41E. Issues in Child Development-Starting a Child Care Center or Large Family Child Care Home in San Francisco
CDEV 41F. Serving Children with Special Needs in Family Childcare
CDEV 41G. Communicating with Parents and Guardians in Family Childcare
CDEV 41H. Environments in Family Childcare
CDEV 41I. Advanced Business Practices in Family Childcare
CDEV 41J. Infant/Toddler Development in Family Childcare
CDEV 41K. Infant/Toddler Curriculum in Family Childcare
CDEV 41L. Advocacy and Professional Standards
CDEV 41M. Substitute Teaching in ECE Programs
CDEV 41N. Music and Movement in Family Child Care
CDEV 41O. Outdoor Learning in Family Child Care
CDEV 41P. Mixed Ages in Family Child Care
CDEV 41Q. Advancing Careers in Family Child Care
CDEV 41R. Recruiting Infants into Family Child Care
CDEV 41S. Learning Activities in Family Child Care
CDEV 41T. Early Care for Children with Autism
CDEV 41U. Dual Language Learning in Early Childhood
CDEV 41V. Exploring Math in Family Child Care
CDEV 41W. Exploring Science in Family Child Care

CDEV 44. Eniron Rating Scale Family CC (1)
Repeat: max. 2 units
An overview of the Environmental Rating Scale for family child care providers in multi-age groupings. Self-assessment and study methods for quality environments will be examined. Practical applications of the rating scales will be emphasized. CSU

CDEV 45. ITERS & ECERS Rating Scales (1)
Repeat: max. 2 units
An overview of the Environmental Rating Scale for infant, toddler, and preschool child care providers and teachers. Self-assessment and study methods for quality environments will be examined. Practical applications of the rating scales will be emphasized. CSU

CDEV 46. Teacher-Child Interactions in Early Care and Education Using the Classroom Assessment Scoring System (CLASS) (1)
Repeat: max. 2 units
Overview of the Classroom Assessment Scoring System (CLASS) with and emphasis on the importance of adult-child interactions for development and learning outcomes and the analysis of classroom practice.

CDEV 53. Child Growth and Development (3)
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception to adolescence, with an emphasis on interactions between maturational processes and environmental factors. Developmental theory, investiga
tive research methodologies, observation of children, evaluation of individual difference and analysis of development at various stages. CSU/UC

CDEV 61. Infant/Toddler Growth and Development (3)
Lec-3
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Physical/sensory-motor, social-emotional, and cognitive/language development of prenatal throughout the first three years will be studied with an emphasis on interactions between genetic and environmental factors. Brain development research and major developmental theories. Development and learning outcomes and the analysis of classroom practice. Caring adults as a foundation for all development will be emphasized. CSU

CDEV 62. Infant/Toddler Care in Group Settings (3)
Lec-3
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Introduction to relationship-based care in infant/toddler programs supported by current brain development research. Curriculum planning is based on observation, meeting infants/toddlers' needs and providing positive guidance. Focus is on primary care, continuity of care, individualized care in small groups. CSU

CDEV 64. Introduction to Stress and Coping in Early Childhood and Elementary School Programs (3)
Lec-3

CDEV 65. Orientation to ECE Principles and Practice (3)
Lec-3
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Principles of developmentally appropriate practices applied to programs and environments; the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting development across all domains for all children. Historical roots of early childhood programs and the evolution of professional practices promoting advocacy, ethics and professional identity. CSU (C-ID: ECE 120)

CDEV 66. Introduction to Early Childhood Curriculum (3)
Lec-3
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Appropriate curriculum and environments for children from birth to age 6. Teachers' roles in supporting development and joy of learning for all children using observation and assessment and emphasizing the essential role of play through language, literacy, social/emotional learning, physical/motor activity, sensory learning, art, creativity, math and science. CSU
CDEV 67. The Child, the Family, and the Community (3)
Lec-3
Advis: ESL 130 or ENGL 90 or ENGL 91 or Placement in ESL 140 or ENGL 92
An examination of the developing child in a societal context focusing on the interrelationship of family, school and community and emphasizing historical and socio-cultural factors. The processes of socialization and identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families. CSU/UC

CDEV 68. Interactions with Children (3)
Lec-3
Elements of children's interactions and their relationships with adults and other children; dynamics of social interaction in the context of child growth and development; motivation and management of social behavior of young children. Dynamics in working with adults in childcare setting. Emphasis on the child in urban settings. Overview of current trends in infant and day care. CSU

CDEV 70. Family Childcare (1)
Lec-1
Overview of the operation and development of a family childcare home business. Information on California licensing regulations, operational procedures, and marketing efforts. CSU

CDEV 71. Elementary Supervised Field Experience (3)
Lec-1, conference-2, work-5
Advis: ESL 130 (or Placement in ESL 140), or ENGL 90 (or Placement in ENGL 92)
Repeat: max. 6 units
Supervised work experience in group programs for elementary-age children. Observation and evaluation of school-age children, planning group activities and the role of adults in elementary schools will be examined. This course will fulfill the pre-admission field experience requirement for CSU Credential Programs for future elementary teachers. CSU

CDEV 72. Supervised Field Experience in Early Childhood (3)
Lec-1, conference-2, work-5
Prereq.: CDEV 53 and CDEV 66 and CDEV 67
Advis: ESL 130 (or Placement in ESL 140), or ENGL 90 (or Placement in ENGL 92)
Repeat: max. 6 units
A demonstration of children's interactions and their relationships with adults and other children; dynamics of social interaction in the context of child growth and development; motivation and management of social behavior of young children. Child centered, play-oriented teaching, learning, assessment and curriculum emphasized as students design, implement and evaluate experiences for development and learning for all young children. CSU

CDEV 73. Observing and Assessing Young Children (3)
Lec-3
Advis: ESL 130 or ENGL 90 or ENGL 91 or Placement in ESL 140 or ENGL 92
This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children's success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. CSU

CDEV 74. Children with Special Needs (3)
Lec-3, field trips
Advis: ESL 130 or ENGL 90 or ENGL 91 or Placement in ESL 140 or ENGL 92
Early childhood teachers and paraprofessionals will explore the developmental strengths and needs of young children 0-5 with special needs and inclusion strategies and techniques for partnering with families. CSU

CDEV 75. High School Supervised Field Experience (3)
Lec-1, conference-2, work-5
Advis: ESL 130 (or Placement in ESL 140), or ENGL 90 (or Placement in ENGL 92)
Repeat: max. 6 units
This course provides supervised fieldwork in high school or middle school classrooms with children or youth. Lab hours in actual classrooms will be combined with lectures covering observation, evaluation and curriculum planning strategies, the role of the adult and the student-learner. An overview of the California Curriculum Content Standards will be included. This course will fulfill the pre-admissions field experience requirement for CSU/UC Credential Programs for future secondary teachers. CSU/UC

CDEV 76. Supporting LGBT Families in ECE (3)
Lec-3
Advis: CDEV 67
Analysis of issues and challenges faced by lesbian, gay, bisexual and transgender parents and their children in early childhood settings and exploration of the role of early childhood educators and programs in creating inclusive environments. CSU
CDEV 76=LGBT 76

CDEV 77. Diverse LGBT Issues in ECE (3)
Lec-3
Prereq.: CDEV 76
Building upon CDEV 76, students will create inclusive curriculum for children, develop workshop sessions for caregivers/staff, learn about diverse religious and cultural experiences in lesbian, gay, bisexual and transgender (LGBT) communities, examine the relationships between culture, religion and LGBT issues, and develop skills to engage in dialogue about controversial issues. CSU

CDEV 78. Supervised Field Experience in Community Youth Organizations (3)
Lec-1, conf.-2, work experience-5
Advis: ESL 130 (or Placement in ESL 140) or ENGL 90 (or Placement in ENGL 92)
Repeat: max. 6 units
Supervised work experience in youth serving agencies to make connections between theory and practice. Observation and evaluation of school-age children and youth, planning group activities and the role of adults in youth programs will be examined in this course. This course fulfills the requirement for the Community Youth Certificate. CSU

CDEV 79. Youth Program Development (3)
Lec-3
Advis: ESL 130 (or Placement in ESL 140) or ENGL 90 (or Placement in ENGL 92)
Students will explore the various aspects of programming for youth ages 9-18 including curriculum planning, observation, evaluation and assessing developmental needs. Youth settings and programs will be examined emphasizing the cultivation of an assets-based model of
youth development and leadership principles. This course fulfills the requirement for the Community Youth Certificate. CSU

CDEV 80. Literacy Development - School-Age Child (1)
Lec-3 (6 wks)
Advis: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170
Strategies for early childhood assistants to help children from kindergarten through third grade develop basic concepts of print and beginning reading; begin to read stories and write about topics that are meaningful to them; use various text forms; and extend and refine reading and writing to suit varying purposes and audiences. CSU

CDEV 81. Early Literacy Development - Preschool Child (1)
Lec-3 (6 wks)
Advis: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170
Strategies for early childhood assistants to help preschool children develop pre-reading and pre-writing skills with an emphasis on developmentally appropriate practices to use with children who speak a variety of languages. Students will learn to select books and materials; engage children in shared literary experiences; and promote early experiments with writing. CSU

CDEV 82. Heads Up Reading A (1)
Lec-1
P/NP only
Introduction to early literacy development with emphasis on children from birth to age 5. Techniques to create literacy environments for children; plan engaging curriculum to support language and literacy; and involve families in supporting literacy of children from diverse backgrounds. CSU

CDEV 83. Heads Up Reading B (1)
Lec-1
P/NP only
Strategies to enhance the early literacy outcomes of young children birth to age 5. Different dimensions of the basic topics presented in Heads Up Reading A. May be taken independently. CSU

CDEV 84. Heads Up Reading C (1)
Lec-1
P/NP only
Methods to prepare early literacy curriculum and environments for young children from birth to age 5. Different dimensions of the basic topics presented in Heads Up Reading A and B. May be taken independently. CSU

CDEV 85. Relationship-based Infant/Toddler Care (3)
Lec-3
Principles and practices of relationship-based care that support infant/toddler social-emotional development, learning during routine care and play activities, and development of language and communication. The parent-provider partnership is explored as key to understanding children and keeping them connected to the family and culture. CSU

CDEV 86. Advanced Supervised Field Experience in the Early Childhood Setting (3)
Lec-1, conf-2, work-5, field trips
Prereq.: CDEV 72
Advis: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Building upon CDEV 72, students will further their practical teaching experience in the early childhood setting. Explores intentional teaching, personalizes students’ teaching experiences and expands their reflective, self-evaluative abilities. CSU

CDEV 87. Promoting Social and Emotional Competence in Young Children (3)
Lec-3
Advis: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Students will learn strategies to promote children’s social and emotional development and tools to address challenging behaviors and mental health needs. Course includes interrelated levels of practice in developing positive relationships with children, families and colleagues; creating supportive environments; utilizing social and emotional teaching strategies to provide intensive, individualized interventions. CSU

CDEV 90. Early Childhood Education Administration I (3)
Lec-3
Emphasis on the business aspects of early childhood education programs. Setting up a childcare program; legal requirements for childcare settings; laws relating to early childhood education; facets of business management. CSU

CDEV 91. Early Childhood Education Administration II (3)
Lec-3
Emphasis on the human relations as a necessary part in the administration of early childhood education programs. Staffing; parent involvement; communication guides for director-teacher, teacher-leader, and teacher-parent relationships. CSU

CDEV 92. Health, Safety, and Nutrition in Early Childhood Programs (3)
Lec-3
Advis: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Introduction to laws, regulations, standards, curriculum, policies and procedures related to health safety and nutrition for all children. Components that ensure physical health, mental health and safety for children and staff and the importance of collaboration with families and health professionals. Focus on integrating concepts into planning and program development. CSU (C-ID ECE 220)

CDEV 93. Cultural Diversity in Early Childhood Education (3)
Lec-3
Advis: ESL 130 or ENGL 90 or ENGL 91 or placement in ESL 140 or ENGL 92
Theoretical and practical implications of social identity, oppression and privilege for young children, families, programs, and teaching. Strategies for culturally and linguistically appropriate anti-bias approaches supporting all children in a diverse society. Self-examination and reflection on social identity, stereotypes and bias, social and educational access, media and schooling. CSU (C-ID ECE 230)

CDEV 94. Literacy Development in Early Childhood (3)
Lec-3
An integrated approach to emerging language and literacy in the early years based on the needs and interests of the children. Emphasis on how teachers can support whole language learning and literacy development with consideration of the child’s home language and culture. CSU

CDEV 95. School-Age Childcare Curriculum (3)
Lec-3
Exploration of understanding child development and family concerns that are essential in planning a developmentally appropriate school-age childcare program. Emphasis will be upon: relating to children and
parents, age appropriate activities, positive guidance, and planning the environment. CSU

CDEV 96. Understanding Children with Difficult Behaviors in Early Childhood Programs (3)
Lec-3
Causes of difficult behavior in young children enrolled in group settings. Emphasis on recent research in brain development, neuropsychology and nutrition. Necessary changes in attitudes and responses of the involved adults. CSU

CDEV 97. School-Age Child: Growth and Development (3)
Lec-3
Introduction to human growth and development from ages five through twelve, covering physical, cognitive, language and social development of the child. Developmental theories will be introduced and issues affecting the lives of school-age children in contemporary society will be explored. CSU

CDEV 98. Sensory-Motor Development and Activities in Early Childhood Programs (3)
Lec-3
Prereq.: Completion/concurrent enrollment in CDEV 53
Introduction to sensory-motor development in young children (birth - age 8) with a focus on large and small motor skills. Emphasis on understanding the critical factors that promote sensory-motor processing and interaction. Includes activities that enhance the role of the early childhood educator. CSU

CDEV 99. Sensory Processing Disorder in Children (1)
Lec-16 (total hrs)
Advised: CDEV 53
Overview of issues related to Sensory Processing Disorder in young children, with an emphasis on early identification and intervention strategies. The class will explore how autism, developmental dyspraxia, ADHD and other neurodevelopmental disabilities are affected by Sensory Processing Disorder (SPD). CSU

CDEV 100. Violence and Its Impact on Children and Their Families (3)
Lec-3
P/NP available
An Exploration of violence and its impact on the physical and psychological well-being of children, families, early childhood teachers and others. Emphasis is on early relationships and how they affect a child's worldview, plus practitioner self-care and multi-cultural awareness. CSU

CDEV 101. Introduction to Violence Intervention for Children and Their Families (3)
Lec-3
Overview of violence prevention strategies that are appropriate for early childhood programs. Building on skills developed in CDEV 100, this course focuses on early childhood teachers the knowledge and skills to respond to the needs of children and families who experience stress and chronic violence. CSU

CDEV 105. Supervising Adults in Early Childhood Programs (2)
Lec-3 (12 wks)
Prereq.: CDEV 90 or 91
Methods and principles of supervising adults in early childhood classrooms. Emphasis on the role of the experienced teacher who functions as the supervisor to center staff. Explores the head teacher's relationship to new teachers while simultaneously addressing the needs of children, parents and other staff. CSU
This course will provide an opportunity for students to explore the Lec-3
CDEV 150. Orientation to Education (3)
strategies for children and teachers. CSU

tional development. Emphasis on fostering social-emotional coping
Learn about emotional development of children and strategies for
or ENGL 92
Lec-1
CDEV 121. Children with AD/HD (1)
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESI 140
Explore behaviors, strengths, and needs of children with AD/HD
or ENGLISH 90 or ENGLISH 91 or placement in ESI 140
and develop teaching strategies that support them and their families.
Lec-1
CDEV 124. Individualized Education Plans (1)
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESI 140
Learn about Individualized Education Programs and Plans (IEPs) and
or ENGLISH 92
Lec-1
CDEV 125. Children's Emotional Development (1)
Advise: ESL 130 or ENGL 90 or ENGL 91 or placement in ESI 140
Learn about emotional development of children and strategies for
or ENGLISH 92
Lec-1
CDEV 150. Orientation to Education (3)
This course will provide an opportunity for students to explore the
Lec-3
teaching profession as a career. Various settings for teaching, with
specific emphasis on K-12 opportunities. California state requirements
for becoming a credentialed teacher, the educational preparation
involved and the steps to securing field experience and a teaching
position. History of education in America will be presented, and an
overview of the roles of the teacher will be covered. Students will also
assess their individual strengths as they relate to the demands of the
profession and identify the developmental needs of children in group
settings. CSU

ESL 51A. ESL for Child Development (3)
Lec-3
Prereq.: Placement in ESL 52 and 54; or 130 or higher or
completion of ESL 42 and 44; or 48 or 120; may be taken con-
currently with either CDEV 65 or 66, or alone
Repeat: max. 9 units

Family Studies
Credit, Degree Applicable Courses:
CDEV 151. Introduction to Foster Parenting (2)
Lec-2
Exploration of the role of the foster parent. Emphasis on human
development from birth through adolescence, communication skills,
sociological/psychological fostering issues and cultural/community
resources. Elements on ways in which the foster parent can nurture the
foster child. CSU

CDEV 152. Positive Parenting (2)
Lec-2
Basic knowledge of parent and child growth and development.
Nurturing approaches to utilizing positive stress management tech-
niques in parenting and living. Designed for parents whose children
are presently in out-of-home care or in danger of being placed in out-
of-home care. CSU

CDEV 155. Advanced Positive Parenting (3)
Lec-3
An in-depth analysis of positive parenting knowledge, skills and
behaviors, as well as a careful examination of the societal pressures
faced by families and corresponding support services. Developed for
parents who have reunited their families (after legal and social inter-
vention). CSU

Noncredit Courses:
Infancy and Early Childhood
CDEV 8002. Parents and Infants (45 hrs)
Informal lecture and discussion on infant development during the
first seven months of life and issues of concern to new parents. Covers
characteristics of normal development, daily routines and feeding
practices, and impact of the infant on the family.

CDEV 8003. Infant Development (45 hrs)
Informal discussion on the growth and development of infants 8-14
months of age are held in an enriched play environment. Topics
covered include physical, emotional, social and cognitive growth,
influence of environment on development, feeding concerns, and the infant’s impact on family.

**Preschool and School-Age Children**

CDEV 8100. Child Observation (45 hrs)
An exploration of child growth and development through observation and interaction with preschool children; child rearing practices; effective parenting; positive decision making in family life; utilization of community resources.

CDEV 8101. The Child Development Lab School (54 hrs)
A family-focused study of child growth and development and family resources utilizing laboratory child development facilities. Practice in utilizing teaching techniques while interacting with young children. Provide educational opportunities and community services resource information for students and parents.

CDEV 8104. Parent Participating Class (270-306 hrs)
An exploration of early childhood development with an emphasis on parent/child relationships, community resources and parent/child communication. Discussion of the developmental needs of children 2-5 years. (Parent attends 5-17 hours.)

CDEV 8112. The Preschool Child in Child Care (54 hrs)
Study of child growth and development in laboratory setting. Provides a laboratory learning environment for observing children, three to five years old.

CDEV 8117. Current Issues in Childcare (90-450 hrs)
Classes designed for parents and guardians of children enrolled in childcare programs. Each class focuses on a specific aspect of childcare affecting parents/guardians of preschool and school-age children. Topics include the relationship of the childcare program to the family and how childcare relates to the needs of children.

**Parenting**

CDEV 8202. Foster Parenting (18 hrs)
The role of the foster parent. Emphasis on human development from birth through adolescence. Topics include separation and grieving; drug and sexual education for adolescents; the role of foster parents and biological parents; community resources including the agency and placement worker.

CDEV 8206. Parenting in the Business Community (45-54 hrs)
General principles of human development, birth through adolescence. Emphasis on issues for working parents, family dynamics, and community resources for childcare. (Classes may be available on-site at large business or at the college).

**Chinese**

**Chinese (Mandarin) Major (AA)**

**Program Information**. The Chinese program provides instruction in developing a student’s ability to communicate in Chinese, both written and oral, through the intermediate level and to gain a knowledge of Chinese cultures throughout the world. The program is designed to meet transfer goals as well as personal development and career growth. Students must complete the curriculum with final grades of C or higher in their major preparation.

**Degree Curriculum**. The Degree Curriculum in Chinese is a two-year course of study designed to build a strong language foundation as well as expose students to Chinese cultural content and some literature. Students who complete the curriculum are better prepared to transfer to the CSU and UC systems as well as other universities with the intent of majoring or minoring in Chinese.

**Courses Required for the Major in Chinese (Mandarin)**

Students must complete a minimum of 12 units chosen from

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 2 or 2A+2B Cont. of Elem. Chinese</td>
<td>5 or 6</td>
</tr>
<tr>
<td>CHIN 3 or 3A+3B Intermediate Chinese</td>
<td>5 or 6</td>
</tr>
<tr>
<td>CHIN 4 or 4A+4B Cont. of Intermed. Chin</td>
<td>5 or 6</td>
</tr>
<tr>
<td>CHIN 31A-31B Intermediate Mandarin for Bilingual Students</td>
<td>3-3</td>
</tr>
</tbody>
</table>

An additional six units must be completed from the following courses:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 1 or 1A+1B Elementary Chinese</td>
<td>5 or 6</td>
</tr>
<tr>
<td>CHIN 12B Cont. of Beg. Conv. Mandarin</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 12C Intermediate Conv. Mandarin</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 14B Conv. Mandarin for Speakers of Other Dialects: Level 2</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 14C Conv. Mandarin for Speakers of Other Dialects: Level 3</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 16 Chinese Characters for Beginners</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 17 Cont. of Chinese Char. for Beginners</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 29A-29B Chinese Lit. in Translation</td>
<td>3-3</td>
</tr>
<tr>
<td>CHIN 39 or 49 Major Achievement of Chinese Thought and Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** 18

**Chinese (Mandarin) Certificate**

The Certificate of Accomplishment in Chinese (Mandarin) provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 units in Chinese (Mandarin). Each course must be completed with a final grade of C or higher or Pass. At least 9 units must be selected from the core list. The remaining 6 units may be selected from the elective units.

**Courses Required for the Certificate of Accomplishment in Chinese (Mandarin)**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 1 Elementary Chinese</td>
<td>5</td>
</tr>
<tr>
<td>or CHIN 1A-1B Elementary Chinese</td>
<td>3-3</td>
</tr>
<tr>
<td>CHIN 2 Continuation of Elementary Chinese</td>
<td>5</td>
</tr>
<tr>
<td>or CHIN 2A-2B Continuation of Elem Chinese</td>
<td>3-3</td>
</tr>
<tr>
<td>CHIN 3 Intermediate Chinese</td>
<td>5</td>
</tr>
<tr>
<td>or CHIN 3A-3B Intermediate Chinese</td>
<td>3-3</td>
</tr>
<tr>
<td>CHIN 4 Continuation of Intermed Chinese</td>
<td>5</td>
</tr>
<tr>
<td>or CHIN 4A-4B Cont of Intermediate Chinese</td>
<td>3-3</td>
</tr>
<tr>
<td>CHIN 16 Chinese Characters for Beginners</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 17 Cont of Chinese Char for Beginners</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 31A, 31B Inter Chin for Biling Students</td>
<td>3-3</td>
</tr>
</tbody>
</table>

**Elective Courses**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 12A Beg Conversational Mandarin</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 12B Cont of Beg Conversational Mandarin</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 12C Intermed Conversational Mandarin</td>
<td>3</td>
</tr>
</tbody>
</table>

**Announcement of Curricula**

**Chinese (Mandarin) Major (AA)**

**Office**: Art 202  
**Phone Number**: (415) 239-3223  
**Web Site**: www.ccsf.edu/forlang
CHIN 1A-1B. Elementary Chinese (3-3)
Lec-3, lab-2  P/NP available
Prereq.: For CHIN 1B: CHIN 1A or demonstration of CHIN 1A exit skills
Advise: For CHIN 1A: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170 or completion of any City College or university foreign language course
Beginner’s course. Grammar, composition, and reading. Practice in speaking and understanding Mandarin. CSU/UC
CHIN 1A+1B = CHIN 1

CHIN 2. Continuation of Elementary Chinese (5)
Lec-5, lab-2  P/NP available
Prereq.: CHIN 1 or 1B or demonstration of CHIN 1/1B exit skills
Second semester course. Continuation of the study of grammar, composition, and reading. Practice in speaking and understanding Mandarin. CSU/UC

CHIN 2A-2B. Continuation of Elementary Chinese (3-3)
Lec-3, lab-2  P/NP available
Prereq.: For CHIN 2A: CHIN 1 or 1B or demonstration of CHIN 1/1B exit skills
Prereq.: For CHIN 2B: CHIN 2A or demonstration of CHIN 2A exit skills
Continuation of the study of grammar, composition, and reading. Practice in speaking and understanding Mandarin. CSU/UC
CHIN 2A+2B = CHIN 2

CHIN 3. Intermediate Chinese (5)
Lec-5, lab-1  P/NP available
Prereq.: CHIN 2 or 2B or demonstration of CHIN 2/2B exit skills
Third semester course. Grammar, composition and reading. Practice in speaking and understanding Mandarin. Understanding of Chinese culture. CSU/UC
formal grammar. Students will learn romanization with tone markings rather than Chinese characters. CSU

CHIN 12A. Beginning Conversational Mandarin (3)
Lec-3, lab-2
P/NP available
Not open to native speakers of Mandarin nor to speakers of other Chinese languages. These students should consider CHIN 14A, Conversational Mandarin for Speakers of Other Chinese Dialects: Level I.

Extensive oral training in Mandarin. Emphasis on practical vocabulary, pronunciation, and idiomatic usage. Designed for students who wish to acquire basic skills of spoken Mandarin rather than reading and writing in Chinese characters. CSU

CHIN 12B. Continuation of Beginning Conversational Mandarin (3)
Lec-3, lab-2
P/NP available
Prereq.: CHIN 12A or 1A or demonstration of CHIN 12A or 1A exit skills.

Second semester course. Continuation of extensive oral training in Mandarin. Emphasis on practical vocabulary, pronunciation, and idiomatic usage. Designed for students who wish to acquire basic skills of spoken Mandarin rather than reading and writing in Chinese characters. CSU

CHIN 12C. Intermediate Conversational Mandarin (3)
Lec-3, lab-2
P/NP available
Prereq.: CHIN 12B or CHIN 1 or IB or demonstration of CHIN 12B, 1 or IB exit skills.

Third semester course. Continuation of extensive oral training in Mandarin. Designed for students who wish to continue acquiring more advanced skills of the spoken language with a minimum of formal grammar. CSU

CHIN 14A. Conversational Mandarin for Speakers of Other Chinese Dialects: Level I (3)
Lec-3, lab-2
P/NP available
Not open to native speakers of Mandarin. Open to all beginning students of Mandarin who can speak at least one Chinese dialect. Recommended for Chinese speaking students and for students who have some knowledge of Chinese.

Beginner's course in Mandarin. Emphasis on practical vocabulary, pronunciation, and idiomatic usage. Designed for students who wish to acquire basic skills of spoken Mandarin rather than formal grammar and literature. CSU

CHIN 14B. Conversational Mandarin for Speakers of Other Chinese Dialects: Level 2 (3)
Lec-3, lab-2
P/NP available
Prereq.: CHIN 14A or demonstration of CHIN 14A exit skills

Not open to native speakers of Mandarin. Open to all students who can speak at least one Chinese dialect. Recommended for Chinese speaking students and for students who have some knowledge of Chinese.

Continuation of oral training in Mandarin. Emphasis on practical vocabulary, pronunciation, and idiomatic usage. Designed for students who wish to acquire basic skills of spoken Mandarin rather than formal grammar and literature. CSU

CHIN 14C. Intermediate Conversational Mandarin for Chinese Speaking Students (3)
Lec-3, lab-2
P/NP available
Prereq.: CHIN 14B or demonstration of CHIN 14B exit skills

Not open to native speakers of Mandarin. Open to all students who can speak at least one Chinese dialect. Recommended for Chinese speaking students and for students who have some knowledge of Chinese. May not be offered every semester.

Continuation of extensive oral training in Mandarin. Emphasis on practical vocabulary, pronunciation and idiomatic usage. Designed for students who wish to continue acquiring skills of spoken Mandarin rather than formal grammar and literature. CSU

CHIN 16. Chinese Characters for Beginners (3)
Lec-3
P/NP available
A beginner's course, taught in English.

Open to all students with limited or no background in written characters. Recommended to be taken concurrently with CHIN 1, 1A/1B, or CHIN 12 series, or CHIN 10 series.

An intensive study of 300 commonly used characters to enhance reading and writing Chinese. CSU/UC

CHIN 16A. Chinese Characters for Beginners (1)
Lec-1
P/NP available

A continuation course of Basic Chinese Characters. Students will review 100 characters and learn another 100 new characters through common sayings, idioms and short poems. CSU

CHIN 16B. Chinese Characters for Beginners (1)
Lec-1
P/NP available
Prereq.: CHIN 16A or equivalent

A continuation course of Basic Chinese Characters. Students will review 200 characters and learn another 100 new characters through texts with different topics. CSU

CHIN 16C. Chinese Characters for Beginners (1)
Lec-1
P/NP available
Prereq.: CHIN 16A, 16B or equivalent

This is a continuation course of Basic Chinese Characters. Students will review 200 characters and learn another 100 new characters through texts with different topics. CSU

CHIN 17. Continuation of Chinese Characters for Beginners (3)
Lec-3
P/NP available
Prereq.: CHIN 16 or demonstration of CHIN 16 exit skills

A continuation course, taught in English.

Open to all students with limited or no background in written characters. Recommended to be taken concurrently with CHIN 1, 2A/B, or CHIN 12 series, or CHIN 10 series.

An intensive study of additional 300 commonly used characters to enhance reading and writing Chinese. CSU/UC

CHIN 22. Basic Chinese Composition Online (3)
Lec-3
P/NP available
Prereq.: CHIN 2/2B

On-line introduction to basic Chinese writing skills including comprehension, vocabulary, and grammar through readings and discussions of contemporary issues concerning China and Taiwan. CSU/UC
CHIN 29A-29B. Chinese Literature in Translation (3-3)
Lec-3 P/NP available
Advis: ENGL 96 or Placement in ENGL 1A
CHIN 29A is not prerequisite to 29B. No knowledge of Chinese required.
Reading and discussion of representative works in English translation.
CSU/UC

CHIN 31A-31B. Intermediate Mandarin Chinese for Bilingual Students (3-3)
Lec-3, lab-1 P/NP available
Prereq: Oral fluency in at least one Chinese dialect other than standard Mandarin and knowledge of approximately 800-1000 Chinese characters
Chinese 31A is not a prerequisite for Chinese 31B. These courses may be taken non-sequentially.
These courses are designed for bilingual students who are effective in oral communication in at least one Chinese dialect other than standard Mandarin, but need formal training in both receptive and productive skills in Mandarin.
Intensive training in written and spoken Mandarin with emphasis on reading and composition. Linguistic ability in both English and Chinese are used as a basis for increasing vocabulary and enhancing reading and writing skills through short stories, poems, essays and composition. Advanced training in written and spoken Mandarin.
CSU/UC

CHIN 39. Major Achievements of Chinese Thought and Culture (3)
Lec-3
Advis: ENGL 96 or Placement in ENGL 1A
No knowledge of Chinese required. Not open to students who are enrolled in or have completed CHIN 49.
Consideration of the humanistic traditions of China, the most recent archaeological discoveries, and their relation to those of other countries in East Asia. CSU/UC

CHIN 49. Major Achievements of Chinese Thought and Culture (3)
Lec-3 P/NP available
No knowledge of Chinese required. Not open to students who are enrolled in or have completed CHIN 39.
Consideration of the humanistic traditions of China, the most recent archaeological discoveries, and their relation to those of other countries in East Asia. CSU

Cinema

Announcement of Curricula

General Information

The Cinema Department is ideally situated in the San Francisco Bay Area, which is home to one of the country’s most vibrant film cultures and traditions. Our program is unique in the breadth of its course offerings, the quality of its instruction, and the accessibility of its equipment. As part of one of the largest, most diverse community colleges in the country, the Cinema Department is an exciting and rewarding place to study film.

The Cinema department is equipped to fulfill a wide range of professional and academic goals. Production and studies classes include, but are not limited to: cinematography and lighting, screenwriting, directing, producing, editing, sound for motion picture, feature and documentary production, film history, aesthetics and genre/auteur studies.

Students work with evolving technologies and state of the art equipment that emphasizes hands-on training and portfolio production. Film studies courses provide a historical view of film in our culture through the examination of aesthetic and technical changes in the medium. The knowledge and experience acquired in the program will prepare students to pursue their goals in the motion picture industry or transfer to an institution of higher learning.

Our dedicated faculty and staff consist of award-winning filmmaking professionals who create an environment that encourages creativity, technical proficiency, and critical thinking.

Each year students in the Cinema Department produce CITY SHORTS, a high-profile film festival. This public event provides students an opportunity to showcase their work and celebrate with the community.

Learning Outcomes

- Understand basic principles of film production and industry practice
- Analyze different film forms and genres
- Demonstrate skills in celluloid and digital technology
- Demonstrate storytelling skills
- Identify film history movements

Career Opportunities

- Production Assistant
- Grip and Lighting Technician
- Camera Operator
- Film and Video Editor
- Motion Picture Director
- Producer
- Production Manager
- Screenwriter
- Sound Recordist
- Sound Mixer
- Festival Curator

Cinema Production Major (AS)

The Associate in Science Degree in Cinema Production is intended for students who are interested in pursuing a career in film production. Students must satisfy the following program prerequisite: Completion (with a C or higher) of MMSP 120 - Computer Skills for Multimedia or BCST 119 - Digital Media Skills or demonstration of MMSP 120 or BCST 119 exit skills. In the first semester, students may enroll concurrently in the following courses: CINE 21, 24, 25, 30, 60, and 75.

Courses Required for the Major in Cinema Production

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>CINE 21 Film Studies</td>
<td>3</td>
</tr>
<tr>
<td>CINE 24 Basic Film Production</td>
<td>4</td>
</tr>
<tr>
<td>CINE 25 Narrative Filmmaking</td>
<td>3</td>
</tr>
<tr>
<td>CINE 60 Sound for Motion Pictures</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>CINE 30 Pre-Production Planning</td>
<td>3</td>
</tr>
<tr>
<td>CINE 54 Cinematography and Lighting</td>
<td>3</td>
</tr>
<tr>
<td>CINE 56 Introduction to Digital Film Editing</td>
<td>3</td>
</tr>
</tbody>
</table>
Third Semester
CINE 75 Screenwriting
or CINE 72 Non-Fiction Scriptwriting ................. 3
CINE 61 Sound for Motion Pictures II
or CINE 74 Advanced Cinematography and Lighting
or CINE 76 Advanced Digital Film Editing
or CINE 90 Film and Digital Finishing ................. 3
CINE 131 Directing Motion Pictures
or CINE 126 Documentary Filmmaking ................. 3

Fourth Semester
CINE 124A Film Production Workshop ................. 3
CINE 131 Directing Motion Pictures
or CINE 126 Documentary Filmmaking ................. 3

Total Units .................................................. 37

Announcement of Courses
Credit, Degree Applicable Courses:
CINE 18. American Cinema (3)
Lec-3, field trips P/NP available
An introductory course in film studies, bringing Hollywood filmmaking into clear focus as an art form, as an economic force, and as a system of representation and communication. Explores how Hollywood films work technically, artistically, and culturally to reinforce and challenge America's national self image. CSU/UC
Formerly FILM 18.

CINE 19. New Political Documentary and Emerging Media (3)
Lec-3 P/NP available
Examine some of the best current political documentaries and explore how emerging technologies have revolutionized documentary cinema practice. Using the films, critical writings, and original projects, students will investigate the relevance and impact of documentary filmmaking in the context of social networks, blogs, games, cell phones, and 3d virtual communities. CSU

CINE 20A. Film History: Evolution of Film Expression (3)
Lec-2, lab-2 P/NP available
Repeat: max. 6 units
History of cinema as a unique expressive medium, from 19th century origins to mid-20th century. Aesthetics of silent and sound films, relation of film techniques to content, films in social/historical context and in relation to other arts and popular culture. Screenings in class for study and analysis. CSU/UC
Formerly FILM 20A.

CINE 20B. Film History: Contemporary Film Expression (3)
Lec-2, lab-2 P/NP available
Repeat: max. 6 units
Similar approaches as in CINE 20A, emphasizing film history from the mid-20th century to the present. The post-WWII film renaissance; movements, genres and changing technologies; the expansion of filmmaking to newly represented people, places and ideas; contemporary documentary approaches; cinemas in the age of international media. CSU/UC
Formerly FILM 20B.

CINE 21. Introduction to Film Studies (3)
Lec-3, lab-2 P/NP available
Repeatable: max. 6 units
Survey of critical and academic approaches to cinema, including aesthetic (film as art), sociological (film and society), psychological (spectator and response), ideological (multicultural, feminist, gay/lesbian). Readings in film criticism and theory; in-class screenings. CSU/UC
Formerly FILM 21.

CINE 22. The Documentary Tradition (3)
Lec-3 Repeat: max. 6 units
History and analysis of non-fiction films; screenings in class considering approaches, forms and issues: objectivity and point of view, aesthetics, ethics and principles, the real and the re-enacted. Documentary films as journalism, anthropology, biography, historical restoration and personal statement. CSU/UC
Formerly FILM 22.

CINE 23. Selected Topics in Film Studies (3)
Lec-3 P/NP available
ADVISER: CINE 18 or 20A or 20B or 21
An in depth study of a significant subject area in Film History and Film Studies. Topics may include genre studies (e.g., the Western), national cinemas (e.g., Italian Neorealism), auteur studies (e.g., Hitchcock) or a specific time period (e.g., Pre-code Cinema). Screenings in class appropriate to the designated topic. CSU/UC
Formerly FILM 23.

CINE 23A. Films of Alfred Hitchcock. CSU/UC
CINE 23B. Focus on Film Noir. CSU/UC

CINE 24. Basic Film Production (4)
Lec-4, lab-3 P/NP available
Repeat: max. 6 units
Super 8mm film and digital production, including concept, principles, basic editing, projection and the use of non-synchronous sound. Evaluation and critique of student's films. Each student required to complete three films. CSU/UC
Formerly FILM 24.

CINE 25. Narrative Filmmaking (3)
Lec-3, lab-3, field trips P/NP available
Prereq.: Completion/concurrent enrollment in CINE 24
Repeat: max. 6 units
Basic motion picture editing. Discussion and demonstration of narrative and non-narrative editing techniques and aesthetics. Emphasis on shooting for the edit. Formats include 8mm and 16 mm and video. CSU
Formerly FILM 25.

CINE 30. Pre-Production Planning (3)
Lec-3, field trips Repeat: max. 6 units
Lectures on all details of planning the production of a media project. From conception to execution, this course examines the great attention to detail that every type of production needs to be completed. Students are taught the skills to calculate and negotiate all costs, legal concerns, insurance issues, permits, and pitfalls. They are then shown how they might follow through with projects such as short narratives, music videos or commercials, documentaries, CD Roms, and narrative feature films. CSU
Formerly FILM 30.
CINE 40. Film Exhibition (3)  
Lec-3, lab-3  
Repeat: max. 6 units  
An overview of the cultural and practical considerations of presenting a public film festival, with a special focus on City Shorts Student Film Festival. Experience in planning, programming, promotion, and house management. CSU  
Formerly FILM 40.

CINE 54. Cinematography and Lighting (3)  
Lec-3, lab-3, field trips  
Prereq.: CINE 24 and 25  
Repeat: max. 9 units  
Development and execution of short, single-camera styled projects focusing on the skills of cinematography and lighting: script visualization, camera operation, lighting setups, lens selection and emphasis on safety awareness. CSU  
Formerly FILM 54.

CINE 55. Advanced Film Editing (3)  
Lec-3, lab-1, field trips  
Prereq.: CINE 25, 54  
Repeat: max. 6 units  
Advanced motion picture editing. Discussion and demonstration of film and digital editing techniques from rough cut to answer print using 16mm sync and non-sync formats. CSU  
Formerly FILM 55.

CINE 56. Introduction to Digital Film Editing (3)  
Lec-3, lab-3, field trips  
Prereq.: CINE 24, 25 and MMSP 120 or BCST 119 OR Demonstration of their exit skills  
Repeat: max. 6 units  
Introduction to film editing techniques using current digital nonlinear film editing systems within the cinematic discipline. CSU  
Formerly FILM 56.

CINE 60. Sound for Motion Pictures I (3)  
Lec-3, lab-3, field trips  
Prereq.: Completion/concurrent enrollment in CINE 24 and 25  
Repeat: max. 6 units  
Films, field trips, lectures, and work projects covering all stages of creation of a motion picture soundtrack. Demonstrations of recording techniques and equipment, transferring, editing, and mixing. Sync sound location recording. Computer-based audio editing programs. CSU  
Formerly FILM 60.

CINE 61. Sound for Motion Pictures II (3)  
Lec-3, field trips  
Prereq.: CINE 60  
Repeat: max. 6 units  
Advanced work for filmmakers in sound recording, editing, design and mixing for motion pictures. Demonstrations of professional film location sound equipment, digital sound editing workstations, and film sound mixing studios. Film screenings and field trips to complement class lectures, discussions, exercises, demonstrations, group and individual work projects. CSU  
CINE 62. Nonfiction Scriptwriting (3)  
Lec-3  
Repeat: max. 6 units  
An introductory course in developing research and interviewing skills, and scripting abilities for nonfiction cinema. Emphasis on investigation techniques using different professional script writing models will be covered. The historical importance of nonfiction films and their influence on new media platforms will also be explored. CSU

CINE 74. Advanced Cinematography and Lighting (3)  
Lec-3, lab-3, field trips  
Prereq.: CINE 54  
Repeat: max. 9 units  
Advanced operations with motion picture camera, lighting and grip equipment as they apply to different film forms (narrative, documentary, experimental), genres and styles. In-class and outside class group assigned filming exercises. Film screenings and field trips to complement class lectures, demonstrations and discussions. CSU  
Formerly FILM 74.

CINE 75. Screenwriting (3)  
Lec-3, field trips  
Repeat: max. 6 units  
The purpose of this class is to learn to write screenplays. Therefore the student will study film terms and formats, work with treatment, scenario and shooting scripts, analyze film and television clips, shorts, tapes, and full-length films with emphasis on understanding the writer's perspective. Numerous writing assignments and exercises will be assigned with the intent of developing a student's ability to write for a visual medium. CSU  
Formerly FILM 75.

CINE 76. Advanced Digital Film Editing (3)  
Lec-3, lab-3, field trips  
Prereq.: CINE 24, 25, and 56 OR BCST 144  
Repeat: max. 9 units  
Advanced film editing techniques using current digital nonlinear film editing systems within the cinematic discipline. CSU  
Formerly FILM 76.

CINE 85. Advanced Screenwriting (3)  
Lec-3  
Prereq.: CINE 75  
Repeat: max. 6 units  
An advanced inquiry into the art of investigating, structuring and writing original screenplays. Mastery of researching and developing authentic characters, as well as generating solid story plot devices using professional screenplay style will be emphasized. Different film genres and story techniques will also be explored. CSU  
Formerly FILM 85.

CINE 90. Film and Digital Finishing (3)  
Lec-3, lab-3, field trips  
Prereq.: CINE 24 and 25; and completion of or concurrent enrollment in CINE 54  
Repeat: max. 9 units  
Survey of state of the art practices and technologies in celluloid and digital film finishing and laboratory work, including timing, color correction, film to tape transfer and tape to film transfer, taught through lectures, field trips, and hands-on exercises. Class meets primarily off campus at a local laboratory facility. CSU  
Formerly FILM 90.
CINE 124A. Film Production Workshop (3)
Lec-2, conf-1, lab-4, field trips
Prereq.: CINE 54, 56 and 60
Advising: CINE 30, 61, 74, 75 and 76
This is an advanced production course that refines and expands skills developed in prior CCSF Cinema classes. It is a requirement for the major. This course focuses on the planning and development of an original film idea, and on crew skills. CINE 124A meets concurrently with CINE 124B. UC/CSU
Formerly FILM 170.

CINE 124B. Film Production Workshop (3)
Lec-2, conf-1, lab-4, field trips
Prereq.: CINE 124A
Repeat: max. 6 units
Additional practical experience in two principal areas of film production, at least one of which will generate some synchronized sound; complete a self-generated film or digital video project, or working as part of a production unit, with an emphasis on professional production methodology and quality. CSU/UC
Formerly FILM 124B.

CINE 126. Documentary Filmmaking (3)
Lec-3, field trips
Prereq.: CINE 24
Repeat: max. 6 units
Basic production skills for a short 16mm or video documentary film, from writing a proposal to making a successful answer print, including the use of sync sound. Screenings of films and discussions explore the nature, limits, aesthetics, and ethics of documentary filmmaking. CSU
Formerly FILM 126.

CINE 131. Directing Motion Pictures (3)
Lec-3, field trips
Prereq.: CINE 24 and 25
Coreq.: CINE 54
Repeat: max. 6 units
Function of the film director from script to screen through development and execution of single-camera-style projects focusing on the demands of directing. Emphasis on script planning and blocking, crew management and working with actors. CSU
Formerly FILM 131.

CINE 136. Special Effects (3)
Lec-3, lab-3
Prereq.: CINE 24 and 25; and BCST 119 or MMSP 120 or CS 100M
Repeat: max. 6 units
A survey of the evolution of the motion picture special effects art, from its optical printer and animation stand origins, up to the digital techniques used in the motion picture industry today. Traditional special effects techniques such as travel matte, blue screen, rotoscope, animation and compositing are taught digitally, using Motion, After Effects, Final Cut Pro and other software. CSU
Formerly FILM 136.

CINE 170. Film/Video Work Experience (2)
Conf-1, work-10
Prereq.: Consent of CINE Work Experience Coordinator
Repeat: max. 8 units
Supervised, paid or unpaid work in the film/video industry or related projects. Jobs usually arranged by the student, subject to faculty approval. Job experiences at CCSF, e.g., issuing film equipment or projecting for film history classes, are within the scope of this learning experience. CSU
Formerly FILM 170.

CINE 175A. Film/Video Independent Study (2)
Ind st-5
Repeat: max. 4 units
Prereq.: CINE 56, 60, and 124A/B; and CINE 30, 75 or 126
Individual film/video projects or participation in group productions including personal filmmaking, scriptwriting, serving as crew on other students’ films, and similar situations, subject to faculty approval. Work progress supervised by faculty. CSU
Formerly FILM 175A.

CINE 175B. Film/Video Independent Study (2)
Ind st-5
Repeat: max. 4 units
Prereq.: CINE 56, 60, and 124A/B; and CINE 30, 75, or 126
Continuation of projects-in-progress from CINE 175A or begin new film/video projects. CSU
Formerly FILM 175B.

Classics
See English

Computer Networking and Information Technology
Office: Science 147
Phone Number: (415) 452-5323
Web Site: www.ccsf.edu/cnit

Announcement of Curricula
General Information
For students who wish to transfer to a four-year college, or who want computer training that will lead to employment, the Computer Networking and Information Technology Department offers certificate programs. Areas of study include computer technical support, networking, and security.

Learning Outcomes
Students who complete vocational and occupational department certificates demonstrate technical and professional competencies that meet industry standards for employment, and are prepared for industry-recognized external certification exams.

Transfer to Other Colleges and Universities. Students who complete the two-year Associate in Science degree program may choose to continue their education and earn a Bachelor’s degree. City College of San Francisco has transfer agreements with many of the California State University and University of California campuses.

Students who are interested in transferring after completion of the two-year degree program should consult the “Transfer Information” section of this catalog and discuss their plans with their program advisor or counselor.

Computer Networking and Information Technology Major (AS)
Students graduating with an Associate in Science degree at City College of San Francisco with a Major in Computer Networking and Information Technology (CNIT) may seek employment in entry-level network administration, computer technical support, and web
development positions. After completion of the required General Education areas and 21 units of CNIT courses with a grade of C or better, a student could qualify for an A.S. degree with a Major in Computer Networking and Information Technology. The Major consists of completion of the Core Courses and 9-11 units of required courses from one of the option areas listed below.

**Courses Required for the Major in Computer Networking and Information Technology**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 103 Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 106 Introduction to Networks or CNIT 201E Networking Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 131 Internet Basics and Beginning HTML</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 120 Network Security</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option in Computer Technical Support**

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 104 Operating Systems Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 105 Computer Technical Support</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 345 Windows 7 Tech Support</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 103L Computer Hardware Lab or CNIT 104L Operating Systems Tech Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units** | 22

**Option in Internet and Web Development Techniques**

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 132 Intermediate HTML and XHTML</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 133 Interactive Web Pages, Java Script, and AJAX</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 134 Server Side Technologies: ASP .NET</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** | 21

**Option in Network Security**

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 121 Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 122 Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 123 Ethical Hacking &amp; Network Defense</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** | 21

**Option in Wireless Networks**

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 107 Wireless LANs</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 113 Tech. of Smartphones &amp; Mobile Devices</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 108 Wireless Networks Advanced or CNIT 212 Cisco Wireless</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** | 22

**Option in Cisco Networking**

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 202E Routing Protocols &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 203E LAN Switching and Wireless</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 204E Accessing the WAN</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** | 21

**Option in Microsoft Windows**

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 342 Windows Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 343 Windows Server Network Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 345 Windows 7 Tech Support or CNIT 351 SQL Server Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** | 21

**Certificate Curricula**

The certificate programs are designed to meet the needs of students who want 1) to obtain entry-level employment, 2) to advance in their current positions, or 3) to change careers. Certificate programs enable students to demonstrate specialization in areas such as computer technical support, networking, security, and web site development techniques.

**Requirements for the Certificate of Accomplishment or Achievement**

A student may obtain the Certificate of Accomplishment or Achievement by completing each of the courses offered in the certificate programs as listed below with a grade of C or better.

**Several certificate programs are available.** Each program prepares a student for a different career path. Additional information is available from the Department Chairperson.

**Computer Technical Support Certificate**

This program provides instruction in the support of a typical workplace computer environment including hardware, operating systems, and application programs. Students in this program practice diagnostic troubleshooting, technical and logical problem solving, end-user training, and customer relations skills.

**Courses Required for the Certificate of Achievement in Computer Technical Support**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 100 Intro to Computers Using PCs</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 101 Operating Systems I - Windows</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 102 Operating Systems II - Command Line</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 103 Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 104 Operating Systems Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 105 Computer Technical Support</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 106 Intro to Networks</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 197 Internship and Work Experience or CNIT 103L Computer Tech Support Lab or CNIT 104L Operating Systems Tech Lab or CNIT 105L Computer Tech Support Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units** | 22

**Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 30 Internet Safety</td>
<td>1</td>
</tr>
<tr>
<td>CNIT 40 Windows Security Basics</td>
<td>1</td>
</tr>
<tr>
<td>CNIT 70 WiFi Basics</td>
<td>1</td>
</tr>
</tbody>
</table>

**Computer Technician Certificate**

This program of study includes instruction and practice in the identification, installation, and configuration of hardware devices to build, maintain, upgrade, and improve performance of a computer system. This course prepares students for CompTIA's A+ exam, a certification equivalent to six months’ work experience as a computer technician.

**Courses Required for the Certificate of Accomplishment in Computer Technician**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 101 Operating Systems I - Windows</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 102 Operating Systems II - Command Line</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 103 Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 103L Computer Hardware Lab</td>
<td>1</td>
</tr>
<tr>
<td>CNIT 104 Operating Systems Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 104L Operating Systems Tech Lab or CNIT 105L Computer Tech Support Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units** | 14
Fundamentals of Networking Certificate
The program of study for the Fundamentals of Networking Certificate provides a solid core of the concepts and terminology, an introduction and overview of all aspects of computer networking, including components and principles of local and wide area networking and the Internet. Students who complete this certificate will be ready to undertake further study and advance to more specific industry training.

Courses Required for the Certificate of Accomplishment in Fundamentals of Networking

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 103 Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 104 Operating Systems Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 106 Introduction to Networks or CNIT 201E Network Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 131 Internet Basics and Beginning HTML</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 190 Internet Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 342 Windows Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 343 Windows Server Network Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Network Security Certificate
This program provides instruction in the measures that must be taken to detect and prevent network security mistakes and vulnerabilities, and includes descriptions of common attacks and methods to configure the operating system, servers, routers, firewalls, and email. Preparation for the CompTIA Security+ exam.

Courses Required for the Certificate of Accomplishment in Network Security

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 106 Introduction to Networks or CNIT 201E Network Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 120 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 122 Firewalls</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 123 Ethical Hacking</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 124 Advanced Ethical Hacking or CNIT 121 Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 125 Information Security Prof Practices</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Routing and Switching (Cisco) Certificate
The program of study for the Certificate in Routing & Switching (Cisco) includes instruction and practice in the theory, design, configuration, and operation of simple Local and Wide Area Networks. This course of study prepares students for entry-level positions in network administration and for the Cisco Certified Network Associate (CCNA).

Courses Required for the Certificate of Achievement in Routing and Switching (Cisco)

<table>
<thead>
<tr>
<th>Course/Routers track</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 103 Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 201E Network Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 202E Routing Protocols and Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 203E LAN Switching and Wireless</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 204E Accessing the WAN</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 120 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 342 Windows Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>21</td>
</tr>
</tbody>
</table>

LAMP Fundamentals Certificate*
*See Computer Science section of the Catalog

LAMP Administration Certificate*
*See Computer Science section of the Catalog

Home Technology Integration Certificate
The program of study for the Certificate of Accomplishment in Home Technology Integration prepares students for entry-level computer technical support positions.

Courses Required for the Certificate of Accomplishment in Digital Home Technology Integration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 103 Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 104 Operating System Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 105 Computer Technical Support or CNIT 345 Windows 7 Tech Support</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 106 Introduction to Networks or CNIT 201E Networking Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 150 Digital Home Technology Integration</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

E-Commerce Systems Development Certificate
The program of study for the Certificate of Accomplishment in E-Commerce Systems Development provides instruction in the fundamental concepts and technical skills needed to design, develop, and support a commercial Internet website and database. Teams of students in this program plan, design, develop and test a working practical project in the workplace or on campus.

Courses Required for the Certificate of Accomplishment in E-Commerce Systems Development

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 120 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 131 Internet Basics and Beginning HTML</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 190 Internet Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 342 Windows Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 343 Windows Server Network Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Students will learn the fundamentals of problem-solving technical support issues related to end-user computer applications, hardware and operating systems. This course of study prepares students for entry-level computer technical support positions.

Courses Required for the Certificate of Accomplishment in Fundamentals of Technical Support

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 100 Intro to Computers Using PCs</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 103 Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 104 Operating Systems Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 105 Computer Technical Support or CNIT 345 Windows 7 Tech Support</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 197 Work Experience</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>13</td>
</tr>
</tbody>
</table>

Fundamentals of Technical Support
The program of study for the Certificate in Fundamentals of Technical Support gives students an introduction to technical support skills.
## Web Site Development Techniques Certificate

The program of study for the Certificate of Accomplishment in Web Site Development Techniques includes instruction and practice in the configuration and operation of web sites. This course of study prepares students for entry-level positions in web site administration.

**Courses Required for the Certificate of Accomplishment in Web Site Development Techniques**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 131 Internet Basics and Beginning HTML</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 132 Intermediate HTML and XHTML</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 133 Interactive Web Pages: JavaScript &amp; AJAX</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 134 Server-side Tech: XML &amp; ASP.NET</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 131A XML-Extensible Markup Language or CNIT 129 Web 2.0 Internet Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

---

## Windows Networking Certificate

The program of study for the Certificate of Accomplishment in Windows Networking includes instruction and practice in the theory, design, configuration, and operation of local and wide area networks using Microsoft Windows servers. This course of study prepares students for entry-level positions in network management and technical support of Windows networks.

**Courses Required for the Certificate of Accomplishment in Windows Networking**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 106 Local Area Networks or CNIT 201E Networking Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 342 Windows Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 343 Windows Server Network Infrastructure or CNIT 351 SQL Server Administration</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 345 Windows 7 Technical Support</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

---

## Wireless Networking Certificate

The program of study for the Certificate of Accomplishment in Wireless Networking includes description, installation, and configuration of network devices for wireless communication, and focuses on issues of performance and security. Completion of the certificate prepares students to take the Certified Wireless Network Administrator (CWNA) and the Certified Wireless Security Professional (CWSP) exams.

**Courses Required for the Certificate of Accomplishment in Wireless Networking**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 106 Introduction to Networks or CNIT 201E Networking Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 120 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 107 Wireless LANs</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 113 Tech. of Smartphones &amp; Mobile Devices</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

---

## Announcement of Courses

### Credit, Degree Applicable Courses:

**CNIT 10. Careers in Computer Networking & Information Technology (1)**

Lec-1, lab-1, field trips P/NP available

Introduction to new technologies and employment opportunities in computer networking and information technology. Guest speakers currently working in the field describe the goals, working conditions, pay levels, and training required to succeed in the field today. Students perform hands-on projects with new technologies and techniques. CSU

**CNIT 30. Internet Safety (1)**

Lec-1, lab-1 P/NP available

For all people who are users of the World Wide Web and e-mail to learn the best practices to follow to avoid common malicious invasions over the Internet. The course includes an overview of security dangers, a review of simple procedures that can be adopted by all users, and descriptions and demonstrations of protective software utilities. CSU

**CNIT 60. Introduction to Internet Protocol Version 6 (1)**

Lec-1, lab-1 P/NP available

PREREQ.: CNIT 106 or 201E or Demonstration of IPv4 Networking Knowledge


**CNIT 70. WiFi Basics (1)**

Lec-1, lab-1 P/NP available

Understand wireless networking for homes and small offices. An overview of important topics, uncluding non-technical explanations, a review of currently available equipment, and system installation. A major emphasis on basic measures to protect the data and secure the system. CSU

**CNIT 80X. Communications Convergence Workshops (1)**

Lec-1, lab-1 P/NP available

Repeat: max. 3 units

Introduction of at least six communications technologies with emphasis on their contribution to the convergence of voice, data and video transmission. Technologies introduced may include among others: Fiber Optic, Wi-Fi, Voice over IP, IPTV, Routing fundamentals, Wide Area Ethernet. CSU

**CNIT 100. Introduction to Computers Using PCs (3)**

Lec-3, lab-3

A computer literacy course using IBM-compatible computers. Prepares students to use computers to write papers, organize information, and use e-mail. Overview of computer components, hardware and software. Fundamentals of the Windows and other operating systems and applications such as word processing, spreadsheets, database, and e-mail and the Internet. Students use computers to complete their class assignments. CSU/UC

CSCI 2

Formerly CIS 100P.

**CNIT 101. Operating Systems I - Windows (3)**

Lec-3, lab-3

Advising: CNIT 100

Repeat: max. 6 units

A technical course about the Microsoft Windows operating system for students who have some computer experience. Learn techniques to manage a personal computer through the use of operating system utilities and commands. Practice setting up and customizing the interface and managing programs and data. Manage the computer system hardware. Compare several graphical user interfaces and command line interfaces. CSU

Formerly CNIT 111 or 165.
CNIT 102. Operating Systems II - Command Line (3)
Lec-3, lab-3
Advise: CNIT 101
An advanced course covering the use of the MS-DOS command line interface. This course is especially for students planning to earn a certificate in Windows Hardware, or for advanced Windows users. Use of DOS commands and utilities. A detailed examination of batch files, CONFIG.SYS, AUTOEXEC.BAT, redirection and piping. Use of the DOS editor. CSU
Formerly CNIT 112 or 164 or CIS 164.

CNIT 102W. World Wide Web (1)
Lec-1, lab-1 P/NP available
Introduction to the World Wide Web Internet service. Use of browsers and search tools. Create home pages. Use web browsers to access other Internet services such as email, ftp, newsgroups and telnet. CSU
Formerly CIS 102W.

CNIT 103. Computer Hardware (3)
Lec-3, lab-3 P/NP available
Advise: CNIT 100 or 101 or 102
This course provides the knowledge and skills needed to install hardware, configure, repair, and maintain a computer system in a typical office environment. Topics include hardware components and peripherals, assembly, upgrading, and basic troubleshooting methodology. CSU
Formerly CIS 104.

CNIT 103L. Computer Hardware Lab (1)
Lab-3 P/NP available
Prereq.: CNIT 103
A project-oriented hands-on introduction to hardware identification, maintenance, upgrade, diagnosis, and troubleshooting. Designed to provide practice with concepts, techniques and procedures covered in CNIT 103. Teamwork will be emphasized. CSU

CNIT 104. Operating Systems Technologies (3)
Lec-3, lab-2
Prereq.: CNIT 103
This course provides the knowledge and skills to select and install system software, and to diagnose and troubleshoot system problems due to software configuration. Covers all aspects of the operating system, configuration files, drivers, and resource allocation. Topics include computer architecture and the interaction of hardware and software, documentation, command line operations, use of utilities for diagnostics and for configuration, and editing the Registry. CSU
Formerly CIS 104A.

CNIT 104L. Operating Systems Technologies Lab (1)
Lab-3 P/NP available
Prereq.: CNIT 104
A project-oriented hands-on introduction to the technical requirements of computer software: installation, configuration, modification, and troubleshooting. Designed to provide hands-on familiarity and practice with concepts, techniques and procedures covered in CNIT 104. Troubleshooting and teamwork will be emphasized. CSU

CNIT 105. Computer Technical Support (3)
Lec-3, lab-3 P/NP available
Advise: CNIT 106 or 101 or 102
An overview of the concepts and procedures associated with operating a technical support center or help desk call center, with particular emphasis on technologies that can facilitate the work and generate statistics. Additionally, the course will include extensive simulated and hands-on experience, role-playing, and problem solving to practice good customer service and communications skills. CSU
Formerly CIS 105.

CNIT 105L. Computer Technical Support Lab (1)
Lab-3
Advise: CNIT 105
Introduction to hardware diagnosis and troubleshooting, and software maintenance, upgrading, and problem-solving; including the opportunity to work with real Help Desk software to log calls, and, at times, real end-user problems; and to work with a variety of real hardware problems in a simulated Service Center. Designed to provide hands-on practice with hardware and software, techniques and procedures covered in CNIT 105. Teamwork will be emphasized. CSU

CNIT 106. Introduction to Networks (3)
Lec-3, lab-2 P/NP available
Advise: CNIT 100 or 101
An analysis of technologies for connecting computers and computer related devices into networks. This course covers the terminology and the major components of networks: architecture, topologies, hardware components, connections, protocols, network operations, network administration, support, and troubleshooting. Wide Area Networks (WANs) are also covered. Follows the objectives of the CompTIA Net+ certification exam. CSU
Formerly CIS 131.

CNIT 106C. Introduction to Network Convergence (3)
Lec-3, lab-3 P/NP available
Advise: CNIT 100
Overview of technologies used to deliver combined telephone, LAN, WAN, wireless, voice, video, and internet protocol including interoperability methods and techniques to integrate disparate systems and technologies. Integrated data (VVID) over IP networks providing seamless and secure communications solutions for business and home. Aligned with Comp TIA convergence +certification exam. CSU

CNIT 107. Wireless LANs (3)
Lec-3 P/NP available
Advise: CNIT 106 or 106C or 201E or 340
Knowledge and skills needed to select, install and configure wireless networks, including: fundamentals and standards of wireless communication, installation of network access point, and installation, configuration and management of typical products. Also included: common applications, monitoring the network, security, troubleshooting, upgrade and modification. Students in this course should be familiar with LAN Technologies. CSU

CNIT 108. Wireless Networks, Advanced (3)
Prereq.: CNIT 107
Knowledge and skills to design, install, configure, manage, and maintain wireless networks, including: advanced fundamentals of wireless communication, current and developing standards and protocols, boosting signal strength, detecting and extending signals, troubleshooting common problems, monitoring the network, security issues, and research and analysis of proposed and developing security solutions. Follows the objectives for the Certified Wireless Network Administrator (CWNA) Examination. CSU
CNIT 109. Wireless Security (3)
Lec-3, lab-3  P/NP available
Prereq.: CNIT 106 or 120 or 107 or 108
Provides knowledge, skills, and procedures to address the wireless
attacks on a computer network, to identify and eliminate known vul-
nerabilities in wireless networks, and to implement solutions to protect
data and to keep the systems running. Known and common attacks
on wireless systems are examined and discussed, and levels of security
and developing standards are examined. Follows the objectives of the
Certified Wireless Security Professional (CWSP) industry certification.
CSU

CNIT 113. Technology of Smartphones and Mobile Devices (3)
Lec-3, lab-3  P/NP available
Advise: CNIT 100
Overview of mobile device technologies with an emphasis on
smartphones. This course will introduce the technologies behind
smartphones including the cellular networks, operating systems,
browsers, hardware, and security. Topics include device selection,
international network considerations, security, malware, and data
back-up.

CNIT 120. Network Security (3)
Lec-3
Advise: CNIT 106 or 106C or 201E
Knowledge and skills required for Network Administrators and
Information Technology professionals to be aware of security vul-
nabilities, to implement security measures, to analyze an existing
network environment in consideration of known security threats or
risks, to defend against attacks or viruses, and to ensure data privacy
and integrity. Terminology and procedures for implementation and
configuration of security, including access control, authorization,
encryption, packet filters, firewalls, and Virtual Private Networks
(VPNs). CSU

CNIT 121. Computer Forensics (3)
Lec-3, lab-3  P/NP available
Prereq.: CNIT 120
The class covers forensics tools, methods, and procedures used for
investigation of computers, techniques of data recovery and evidence
collection, protection of evidence, expert witness skills, and computer
crime investigation techniques. Includes analysis of various file systems
and specialized diagnostic software used to retrieve data. Prepares for
part of the industry standard certification exam, Security+, and also
maps to the Computer Investigation Specialists exam. CSU

CNIT 122. Firewalls (3)
Lec-3, lab-3  P/NP available
Prereq.: CNIT 106 or 120
Fundamentals, techniques, and procedures to design an effective
secure Internet connection using software or hardware firewalls.
Discussion of types of firewalls, packet filtering, proxy servers,
Intrusion Detection Systems, and Virtual Private Networks (VPNs). CSU

CNIT 123. Ethical Hacking and Network Defense (3)
Lec-3, lab-3  P/NP available
Advise: CNIT 106 or 120
Learn how hackers attack computers and networks, and how to protect
Windows and Linux systems. Legal restrictions and ethical guidelines
will be taught and enforced. Students will perform many hands-on
labs, both attacking and defending, using port scans, footprinting,
buffer overflow exploits, SQL injection, privilege escalation, Trojans,
and backdoors. CSU

CNIT 124. Advanced Ethical Hacking (3)
Lec-3, lab-3  P/NP available
Prereq.: CNIT 123
Advanced techniques of defeating computer security, and counter-
measures to protect Windows and Unix/Linux systems. Hands-on
labs include Google hacking, automated footprinting, sophisticated
ping and port scans, privilege escalation, attacks against telephone and
Voice over Internet Protocol (VoIP) systems, routers, firewalls, wireless
devices, Web servers, and Denial of Service attacks. CSU

CNIT 125. Information Security Professional Practices (3)
Lec-3, lab-3  P/NP available
Advise: CNIT 123
Covers information security in depth, including access control,
application security, enterprise continuity, cryptography, technical
risk management, physical security, and telecommunications and
network security. This class helps to prepare students for the Certified
Information Systems Security Professional (CISSP) credential, which is
essential for high-level information security professionals.

CNIT 129. Web 2.0 Internet Technologies (3)
Lec-3, lab-3  P/NP available
Advise: CNIT 100
Overview of Web 2.0 Internet technologies. Techniques for contribut-
ing and sharing documents, photos, videos and other data using blogs,
wikis, social networking, video and photo sharing websites, and other
tools. CSU

CNIT 131. Internet Basics and Beginning HTML (3)
Lec-3, lab-3  P/NP available
Repeat: max. 9 units
Methods of using the Internet. History, design and protocol methods
used on Internet including: electronic mail, mailing lists, Usenet, con-
nection to remote computers, file transfer, World Wide Web, basic
web page creation and publishing. Additional topics include: file com-
pression and expansion, computer security, copyright and electronic
commerce, and basic Unix shell commands. CSU
Formerly CNIT 135A or CIS 135A.

CNIT 131A. XML-Extensible Markup Language (3)
Lec-3, lab-3  P/NP available
Advise: CNIT 131
Introduction to eXtensible Markup Language (XML) and document
structuring. Hands-on experience with XML documents, Document
Type Definition (DTD), namespaces, schemas, data parsing with
Document Object Model (DOM) and data presentation with exten-
sible Style Language (XSLT), XPath and Cascading Style Sheets (CSS).
CSU

CNIT 132. Intermediate HTML and XHTML (3)
Lec-3, lab-3  P/NP available
Advise: CNIT 131
Repeat: max. 9 units
Use of HTML to publish information on the World Wide Web, includ-
ing the use of color, images, tables, and frames. Cascading Style
Sheets are used to standardize the appearance of information within
a page and across pages in a site. Introduction to scripting languages,
Dynamic HTML, forms and CGI. Introduction to secure data transfer.
Discussion of privacy, copyright, and accessibility issues. CSU
Formerly CNIT 135B or CIS 135B.
CNIT 133. Interactive Web Pages - JavaScript and AJAX (3)
Lec-3, lab-3 P/NP available

ADVISE: CNIT 132

CSU
Formerly CNIT 135C.

CNIT 134. Server Side Technologies: XML and ASP.NET (3)
Lec-3, lab-3 P/NP available
Prereq.: CNIT 133 or CS 110A or 111A or 112A or 113A or 183B
Creation of original server-side scripts using a variety of techniques such as: (i) Extensible Markup Language (SML) and its subsets: Extensible Style Language Transformation (XSLT), XML Schemas and Web Services and (ii) ASP.NET server controls and its data access with ADO.NET. CSU

CNIT 135. E-Commerce Web Site Development (3)
Lec-3, lab-3 P/NP available
Prereq.: CNIT 134
Provides knowledge, skills and practice to develop and implement an interactive e-commerce web site using Microsoft ASP.NET and Visual Studio.NET. Manage databases to edit, update, and retrieve information. Display a simple product catalog, implement a shopping cart and checkout process, as well as secure transactions with authentication and authorization. A team project will be assigned, where students will design and build a working site integrating the topics covered in the class. Based on material covered in CNIT 134. CSU

CNIT 150. Digital Home Technology Integration (3)
Lec-3, lab-3 P/NP available
ADVISE: CNIT 103
Basics of home networking, audio and video installation for professionals. Includes telephone and VoIP, security and surveillance systems, home control management and troubleshooting. Prepares for the CompTIA DHTI+ Certification. CSU

CNIT 190. Internet Systems Analysis and Design (3)
Lec-3
Prereq.: CNIT 106
Study of concepts, terminology, and methods to analyze, design, implement and improve Internet-based enterprises. Techniques to analyze requirements and plan a project appropriately and implement an integrated solution. Case studies are reviewed as examples, and real-world team projects and presentations are assigned. CSU

CNIT 197. Internship and Work Experience (1)
Conf-2, work-5
Prereq.: CNIT 132 or 104 and 106 or 201 or 241 and approval of CNIT Work Experience Coordinator
Repeat: max. 3 units
Work experience in supervised on- or off-campus work involving the use of computers. Internship programs are joint ventures between institutions or companies in the Bay area and the Computer Networking and Information Technology Department. Students must be employed in any area including, but not limited to, help desk, hardware technician, networking technician, system administration, Internet or computer operation. CSU

CNIT 198. Internship and Work Experience (2)
Conf-2, work-10
Prereq.: CNIT 132 or 104 and 106 or 201 or 241 and approval of CNIT Work Experience Coordinator
Repeat: max. 6 units
Work experience in supervised on- or off-campus work involving the use of computers. Internship programs are joint ventures between institutions or companies in the Bay area and the Computer Networking and Information Technology Department. Students must be employed in any area including, but not limited to, help desk, hardware technician, networking technician, system administration, Internet or computer operation. CSU

CNIT 199. Independent Study (1-3)
Ind-5, 10, 15
Prereq.: CNIT 104 or 202 or 132 or 241
Repeat: max. 9 units
Large-scale individual projects in Computer Networking and Information Technology to be defined in cooperation with an instructor-supervisor. The project must be in an area not covered by other course offerings. CSU

CNIT 201E. Network Fundamentals (3)
Lec-2, lab-3, conf-1 P/NP available
ADVISE: CNIT 100
Architecture, structure, functions, components, and models of the Internet and other computer networks. Use of the OSI and TCP layered models to examine protocols and services. IP addressing and subnetting. Fundamentals of Ethernet concepts, media, and operations. First course of the Cisco Networking Academy Exploration series preparing for the CCNA Certification. CSU

CNIT 202E. Routing Protocols and Concepts (3)
Lec-2, lab-3, conf-1 P/NP available
Prereq.: CNIT 201E
Architecture, components, and operation of routers, and principles of routing and routing protocols. Analysis, configuration, verification, and troubleshooting of the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. CSU

CNIT 203E. LAN Switching and Wireless (3)
Lec-2, lab-3, conf-1 P/NP available
Prereq.: CNIT 201E
LAN switch operation and implementation for small and large networks. Analysis, configuration, verification and troubleshooting of VLANs, Rapid Spanning Tree Protocol (RSTP), VLAN thinking Protocol (VTP), Inter-VLAN routing and wireless network operations. Introduction of campus network design and Layer 3 switching concepts. CSU

CNIT 204E. Accessing the WAN (3)
Lec-2, conf-1, lab-3 P/NP available
Prereq.: CNIT 202E and 203E
Wide Area Network (WAN) converged applications and quality of service (QoS). WAN technologies including PPP, Frame Relay, and broadband links. WAN security, including types of threats, how to analyze network vulnerabilities, general methods for mitigating common security threats and types of security appliances and applications. Principles of traffic control and access control lists (ACLs). IP addressing services implementation, including NAT, DHCP and IPv6. CSU
CNIT 205P. Building Scalable Internetworks (3)
Lec-2, conf-1, lab-3 P/NP available
Prereq.: CNIT 204E "ACCESSING THE WAN" OR CCNA Certification
Install, configure, monitor, and troubleshoot network infrastructure equipment according to the Campus Infrastructure module in the Enterprise Composite Network model. Topics include how to configure EIGRP, OSPF, IS-IS, and BGP routing protocols and updates between these. Also multicast routing, IPv6, and DHCP configuration. Prepares for CCNP Exam 642-901. CSU

CNIT 207P. Building Cisco Multilayer Switched Networks (3)
Lec-2, lab-3, conf.-1 P/NP available
Prereq.: CNIT 204E OR CCNA CERTIFICATION OR DEMONSTRATION OF EXIT SKILLS OF CNIT 204E
Advanced skills required to install, configure, monitor, and troubleshoot enterprise-class switched networks, including wireless LANs, basic Quality of Service to support voice, high-availability features, and enhanced security for switches. Aligns with the Building Cisco Multilayer Switched Network (BCMNSN) 642-812 exam

CNIT 209. Operating Juniper Routers in the Enterprise (3)
Lec-2, lab-3, conf.-1 P/NP available
Prereq.: CNIT 204E OR DEMONSTRATION OF CNIT 204E EXIT SKILLS
Preparation for Juniper Networks Certified Internet Associate certification (JNCIA-ER, Exam JNO-342). JUNOS configuration via Command line and J-Web Interfaces. JUNOS routing policy application for Internal Gateway Routing Protocols, Packet Filtering and Router management. CSU

CNIT 209J. Junos Software and Routing (3)
Lec-3, lab-3
Prereq.: CNIT 106 or 201E or DEMONSTRATION OF KNOWLEDGE OF BASIC NETWORKING, THE OPEN SYSTEMS INTERCONNECTION (OSI) REFERENCE MODEL, AND THE TCP/IP PROTOCOL SUITE

CNIT 210. Advanced Juniper Networks Routing in the Enterprise (3)
Lec-2, lab-3, conf-1 P/NP available
Prereq.: CNIT 209
Preparation for Juniper Networks Certified Internet Specialist (JNCIS-ER, Exam JNO-350). JUNOS policy, BCP for enterprises, IGP conversion, Layer 2 services, Layer 3 services overview, stateful firewall and NAT/PAT, IPsec VPNs, class of service, branch office connectivity, router management. CSU

CNIT 211. Fiber Optic Technology (3)
Lec-3, lab-3
Prereq.: ET 108A /BETC 108A/CDEV 108A OR MATH 40, OR DEMONSTRATION OF ET 108A OR MATH 40 EXIT SKILLS
 Covers fundamental principles and hands-on application of modern fiber optic technology; preparing students to use current technology and giving them the basis required to adapt to future developments. Topics include telecommunications, optics, fiber fabrication, splicing, and termination, lasers, LEDs, detectors and optical amplifiers, optical protocols including FDDI and SONET, and network design and troubleshooting. Students will perform many hands-on labs using fiber optic cable and related equipment. CSU

CNIT 211=ELEC 211

CNIT 212. Cisco Wireless (3)
Lec-3, lab-3 P/NP available
Prereq.: CNIT 107 OR 108
Fundamentals, techniques, and procedures to design an effective Wireless Wide Area Network for a large-scale enterprise, to perform a site survey; and to select, install, configure, and modify the devices and settings to maximize performance while maintaining security. Wireless bridges, repeaters, and antennas will be installed, and wireless Virtual Local Area Networks (VLANs) will be configured to provide the best security for the network. CSU

CNIT 215. Voice Over IP Fundamentals (VoIP) (3)
Lec-2, conf-1, lab-3 P/NP available
Prereq.: CCNA Certification
This course will cover the fundamentals of Voice over IP technologies (VoIP), as well as the convergence of voice and data networks. Configuration of Cisco Call Manager Express (CCME) architecture, router and switch hardware components needed for deploying VoIP, and the integration of the public switched telephone network into a VoIP system will be covered in a lecture and hands-on lab setting. CSU

CNIT 221. Cisco PIX Firewall and Router Security (3)
Lec-2, conf-1, lab-3
Prereq.: CCNA Certification
This course focuses on the overall security processes with particular emphasis on: hands on skills with Cisco PIX firewall; secure router design, installation, configuration; Authentication, Authorization, and Accounting (AAA) implementation using routers and firewalls; Intrusion Detection (IDS) implementation using routers and firewalls; and VPN implementation using routers and firewalls. CSU

CNIT 270. Unix/Linux Network Services (3)
Lec-3, lab-3 P/NP available
Prereq.: CNIT 106 OR 201 OR 240; AND COMPLETION OF OR CONCURRENT ENROLLMENT IN CS 260A
Configuring and maintaining Unix/Linux networks and network services, including network design, adding hosts, configuring network services such as DNS, NFS, NIS, e-mail and network printing, performing software and kernel updates, routing, routing protocols, and troubleshooting. CSU

CNIT 271. Apache Web Server Introduction (1)
Lec-1, lab-1 P/NP available
Prereq.: CS 160A and CNIT 106
Introduction to setting up and configuring the Apache Web Server. The course covers how to download and install Apache, configure CGI scripting to run scripts on the server, protect document directories with authentication, and using virtual hosting to support multiple hostnames on the same server. CSU

CNIT 272. Apache Web Server Advanced (2)
Lec-2, lab-2 P/NP available
Prereq.: CNIT 131, 270, AND 271
Advanced class on administering the Apache Web Server. Setting up complex virtual hosting, multiple types of authentication and dynamic content, adding modules to support LAMP, optimizing server performance, web server security, including SSL, and troubleshooting. CSU
1. Computer Science. The Computer Science option prepares students for transfer to four-year colleges for further study in Computer Science, as well as related areas such as Computer Engineering and Information Science. Students also gain foundational knowledge that will assist them in entry-level employment as computer programmers and analysts.

2. Computer and Information Science. The Computer and Information Science option prepares students for transfer to four-year colleges for further study in areas such as Information Science and Information Technology. Those who want to prepare themselves for a career in other fields requiring computer theory and practice will also benefit from this course of study.

**Admission.** Enrollment is recommended only to students who have completed one year of high school algebra with a final grade of C or higher and one year of high school geometry with a final grade of C or higher, or equivalent.

**Course of Study.** The curriculum includes instruction in the fundamentals of computer use, problem solving, systems analysis, programming in languages (such as C++, Visual Basic, and Java), computer operations, Unix/Linux administration, databases (such as Oracle), and systems tools. Additional requirements may include the fundamentals of accounting, quantitative methods and communication skills.

**Transfer to Other Colleges and Universities.** Students who complete the two-year Associate in Science degree program are encouraged to continue their education and earn the Bachelor's degree. City College of San Francisco has transfer agreements with many of the California State Universities and University of California campuses. Students who are interested in transferring after completion of the two-year degree program should consult the "Transfer Information" section of this catalog and discuss their plans with their program advisor or counselor. Students should pay particular attention to which programming series they take (CS 110A-B-C or CS 111A-B-C), as different four-year schools may take one or the other track. The web site www.assist.org can provide additional information about applicable courses for transfer.

**Computer Science Major (AS)**

The Major in Computer Science prepares students for transfer to a four-year college. These courses are applicable to students wishing to pursue a degree in computer Science. Students wishing to major in related fields (Computer Engineering, Information Science, etc.) should consult with the Computer Science department degree advisor. Students should consider transfer applicability to their desired 4-year college when choosing whether to take the programming sequence in C++ or Java.

**Courses Required for the Major in Computer Science**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 110A Intro to Programming (C++/Java)</td>
<td>3</td>
</tr>
<tr>
<td>CS 110B Intro to Programming (C++/Java)</td>
<td>3</td>
</tr>
<tr>
<td>CS 110C Intro to Programming (C++/Java)</td>
<td>3</td>
</tr>
<tr>
<td>CS 270 Computer Arch with Assembly Language</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110A Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110B Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 115 Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>PHYC 4A Physics for Scientists and Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHYC 4AL Physics Lab for Scientists &amp; Engrs</td>
<td>1</td>
</tr>
</tbody>
</table>

---

**Announcement of Curricula**

**General Information**

The Computer Science Department offers courses in computer programming, databases, Unix/Linux administration and programming, and multimedia. We have transfer and degree programs, as well as certificate programs. Our courses range from entry-level to professional development.

Courses and programs offered by the Computer Science Department change frequently. For the latest information about our courses, please consult the department web site at www.ccsf.edu/cs

**Degree Curricula**

Graduates of the two-year program in Computer Science will have the skills in computer programming required for transfer to a four-year college or for employment as programming assistants, maintenance programmers, and other entry level or trainee positions. Upon successful completion of the curriculum, students receive the Associate in Science (AS) degree.

**Options.** Students may choose from two options for their course of study toward a degree.

**Computer Science**

Office: Batmale 456
Phone Number: (415) 239-3655
Web Site: www.ccsf.edu/cs
The program of study for the certificate in Computer Programming: C++ includes instruction and practice in the C++ programming language, as well as computer systems and the principles of automatic business data processing. This course of study prepares students for entry-level positions in quality assurance and computer programming in a variety of settings.

Courses Required for the Certificate of Achievement in Computer Programming: C++

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 160A Introduction to Unix/Linux</td>
<td>2</td>
</tr>
<tr>
<td>or CS 100 Introduction to Computer Science</td>
<td></td>
</tr>
<tr>
<td>or CS 101 Introduction to Information Systems</td>
<td></td>
</tr>
<tr>
<td>or CS 176 Systems Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>or CS 177 Software Engineering</td>
<td></td>
</tr>
<tr>
<td>or CS 270 Comp. Arch. w/ Assembly Lang</td>
<td>3</td>
</tr>
<tr>
<td>CS 110A Intro to Programming: C++</td>
<td>3</td>
</tr>
<tr>
<td>CS 110B Programming Fundamentals: C++</td>
<td>3</td>
</tr>
<tr>
<td>CS 110C Data Structures &amp; Algorithms: C++</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units ........................................ 16-17

Students must receive a grade of C or higher in all courses. Where available, grades of "Pass" may also be used.

Computer Programming: Java Certificate

The program of study for the certificate in Computer Programming: Java includes instruction and practice in the programming language Java, as well as use of an operating system and database queries. This course of study prepares students for entry-level positions in computer programming and related fields. Additionally the course of study prepares students for the industry exam in Java programming.

Learning Outcomes

Upon successful completion of this program, a student will be able to:

A. Analyze a problem and interpret technical specifications to create and program appropriate algorithmic solutions that include the use of control structures, parameters and return values.

B. Design and implement abstract data types using classes, encapsulation, inheritance and polymorphism.

C. Write Java code for client (interface) and implementation levels for array-based and linked data structures.

D. Compare and contrast algorithms for efficiency.

E. Predict the results of code using the data structures stacks, queues, trees, graphs, heaps, hash tables and priority queues with associated algorithms such as insertion, deletion, retrieval, search, and traversal.

F. Write Unix commands to manipulate files, directories, their contents and their permissions.

G. Write and implement Java programs that handle exceptions and events and use multithreading, collections and generics.

H. Write multiple table database queries in SQL.

Courses Required for the Certificate of Achievement in Computer Programming: Java

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 111A Intro to Programming: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 111B Programming Fundamentals: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 111C Data Structures and Algorithms: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 160A Introduction to Unix/Linux</td>
<td>2</td>
</tr>
<tr>
<td>CS 211S Adv Java: Standard Edition</td>
<td>3</td>
</tr>
<tr>
<td>CS 150A SQL Server Databases</td>
<td></td>
</tr>
<tr>
<td>or CS 151A Oracle SQL Databases</td>
<td></td>
</tr>
<tr>
<td>or CS 155A MySQL Databases</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>16-17</td>
</tr>
</tbody>
</table>

Students must achieve a grade of C or higher in all courses. Where available, grades of "Pass" may also be used.

Computer Programming: Visual Basic with Database Certificate

This certificate includes instruction and practice in the Visual Basic programming language and the Microsoft SQL Server database system in addition to the fundamentals of computer programming systems and database processing. This course of study prepares students for entry-level positions in database management and development and in computer programming in a variety of settings.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 110A Intro to Programming: C++</td>
<td>3</td>
</tr>
<tr>
<td>CS 110B Programming Fundamentals: C++</td>
<td>3</td>
</tr>
<tr>
<td>CS 110C Data Structures &amp; Algorithms: C++</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units ........................................ 31

*Students who complete CS 110B must take CS 110C, and students who complete CS 111B must take CS 111C.

Certificate Curricula

The certificate programs are designed to meet the needs of students who want 1) to obtain entry-level employment, 2) to increase their opportunities to advance in their current positions, or 3) to change the kind of work they do currently. Certificate programs make it possible for a student to demonstrate specialization in the areas such as computer programming, multimedia, and Unix/Linux administration and programming.

Requirements for the Certificate of Accomplishment or Achievement. A student may obtain the Certificate of Accomplishment or Achievement by completing each of the courses offered in the certificate program with a grade of C or higher.

Many certificate programs are available. Each program prepares a student for a different career path. Additional information is available from the Department degree advisor or the Department Chairperson.
Learning Outcomes

Upon successful completion of this program, a student will be able to:

A. Analyze a problem and interpret technical specifications to create and program appropriate algorithmic solutions that include the use of control structures, subroutines and parameters, arrays, and List(of T) collections.

B. Write Visual Basic code to create console applications and windows forms applications that include event handling for form controls and other programming events.

C. Design and implement abstract data types using classes, encapsulation, inheritance and polymorphism.

D. Create Visual Basic applications that use ADO.NET techniques to interact with SQL Server databases including updating the database.

E. Design and create queries in T-SQL for accessing and updating data including inner and outer joins, aggregate queries, subqueries, analytical queries, and XML techniques.

F. Create SQL Server stored procedures, user defined functions, triggers, and routines using CLR techniques.

G. Design and create relations and other objects as a normalized database and implement that design.

Courses Required for the Certificate of Accomplishment in Computing Skills for Scientists

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 110A Intro to Unix/Linux</td>
<td>3</td>
</tr>
<tr>
<td>CS 111A Visual Basic.NET Object Oriented</td>
<td>3</td>
</tr>
<tr>
<td>CS 112A Visual Basic.NET w/ Databases</td>
<td>3</td>
</tr>
<tr>
<td>CS 150A SQL Server Databases</td>
<td>3</td>
</tr>
<tr>
<td>CS 150P SQL Server Programming Using T-SQL</td>
<td>3</td>
</tr>
<tr>
<td>CS 159A Database Design and Modeling</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Students must complete each course with a grade of C or higher in all courses. Where applicable, grades of "Pass" may also be used.

Computing Skills for Scientists Certificate

This certificate will give working scientists an introduction to technical computing skills. Students will learn the basics of working in a Unix or Linux environment, learn basic programming techniques using Perl, and will learn database fundamentals using MySQL. This certificate can be completed in one semester.

Learning Outcomes

Upon successful completion of this program, a student will be able to:

- Think critically and apply the scientific method
- Write Unix commands including redirection and pipes, to manipulate files, directories, their contents and their permissions.
- Create regular expressions to perform pattern matching.
- Analyze common text processing tasks and interpret technical specifications to create and program algorithmic solutions, including the use of control structures, subroutines, lists and hashes.
- Write multiple table database queries in SQL.

Courses Required for the Certificate of Accomplishment in Computing Skills for Scientists

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 160A Introduction to Unix/Linux</td>
<td>2</td>
</tr>
<tr>
<td>CS 113A Introduction to Perl Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 155A MySQL Databases</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

Students must receive a grade of C or higher in all courses. Where available, grades of "Pass" may also be used.

Database Programming: MySQL/Open Source Technologies Certificate

This certificate is designed to introduce students to MySQL database fundamentals and interacting with databases using both SQL queries and procedural programming experience before attempting this certificate, such as CS 110A, 111A, or 112A. This course of study prepares students for entry-level positions in database management and development.

Learning Outcomes

Upon successful completion of this program, a student will be able to:

A. Design and create queries in MySQL for accessing and updating data, including inner and outer joins, aggregate queries, and subqueries.

B. Analyze a problem and interpret business requirements to create and program appropriate solutions that use queries and programming components such as MySQL procedures, functions, and triggers.

C. Design and create relations and other objects as a normalized database and implement that design.

D. Develop applications with a programming language (PHP, Perl, Python, or Ruby) that interact with MySQL Database

E. Install and configure a MySQL Database Management System and use MySQL client and utility programs to monitor system performance, manage accounts, and develop and implement backup and recovery plans.

Courses Required for the Certificate of Accomplishment in Database Programming MySQL/Open Source Technologies

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 155A MySQL Databases</td>
<td>3</td>
</tr>
<tr>
<td>CS 155B MySQL Database Administration</td>
<td>3</td>
</tr>
<tr>
<td>CS 155P Programming with MySQL</td>
<td>3</td>
</tr>
<tr>
<td>CS 159A Database Design and Modeling</td>
<td>3</td>
</tr>
<tr>
<td><strong>Elective Courses: Choose one of the following:</strong></td>
<td></td>
</tr>
<tr>
<td>CS 130A PHP Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 113A Introduction to Perl Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 131A Python Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 132A Ruby Programming</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Students must complete each a course with a grade of C or higher. Where applicable, grade of "Pass" may also be used.

Database Programming: Oracle Certificate

This certificate is designed to introduce students to Oracle database fundamentals and interacting with databases using both SQL queries and procedural programming techniques. It is advised that students have at least one semester of programming experience before attempting this certificate, such as CS 110A, 111A, or 112A. This course of study prepares students for entry-level positions in database management and development.
Learning Outcomes
Upon successful completion of this program, a student will be able to:

A. Design and create queries in Oracle SQL for accessing and updating data, including inner and outer joins, aggregate queries, subqueries, and analytical queries.

B. Analyze a problem and interpret business requirements to create and program appropriate solutions that use queries and programming components such as PL/SQL packages, procedures, functions, triggers, exception handling, composite data types, user-defined records, and collections.

C. Design and create relations and other objects as a normalized database and implement that design.

D. Install and configure an Oracle Relational Database Management System, monitor system performance, and develop and implement plans for security, backup, recovery, and networking of the databases.

Courses Required for the Certificate of Accomplishment in Database Programming: Oracle

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 151A Oracle SQL Databases</td>
<td>3</td>
</tr>
<tr>
<td>CS 151B Oracle Database Administration</td>
<td>3</td>
</tr>
<tr>
<td>CS 151P Oracle PL/SQL Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 159A Database Design and Modeling</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
</tr>
</tbody>
</table>

Students must complete each a course with a grade of C or higher. Where applicable, grade of “Pass” may be used.

LAMP Fundamentals Certificate
The program of study for the certificate in LAMP (Linux, Apache, MySQL and PHP/Perl/Ruby) Fundamentals will give students an introduction to open source computing skills. Students will learn the fundamentals of: working in a Linux environment; installing Apache web servers; using MySQL databases; and, basic programming techniques using PHP or Perl or Python or Ruby. This course of study prepares students for entry-level positions in LAMP operations and administration.

Courses Required for the Certificate of Accomplishment in LAMP Fundamentals

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 160A Introduction to Unix/Linux</td>
<td>2</td>
</tr>
<tr>
<td>CS 160B Unix/Linux Shell Scripting</td>
<td>2</td>
</tr>
<tr>
<td>CNIT 271I Apache Web Server Introduction</td>
<td>1</td>
</tr>
<tr>
<td>CNIT 201E Network Fundamentals</td>
<td></td>
</tr>
<tr>
<td>or CNIT 106 Introduction to Networks</td>
<td>3</td>
</tr>
<tr>
<td>CS 155A MySQL Databases</td>
<td>3</td>
</tr>
<tr>
<td>CS 130A PHP Programming</td>
<td></td>
</tr>
<tr>
<td>or CS 113A Introduction to Perl Programming</td>
<td></td>
</tr>
<tr>
<td>or CS 131A Python Programming</td>
<td></td>
</tr>
<tr>
<td>or CS 132A Ruby Programming</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
</tr>
</tbody>
</table>

Students must receive a grade of C or higher in all courses. Where applicable, grades of “Pass” may also be used.

LAMP Administration Certificate
The program of study for the certificate in LAMP (Linux, Apache, MySQL and PHP/Perl or Ruby) Administration includes instruction and practice in: administering a Linux server; configuring an Apache web server; installing a MySQL Database; and advanced programming techniques using PHP or Perl or Ruby. This course of study prepares students for entry-level positions in LAMP operations and administration. It is required that a student have completed the certificate in LAMP Fundamentals prior to pursuing this program of study.

Learning Outcomes
Upon successful completion of this program, a student will be able to:

A. Perform administration tasks such as monitor system startup and shutdown, add, remove and configure user accounts and groups, maintain a file system, perform a backup/recovery, analyze log files and configure and manage serial devices.

B. Install, upgrade, configure, customize, manage and test common network services such as DNS, sendmail, Apache and MySQL server.

C. Configure complex virtual hosting and support web applications with dynamic content including CGI, Perl, PHP, and database access.

D. Monitor, measure and analyze access to improve performance and web site security.

E. Create advanced regular expressions including modifiers, operators, and metacharacters to perform pattern matching.

F. Analyze common system, network and database administration tasks and interpret technical specifications to create and program appropriate solutions such as shell scripts, that include the use of abstract data types using classes, encapsulation, inheritance and polymorphism, process manipulation and interprocess communication.

Courses Required for the Certificate of Accomplishment in LAMP Administration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 260A Unix/Linux System Administration</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 272 Apache Web Server Advanced</td>
<td>2</td>
</tr>
<tr>
<td>CNIT 270 Unix/Linux Network Services</td>
<td>3</td>
</tr>
<tr>
<td>CS 155B MySQL Database Administration</td>
<td>3</td>
</tr>
<tr>
<td>CS 130B Advanced PHP Programming</td>
<td></td>
</tr>
<tr>
<td>or CS 113B Object Oriented Perl Programming</td>
<td>3-4</td>
</tr>
<tr>
<td>or CS 232 Ruby on Rails Development</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14-15</td>
</tr>
</tbody>
</table>

Students must receive a grade of C or higher in all courses. Where applicable, grades of “Pass” may also be used.

Multimedia Programming
See Page 276.

Unix/Linux Administration Certificate

The program of study for the certificate in Unix/Linux Administration includes instruction and practice in using and administering a Unix/Linux system. This course of study prepares students for entry-level positions in Unix/Linux operations and administration.

Learning Outcomes
Upon completion of this certificate, students will be able to:

A. Write Unix commands including redirection and pipes, to manipulate files, directories, their contents and their permissions.

B. Create a regular expressions to perform pattern matching.

C. Analyze common system and network administration tasks and interpret technical specifications to create shell scripts, including the use of control structures, subroutines and lists.
D. Perform System Administration tasks such as monitor system startup and shutdown, add, remove and configure user accounts, maintain a file system, perform a backup and configure and manage serial devices.

E. Install, configure and maintain common network services such as DNS, Apache and sendmail.

Courses Required for the Certificate of Achievement in Unix/Linux Administration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 160A Introduction to Unix/Linux</td>
<td>2</td>
</tr>
<tr>
<td>CS 160B Unix/Linux Shell Scripting</td>
<td>2</td>
</tr>
<tr>
<td>CS 260A Unix/Linux System Administration</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 270 Unix/Linux Network Services</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 271 Apache Web Server Introduction</td>
<td>1</td>
</tr>
<tr>
<td>CS 113A Introduction to Perl Programming</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 201E Network Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>or CNIT 106 Introduction to Networks</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
</tr>
</tbody>
</table>

Instructions: Students must receive a grade of C or higher in all courses. Where available, grades of "Pass" may also be used.

Announcement of Courses

Credit, Degree Applicable Courses:

CS 100. Introduction to Computer Science (3)
Lec-3, lab-1 P/NP available
Introduction to computer science. Emphasis is on properties of algorithms, hardware design, system software and networks, computer organization, data representation, languages, theory of computation, applications and social issues. Students learn algorithms and use programming techniques to solve problems. CSU/UC

CS 100M. Introduction to Computers Using Macintosh (3)
Lec-3, lab-3 P/NP available
A computer literacy course using Macintosh computers. Prepares students to use computers to write papers, organize information, and use e-mail. Overview of computer components such as hardware, software and data. Fundamentals of the Finder and applications such as word processing, spreadsheets and the Internet. Students use computers to complete class assignments. CSU/UC

CS 101. Intro to Information Systems (3)
Lec-3, lab-0.5
Introduction to the uses and technology of computers. Emphasis is on the vocabulary of computer systems, hardware, software, networks, data representation and manipulation, communications, the Internet, ethics and privacy issues, and developments and trends. Survey of job opportunities in the computer field and how computers are used in business, research and government. Students use a computer application (spreadsheet) as a problem-solving tool and use macros and Visual Basic for Applications to learn programming fundamentals. CSU/UC

CS 110A. Intro to Programming: C++ (3)
Lec-3, conf-1, lab-3
Advisory: MATH 40
Introduction to computer programming and problem solving. No prior programming experience required. Concepts include: problem solving techniques, algorithms, program design, control structures, functions, arrays and use of the C++ programming language. CSU/UC

CS 110B. Programming Fundamentals: C++ (3)
Lec-3, conf-1, lab-3
Prerequisite: CS 110A
This course covers pointers, arrays with structured elements, file handling, dynamic memory allocation, and building abstract data types. Programming assignments require planning, good coding practices, and documentation. Applications include both numerical and non-numerical problems. CSU/UC

CS 110C. Data Structures and Algorithms: C++ (3)
Lec-3, conf-1, lab-3
Prerequisite: CS 110B
A course in the analysis and design of computer algorithms and the underlying data structures using an object-oriented approach. Analysis in the timing and efficiency of algorithms. Study of lists, stacks, queues, trees, searching, sorting, and recursion. Introduction to graphs, tables, hashing, and direct access files. Further study of ADTs. CSU/UC

CS 111A. Intro to Programming: Java (3)
Lec-3, Conf-1, lab-3
Advisory: MATH 40
Intro to computer programming and problem solving. No prior programming experience required. Course concepts include: problem solving techniques, algorithms, program design, control structures, functions, arrays and use of the Java programming language. CSU/UC

CS 111B. Programming Fundamentals: Java (3)
Lec-3, conf-1, lab-3
Prerequisite: CS 110A OR 111A
A continuation of the concepts introduced in CS 111A. Introduction to Programming, using Java as the programming platform. An object-oriented approach to problem solving. Classes, objects, references, dynamic memory allocation, inheritance, polymorphism, arrays, files. Design and implementation of abstract data types. Numerical and non-numerical applications. CSU/UC

CS 111C. Data Structures and Algorithms: Java (3)
Lec-3, conf-1, lab-3
Prerequisite: CS 111B
The analysis and design of computer algorithms and their underlying data structures. Analysis of the timing and efficiency of algorithms. Study of lists, stacks, queues, trees, backtracking, searching, sorting and recursion. Introduction to graphs, hash tables, heaps, priority queues, and direct access files. Further study of abstract data types and object-oriented programming. CSU/UC

CS 112A. Intro to Visual Basic.NET (3)
Lec-3, conf-1, lab-3
Prerequisite: CS 111A
A course in the analysis and design of computer algorithms and their underlying data structures. Analysis of the timing and efficiency of algorithms. Study of lists, stacks, queues, trees, backtracking, searching, sorting and recursion. Introduction to graphs, hash tables, heaps, priority queues, and direct access files. Further study of abstract data types and object-oriented programming. CSU/UC

CS 112B. Visual Basic.NET Object-Oriented (3)
Lec-3, conf-1, lab-3
Prerequisite: CS 112A
A continuation of CS 112A. Design and implementation of classes, objects, abstract data types, arrays, and collections. Use of inheritance, polymorphism, and structured exception handling. Development of Windows-oriented application programs with emphasis on object-oriented programming concepts and techniques. CSU
CS 112D. Visual Basic.NET w/ Databases (3)
Lec-3, conf-1, lab-3 P/NP available
Prereq.: CS 112A or experience programming with Visual Basic; and CS 150A or 151A or 155A or experience writing SQL queries
Advise: CS 112B
An intermediate course in computer programming and problem solving using Visual Basic.NET and ADO.NET. Students develop Windows-oriented application programs that interface with databases (SQL Server, Access, or Oracle) using the ADO.NET data access model. CSU

CS 113A. Introduction to Perl Programming (3)
Lec-2, conf-1, lab-3 P/NP available
Advise: CS 160A
An introduction to the interpreted language called Perl, the Practical Extraction and Report Language. Recommended for anyone working with files and text. This course covers the semantics and syntax of the Perl language, and includes discussion on the practical kinds of problems that Perl can solve and provides examples. Students write stand-alone programs that perform various tasks, including text and file manipulation. CSU/UC

CS 113B. Object Oriented Perl Programming (3)
Lec-2, conf-1, lab-3 Prereq.: CS 113A
A continuation of the concepts and principles introduced in CS 113A, Introduction to Perl Programming using an object-oriented approach to problem solving and program development. Packages, objects, references, nested data structures, advanced regular expressions, CGI and DBM topics are covered. Students write stand-alone and CGI programs to solve common data processing and system administration tasks. CSU

CS 114B. Programming Fundamentals I/C# (3)
Lec-3, conf-1, lab-3 P/NP available
Prereq.: CS 110A or 111A or 112A, or similar programming experience
A continuation of the concepts and principles introduced in CS 110A or 111A. It covers programming using the C# language and the .NET / Common Language Runtime platform. Students will learn Object Oriented software design techniques, and construct Graphical User Interface applications. CSU

CS 130A. PHP Programming (3)
Lec-3, conf-1, lab-3 P/NP available
Advise: CNIT 132 or demonstration exit skills; and CS 110A or 111A or 112A or 113A; or CS 131A or similar programming experience
Introduction to the open source Web scripting language PHP. Recommended for anyone needing to build dynamic Web sites and Web applications. Semantics and syntax of the PHP language, including discussion on the practical problems that PHP solves. Students write server-side, cross-platform, HTML embedded scripts that perform various tasks, including implementing dynamic Web pages that interact with databases and files. CSU

CS 130B. Advanced PHP Programming (3)
Lec-3, lab-3 P/NP available
Prereq.: CS 130A
This class covers using PHP for database connectivity to build scalable, dynamic websites. Assignments emphasize using PHP for user authentication, site personalization, content management, session tracking, and user-driven database updating. A class project demonstrates using PHP and a database (MySQL) to build a scalable, object oriented, template-based e-commerce website. CSU

CS 131A. Python Programming (3)
Lec-3, conf-1, lab-3 P/NP available
Advise: CS 110A or 111A or 113A or 130A or 112A or 161 or 160B
Introduction to the interpreted, interactive, object-oriented language Python. Recommended for anyone needing a general-purpose programming language and for those performing web site or system administration. Semantics and syntax of the Python language, including discussion on the practical problems that Python solves. Students write stand-alone programs that perform various tasks including interfacing to system calls and libraries; sending and retrieving information from web sites; and, connecting to databases. CSU

CS 132A. Ruby Programming (3)
Lec-3, lab-3 P/NP available
Advise: CS 110A or 111A or 113A or 130A or 112A or 161 or 160B
Recommended for anyone using the Ruby on Rails web framework, performing general-purpose programming, or web site or system administration. Solution of practical problems. Useful object-oriented design patterns. Creating stand-alone programs that interface to system calls and libraries and create a MVC (Model-View-Controller) web site that connects to databases. CSU

CS 132R. Ruby on Rails Workshop (1)
Lec-1 P/NP available
Advise: CS 110A or 111A or 113A or 130A or 112A or 161 or 160B
Demonstration of the Ruby on Rails web framework. Brief survey of Ruby programming language and Model View Controller design pattern. Ruby on Rails installation, including an installation on student's computer and ISP deployment. Build a shopping cart application with Content Management, User Authentication, Checkout System, Unit Testing, and AJAX capabilities. CSU

CS 141. Mastering Regular Expressions (1)
Lec-1, lab-1 P/NP only
Prereq.: CS 110A or 111A or 112A or 113A or 130A or 131A, or similar programming experience
Practice in the use of regular expressions to solve practical text processing techniques. Students can choose to solve problems in the language of their choice. CSU

CS 142. Programming Techniques for XML (2)
Lec-2, lab-2 P/NP available
Prereq.: CS 110A or 111A or 112A or 113A or 130A or 131A, or similar programming experience
Programming techniques for processing XML data. Comparison of programming approaches, including SAX, SAX-like, and DOM interfaces. Navigating, filtering, and modifying XML. Transformation of XML data. CSU

CS 150A. SQL Server Databases (3)
Lec-3, lab-3 P/NP available
A course in the use of the SQL Server database management system to create, update and query database tables. This course covers both the syntax and the logic of the major features of the T-SQL language. The course includes a brief introduction to the programming aspects of T-SQL. CSU
CS 150P. SQL Server Programming Using T-SQL (4)  
Lec-4, lab-4 P/NP available  
Prereq.: CS 150A or 151A or 155A, or prior SQL experience  
An advanced course in the use of Microsoft SQL Server techniques.  
Design and develop SQL Server program units using the T-SQL  
language: stored procedures, user-defined functions, and database  
triggers. Create Visual Basic NET CLR (Common Language Runtime)  
routines for use in SQL Server. Work with dynamic SQL and with  
XML data. CSU

CS 151A. Oracle SQL Databases (3)  
Lec-3, lab-3 P/NP available  
A course in the use of Oracle database management system to create,  
update, and query database tables. The course covers both the syntax  
and the logic of the major features of the Oracle SQL language. The  
course includes a brief introduction to the programming aspects of PL/  
SQL. CSU

CS 151B. Oracle Database Administration (3)  
Lec-3, lab-3 P/NP available  
Prereq.: CS 150A or 151A  
Advis: CS 160A  
An advanced course in the architecture, design, configuration,  
installation, and maintenance of an Oracle relational database man-  
agement system. Student will gain the knowledge and skills needed to  
administer an Oracle client/server database in an enterprise network  
environment. CSU

CS 151P. Oracle PL/SQL Programming (4)  
Lec-4, lab-4 P/NP available  
Prereq.: Completion of or concurrent enrollment in CS 151A  
or experience writing SQL  
An intermediate course in the use of the PL/SQL programming lan-  
guage. Create and manage PL/SQL program units and data structures,  
stored procedures and functions, database triggers, and packages to  
process data using database objects. CSU

CS 155A. MySQL Databases (3)  
Lec-3, lab-3 P/NP available  
A course in the use of MySQL database management system to create,  
update, and query database tables. The course covers both the syntax  
and the logic of the major features of the MySQL language. The course  
includes a brief introduction to the programming aspects of MySQL.  
CSU

CS 155B. MySQL Database Administration (3)  
Lec-3, lab-3  
Prereq.: CS 155A  
Advis: CS 160A  
Students install and configure a MySQL server and create and manage  
user accounts. Issues pertaining to optimization, security, privileges,  
tuning, troubleshooting, and performing upgrades are studied and  
practiced. CSU

CS 155P. Programming with MySQL (3)  
Lec-3, lab-3 P/NP available  
Prereq.: CS 155A or CS 150A or CS 151A or demonstration of  
exit skills  
An advanced course in the use of MySQL techniques to process  
database objects. Design and develop MySQL program units: stored  
procedures, functions, and database triggers. Work with dynamic SQL  
and with XML data. CSU

CS 159A. Database Design and Modeling (3)  
Lec-3, lab-3 P/NP available  
Prereq.: CS 150A or 151A, or CS 150P  
A course in the design of database structures and the use of database  
modeling tools. CSU

CS 160A. Introduction to Unix/Linux (2)  
Lec-2, lab-2 P/NP available  
Introduction to using the Unix/Linux operating system. Unix/Linux  
file management and common text processing utilities including  
searching. CSU/UC

CS 160B. Unix/Linux Shell Scripting (2)  
Lec-2, lab-2 P/NP available  
Prereq.: CS 160A or demo of CS 160A exit skills  
Analyze, design, write, test, and debug Unix shell scripts. Students  
learn basic scripting techniques and develop scripting skills needed  
for Unix/Linux System Administration courses. The bash shell is used.  
CSU/UC

CS 161. C for Unix and Linux (3)  
Lec-3, conf-1, lab-3  
Prereq.: CS 160A  
Advis: CS 110A or 111A or 112A  
Computer programming using the C language on Unix and Linux  
systems. Recommended for students who are studying the Unix and  
Linux operating systems and who have had some previous program-  
ming experience. Standard C header files and Unix documentation  
are used to implement solutions to programming problems. The Unix  
compilation system is used and issues about building commonly avail-  
able software packages are discussed. CSU

CS 162. Linux Installation (1)  
Lec-1 P/NP only  
Prereq.: CS 160A  
The study and practice of the minimal administration skills needed  
to install a standard Linux or Open Source Unix distribution on a  
personal computer. An actual installation is performed, either on the  
student's own computer or on a classroom computer. Alternate sec-  
tions may install different distributions. An overview is given of Unix/  
Linux courses for further study. CSU

CS 170A. Principles of Artificial Intelligence (3)  
Lec-3, lab-3  
Prereq.: PHIL 12A  
Advis: CS 110A or 111A or 112A  
Fundamental concepts and techniques of Artificial Intelligence (AI)  
and the Language of First Order Logic (FOL). Use of simple structure  
First Order Logic sentences to encode knowledge to be stored and  
used by a computer. Model thinking by manipulating FOL sen-tences.  
FOL will be used as a precise specification language for stating axioms  
and proving theorems in logic. CSU

CS 170P. Prolog Programming (3)  
Lec-3, lab-3, conference-1  
Advis: CS 170A and an introductory course in programming  
such as CS 110A or 111A or 112A  
Fundamental concepts and techniques of programming using Prolog.  
Prolog programming projects will include machine learning, expert  
systems, goal-oriented programming, and constraint logic program-  
mapping. CSU
CS 172X. Programming with Online Data (3)
Lec-3, conf-1, lab-3
Computing techniques used in the processing of publicly available data, with an emphasis on scientific data. Explores ways to make local versions of publicly available data, data storage techniques, and data processing techniques, including statistical analysis and data visualization. Students work on a final project in their field of interest. CSU

CS 176. Systems Analysis and Design (3)
Lec-3
Prereq.: CS 112A or 110A or 111A or 150A or 151A
Analysis and design of computer-oriented systems from inception to implementation. Problem definition, analysis of present systems, interviewing techniques, questionnaires, cost statements, forms design, presentations, hardware and software alternatives. Case study of a typical commercial data-processing system. CSU

CS 177. Software Engineering (3)
Lec-3, lab-3
Prereq.: CS 110A or 111A or 112A or 113A or 130A or 131A, or similar programming experience
Overview of the entire software engineering process from start to finish. Includes Analysis, Design, Development, Project Management, Testing, and Evolution. Use of industry techniques and tools including UML diagrams, version control and installation software. CSU/UC

CS 180. Designing Interactive Applications with Flash (3)
Lec-3, lab-3
Prereq.: CS 183A or MMSP 140
A course that combines design and programming to show students an overview of what's possible in Flash and provide hands-on experience building web sites and other Flash applications. The class format includes lecture, discussion, hands-on exercises and a final project. CSU

CS 180A. Multimedia Tools (3)
Lec-3, lab-3
Prereq.: CS 100M or CNIT 100 or MMSP 120
Advis: CS 100M or CNIT 100 or MMSP 120
Repeat: max. 6 units
Hands-on survey of multimedia theory and practice. Team approach to the design and production of interactive multimedia projects. Multimedia applications, including authoring, video capture, audio capture, and animation. Multimedia hardware, including Macintosh and Windows platforms, audio and video capture cards, and peripherals. CSU

CS 183A. Multimedia Programming I (3)
Lec-3, conf-1, lab-3
Prereq.: CS 183A or MMSP 140, or experience using Flash: graphic tools, built-in objects, and how to create timeline-based movies
Multimedia game programming using Macromedia Flash ActionScripting. Program design and implementation, including algorithms, data structures, control structures, style, and debugging techniques for the creation of web-based interactive games. CSU

CS 183B. Advanced Multimedia Programming (3)
Lec-3, conf-1, lab-3
Prereq.: CS 183B
Object-oriented programming for the creation of multimedia projects. Programming games and simulations. Advanced data structures, including multidimensional arrays, queues, and stacks. Inheritance, encapsulation, and polymorphism. CSU

CS 183F. Flex Programming (3)
Lec-3, lab-3
Prereq.: CS 110A or 111A or 112A or 130A or 131A
Advis: CS 142 or CNIT 134
Learn the Flex framework to create Flash-based Rich Internet Applications using object-oriented programming and XML. Create and customize application layout using built-in and custom-built components for data binding, forms, and validation tasks. Manage state using the Model View Controller design pattern. Debug applications locally and remotely. CSU

CS 198. Industry Internship (1, 2, 3, or 4)
Conf-1, work-5, 10, 15, or 20
P/NP available
Coreq: Enrollment in 7 units including this course and consent of instructor
Repeat: max. 3, 6, 9, or 12 units
Internship programs are joint ventures between institutions or companies in the Bay Area and the Computer Science Department. Students are employed in areas such as computer programming; database administration, programming, or design; Unix/Linux administration or programming; multimedia programming; or other computer science related fields. CSU

CS 199. Independent Study (1-3)
Ind-st-5,10,15
Prereq.: CS 111B
Repeat: max. 6 units (new subj.)
Large-scale individual projects in computer programming to be defined in cooperation with an instructor-supervisor. Student opportunity to complete independent programming study. CSU (UC upon review)
Formerly CIS 199.

CS 211D. Android Programming (3)
Lec-3, lab-3
Prereq.: CS 111B or demonstration of exit skills
An advanced course in the design and development of applications for mobile devices running the Android operating system. Students will use the Android SDK to create programs including how to craft User Interfaces (UIs), create location-based applications, and access web services. CSU

CS 211E. Advanced Java: Enterprise Edition (3)
Lec-3, lab-3
Prereq.: CS 111B
Advis: CS 211S
Advanced Java Enterprise Edition features of the Java language essential for building network and web oriented applications. Topics include networking, JDBC, RMI, Servlets, JSP, JNDI, JavaBeans, XML, and ANT. CSU

CS 211G. Game Programming in Java (3)
Lec-3, lab-3
Prereq.: Completion of or concurrent enrollment in CS 111B
Core aspects of developing games in Java. Creation and control of geometric elements and sprites, animated characters, and scrolling backgrounds. Keyboard, mouse, and joystick input techniques. Use of imported digital sound effects and images. An overview of enhancing playability by implementing Artificial Intelligence, kinematics, physics, and the element of chance. CSU
CS 211M. Advanced Java: Micro Edition (2)
Lec-2, lab-2
Prereq.: CS 110B
Advis: CS 211S
Principles of application development on small, limited resource devices using the Java 2 Micro Edition environment with a focus on the Connected Limited Device Configuration (CLDC) and Mobile Information Device Profile (MIDP) architecture. CSU

CS 211S. Advanced Java: Standard Edition (3)
Lec-3, lab-3
Prereq.: CS 111B
Introduces advanced Java language features and packages that are essential for building Java Standard Edition applications. Topics include multithreading, collections, networking, and Swing classes. Helps prepare students for industry certification in Java programming. CSU

CS 211V. Graphics Programming in Java (3)
Lec-3, lab-3, conference-1
Prereq.: CS 111B
Core aspects of creating 2D shapes and GUIs using AWT (Abstract Windowing Toolkit) and Swing. Color, Graphics, Font, and Font metrics classes. Loading and manipulating images within AWT and Swing GUI applications. Using Layout Managers to position GUI controls in Containers. Handling user input using Event and Listener classes. CSU

CS 212. iPhone Programming (3)
Lec-3, lab-3, conference-1
Prereq.: CS 110B or CS 111B or Demonstration of Exit Skills
An advanced course in the design and development of Graphical User Interface applications for the iPhone and iTouch platforms. Students will use XCode and Interface Builder to write Objective C applications on the iPhone SDK.

CS 212. iPhone Programming (3)
Lec-4, lab-4, conference-1
Prereq.: CS 132A
Advis: CNIT 132
Learn to develop data driven web applications using Ruby on Rails. The course covers all of the core aspects of the framework including ActiveRecord, ERB, Rails Controller classes, Action Mailer, and application testing. CSU

CS 260A. Unix/Linux System Administration (3)
Lec-3, conf-1, lab-3
Prereq.: CS 160B or Demo of CS 160B Exit Skills
Examination of the skills necessary to effectively perform the responsibilities of a UNIX/Linux system administrator such as setting up new users, monitoring system activity, configuring the startup process, managing the file system, performing backups, and maintaining security. Shell programming is used as an aid for automating system administration tasks. CSU

CS 261A. Unix/Linux Systems Programming (3)
Lec-3, lab-3
Prereq.: CS 161
An overview of Unix/Linux system calls, the functions in the standard library, which access the lowest level resources of the Unix/Linux operating system. Emphasis is on writing programs for controlling file I/O, terminal I/O and buffering characteristics, process handling, signal handling, pipes, file locking, network-based inter-process communication using sockets, and RPC. This course provides concrete examples of the Unix/Linux system call interface using the C and/or C++ programming language. CSU

CS 261B. Advanced Unix/Linux Systems Programming (3)
Lec-3, lab-3
Prereq.: CS 261A
An advanced course in programming of Unix systems. Emphasis is on writing advanced programs for controlling processes. This course provides advanced examples of the Unix system call interface using the C programming language. CSU

CS 262. Unix/Linux Network Programming (3)
Lec-3, lab-3
Prereq.: CS 161 and CNIT 106 or 201
An overview of Unix/Linux system calls, the functions in the standard library, which access the lowest level resources of the Unix/Linux operating system. Emphasis is on writing programs for controlling network-based inter-process communication using sockets, and RPC. This course provides concrete examples of the Unix/Linux system call interface using the C and/or C++ programming language. CSU

CS 267. Unix and Linux Security (3)
Lec-3, lab-3
Prereq.: CNIT 106 or 201
Advis: CS 161 or CNIT 270
Security issues on Unix and Linux platforms arising from networked and system operations. Vulnerabilities and weaknesses of common services are discussed and solutions and workarounds are proposed. Programmed threats and denial of service attacks and their sources are examined. Detect, neutralize, and recover from security breaches. Shell programming to simulate attacks of vulnerable network services. CSU

CS 270. Computer Architecture with Assembly Language (3)
Lec-3, conf-1, lab-3
Prereq.: CS 110B or 111B
This course covers Computer Organization, hardware and software structure, datapath, ALU, register storage, binary representation of data and its conversion, algebra, memory organization, addressing, interrupts and virtual memory. It also compares embedded vs. general purpose systems, CISC vs. RISC architectures and includes an introduction to multiprocessing issues. CSU/UC

CS ORAX. Oracle and XML (1)
Lec-1, lab-1
Prereq.: CS 150A, 151A, or 155A
Introduction to the technologies available in Oracle 10G for working with XML (Extensible Markup Language) data. Explores the differences in working with data in a standard relational database and with XML data. Generation of XML data from relational data; storing XML natively in the database; querying XML data. CSU

CS ORBX. Oracle Object-Relational Database Concepts (1)
Lec-1, lab-1
Prereq.: CS 150A or 151A or 155A
Advis: CS 151P
Introduction to the object relational database (ORDB) model as implemented by Oracle 10G. Comparison of object types and related object-oriented features such as variable-length arrays and nested table. Creating objects views. Using object type as columns in a table and using pure object tables. CSU
Discussion of the nutritional needs and special nutrition issues common
in public health and health care settings.

Learning Outcomes

Upon successful completion of the program students will be able to:

1. Develop and attain the knowledge, skills, and competencies in the delivery of nutrition-related services in preparation for entry-level employment in the nutrition field.

2. Apply and integrate theoretical knowledge and acquire practical skills at supervised practice sites under the guidance of a registered dietitian.
   a. Describe the organization, its goals/purposes, and delivery of services.
   b. Communicate program value.
   c. Conduct program value.
   d. Apply knowledge of basic nutrition principles.
   e. Demonstrate cross-cultural competence and respect for diversity.
   f. Maintain effective internal and external partnerships and interpersonal relationships.
   g. Demonstrate personal accountability.
   h. Maintain accurate records and reports.
   i. Demonstrate excellence in teaching.
   j. Administer nutrition screening, assessment, and counseling (of low-risk clients under supervision of Registered Dietitian).
   k. Apply knowledge of food safety and sanitation.
   l. Demonstrate technology literacy.

3. Achieve or progress towards educational or career advancement in nutrition and health field.

Nutrition Assistant Certificate

(Starts each Fall Semester.)

Admission Requirements. Admission to the program is based on the following:

1. Graduation from an accredited high school or have passed the G.E.D. test or have passed the California High School Proficiency examination.

2. Completion of HOEC 98, Introduction to Dietetics Profession with a grade of C or higher.

3. Recommended completion of ESL 150 or placement in ENGL 90 or ESL 160.

*If the number of students who meet criteria #2 exceeds maximum class size, admission will also be determined by the earliest registration date.

All applicants to the program must enroll in HOEC 98 which is offered the first five weeks of the fall semester. Upon admission to the program, the student will enroll in the other courses which start the sixth week of the same semester.

The certificate requires completion of 17 units. Each course must be completed with a final grade of C or higher and a Pass grade in the field experience.

Courses Required for the Certificate of Achievement in Nutrition Assistant

Sequence of Required Completion

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester (Fall)</strong></td>
<td></td>
</tr>
<tr>
<td>HOEC 98 Introduction to Dietetics Profession</td>
<td>1</td>
</tr>
<tr>
<td>HOEC 99 Nutrition for Health</td>
<td>3</td>
</tr>
<tr>
<td>(or equivalent)</td>
<td></td>
</tr>
<tr>
<td>HOEC 100 Foodways, Nutrition and Health</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester (Spring)</strong></td>
<td></td>
</tr>
<tr>
<td>HOEC 104 Life Span Nutrition and Assessment</td>
<td>4</td>
</tr>
<tr>
<td>HOEC 105 Clinical and Community Nutrition</td>
<td>4</td>
</tr>
<tr>
<td>HOEC 106 Nutrition Assistant Field Experience</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

Announcement of Courses

Credit, Degree Applicable Courses:

HOEC 98. Introduction to Dietetics Profession (1)
Lec-16 (total hrs)
Focuses on the scope and nature of work in the nutrition field, including higher education pathways, career opportunities, professional roles, skills, responsibilities, ethics. Includes guest presentations by various nutrition paraprofessionals and networking opportunities with registered dietitians. This course is a prerequisite for acceptance of the Nutrition Assistant Program. CSU

HOEC 99. Nutrition for Health (3)
Lec-54 (total hrs)
Prereq.: HOEC 98
Intermediate level nutrition for students planning to work as paraprofessionals in nutrition and health. The course uses a practical approach to the study of nutrients and health with less emphasis on biochemistry. Basic principles and tools for planning a healthy diet, and nutrition issues of current interest will be analyzed. CSU

HOEC 100. Foodways, Nutrition and Health (3)
Lec-54 (total hrs)
Prereq.: HOEC 98
A study of the cultural and socioeconomic influences on the food habits of different ethnic groups in the United States and their diet-related health risks and implications. Cross-cultural counseling strategies, food service sanitation and safety, and optimal use of the food dollar will also be covered. CSU

HOEC 104. Life Span Nutrition and Assessment (4)
Lec-66 (total hrs)
Prereq.: HOEC 99
A study of the nutritional needs and special nutrition issues common at different periods of the life cycle from conception, infancy, childhood, adolescence, young, middle and late adulthood, including
pregnancy and lactation. Also covers nutrition screening parameters to assess nutrition risk for each age group. CSU

HOEC 105. Clinical and Community Nutrition (4)
Lec-66 (total hrs)
Prereq.: HOEC 99
A two-part course that focuses on the principles of medical nutrition therapy and on nutrition applications in public health. Intended for those planning careers in the field of nutrition. CSU

HOEC 106. Nutrition Assistant Field Experience (2)
Work-160 (total hrs)  P/NP only
Prereq.: Completion of HOEC 98, 99, 100, 104, & 105 with a grade of “C” or higher
Learn entry-level, job-specific skills and competencies in the delivery of nutrition care and services under the supervision of registered dietitians while placed at various field experience sites such as Women, Infants, and Children (WIC) Supplemental Nutrition Programs, Head Start, senior nutrition programs, public health centers, or hospitals. CSU

HOEC 107. Introduction to Child Nutrition (3)
Lec-3
Overview of child nutrition issues, with an emphasis on practical skills and approaches to influence positive eating behaviors that promote optimal health and nutrition. Topics include basic nutrition principles, planning healthy meals and snacks, food safety, childhood obesity, physical activity, nutrition education, child nutrition programs and food assistance resources. CSU

HOEC 108. Sports Nutrition (3)
Lec-3
Overview of the science of sports nutrition, with emphasis on nutrition as it applies to fitness, sport-specific training, and athletic performance. Topics include nutrient requirements and dietary recommendations, energy metabolism, weight management, special nutrient needs during training and competition, nutritional ergogenics. CSU

Noncredit Course:
HOEC 6122. Consumer Education - Health and Nutrition (54 hrs)  P/NP only
Practical information, effective strategies, and skills that teach the student how to practice good nutrition, manage personal health, and maintain an active, healthy lifestyle in the later years.

Counseling, New Student
Office: Conlan 205
Phone Number: (415) 239-3296
Web Site: www.ccsf.edu/nscc

Announcement of Courses
Credit, Degree Applicable Courses:

AAPS 100. Achieving an Academic Attitude (3)
Lec-3  P/NP available
This course supports the development of a successful attitude in college, through an in-depth analysis of personal, family, community, and cultural influences. The focus is to teach students performance/ achievement-based competencies that encourage students to take personal responsibility in the creation of their educational action plan needed for academic success. CSU

AAPS 101. College Orientation (.5)
Lec-9 (total hours)  P/NP only
This course assists new students to identify their educational goals and chart their course to achieve success at City College. Through the course, students will also develop an understanding of the College’s policies and procedures, programs and services, expectations and requirements, as well as the campus facilities and students’ rights and responsibilities. As a result, new students will demonstrate higher levels of accomplishment and satisfaction. CSU

AAPS 102. Introduction to College (1)
Lec-18(total hrs)  P/NP only
This course is designed to aid the student’s exploration of academic programs, student services, college policies, student rights and responsibilities, graduation and transfer requirements, technology, campus resources, goal setting, and educational planning to enhance academic and personal success.

AAPS 103. Orientation to College Transfer (3)
Lec-3
An overview of the concepts and significance of factors that contribute to college transfer and success in college. Factors to be explored include social awareness, cultural identity, goal setting, educational planning, and college resources. Focus on understanding the college/ university systems and on understanding of the relationship of cultural experiences and college success. CSU/UC

AAPS 104. Student Success Seminar (.5)
Lec-.5  P/NP only
Repeat: max. 1 unit
This brief course is intended to help students on first- or second-semester probation to regain good academic standing. Students develop time management and motivational strategies and learn about available college resources to help them reach academic success. Students also learn about academic polices, educational goal options and decision making skills. CSU

AAPS 1111. Orientation to Noncredit Certificate Programs (15 hrs)  P/NP only
Emphasis placed on noncredit certificates and students application for entry-level and promotional opportunities. An overview of student support services, policies and procedures to earn noncredit certificates. Additionally, exploration of matriculation steps from noncredit to credit and opportunities related to other career majors.

GUID W. Guidance Workshop (0)
Personal development workshops designed to assist students in achieving their educational objectives.

Culinary Arts and Hospitality Studies
Office: Statler Wing 156
Phone Number: (415) 239-3152
Web Site: www.ccsf.edu/cahs

Announcement of Curricula
The Culinary Arts and Hospitality Studies (CAHS) Department (formerly the Hotel and Restaurant Department) includes both credit and non-credit programs.

Credit, Associate in Science Degree programs are offered with three distinct majors: Culinary Arts Management; Food Service
Management; or Hotel Management. (See below for details about these programs).

**Non-Credit Certificate Programs.** The Culinary and Service Skills Training Certificate Program, and the Baking and Pastry Certificate Program, provide short-term skills training for entry into the labor market and are offered for non-credit (no college credit). (See below for details about these programs).

**Credit, Consumer Classes.** These classes are offered for college credit and are designed for non-professionals and open to the general public. These courses are not included in the CAHS degree programs.

**Student Learning Outcomes.** (All Programs)

1. Students will be able to apply the concepts and techniques of sanitation to a food service environment.
2. Students will be able to demonstrate the use of proper purchasing, storage and costing techniques to profitably operate a food service establishment.
3. Students will be able to demonstrate the ability to work in a variety of dining room and hospitality environments.
4. Students will be able to demonstrate teamwork, planning, purchasing, production and service through practice.
5. Students will be able to demonstrate a sense of service and hospitality through community work and volunteering.

**General Information**

**History.** Established in 1936 as the Hotel and Restaurant Department, this was the first community college program in the United States offering training in hospitality subjects. Since then, thousands of hospitality professionals have graduated from the Program. The department is also supported by our extensive hospitality library, the Alice Statler Library.

**Employment.** Graduates find employment in many facets of the hospitality industry including hotels, restaurants, clubs, cafeterias, cruise ships, retirement communities, catering companies, educational institutions and purveyors, to name just a few.

The jobs that students receive immediately upon graduating varies greatly, depending upon which program they completed, their career goals, and practical experiences. Graduates may accept positions such as: line cook, pastry cook, baker, host, food servers, hotel reservationists, desk clerks, cashiers and night auditors; to entry level positions such as: line cook, pastry cook, baker, host, food servers, hotel reservationists, desk clerks, cashiers and night auditors; to entry level positions. Graduates progress in their careers to such positions as: Executive Chef, Restaurant and Hotel General Manager, Executive Pastry Chef, Concierge, Restaurant Owner, Food and Beverage Director, Garde Manager Chef, Sales Manager, Bakery Owner, Catering Director, Food Service Director, Sous Chef, Country Club Manager, Hotel Director of Sales and Marketing, Director of Banquets, Food Service Distributor, Consulting Firm President, Food Writer and Food Stylist, wine buyer, to name only a few.

**Associate in Science Degree Programs**

Please visit www.ccsf.edu/cahs for more information and an application.

**Student Learning Outcomes (Degree Programs).**

1. Students will be able to demonstrate the ability to work in a professional kitchen as a line and pantry cook.

2. Students will be able to demonstrate an understanding of the knowledge needed to be a supervisor in a food service establishment.

**Accreditation.** The Culinary Arts Management Program and the Food Service Management Program are accredited by The American Culinary Federation. Upon completion of their A.S. degree major, students will also be awarded a Certificate of Completion from the Accrediting Commission of the American Culinary Federation (ACF).

**Food Safety Managers Certification.** As a pre-requisite to graduation from the Culinary Arts Management Program, or from the Food Service Management Program, students are required to successfully pass a California food safety certification examination* issued by an accredited food protection manager certification organization (SB602 & Sec 113790 of CA Health & Safety Code).

* e.g.: The National Registry of Food Safety Professionals - Food Safety Manager Certification exam or the ServSafe Food Protection Manager Certification exam, issued by the National Registry of Food Safety Professionals.

**Applicants who have already earned a college degree (A.S./A.A., B.A./B.S., etc.) are required to fulfill CCFS A.S. degree requirements. Students should request an “Evaluation of Transfer Credit” after they are registered in classes and accepted to one of the CAHS degree programs.**

**Transfer.** Students who intend to transfer to four year universities for a baccalaureate degree should consult with our Program Advisor or Counselor for guidance on planning a program to transfer. The degree programs are designed to facilitate transferring to four year universities.

**Program Probation Policy.** Academic probation occurs when a student fails to maintain a 2.00 cumulative grade point average. Students are removed from probation when their cumulative grade point average is increased to a minimum of 2.50.

Disqualification. Students may be disqualified from the Program for any of the following reasons:

1. Receiving a final grade of “D” or “F” in any of the required major courses.
2. Remaining on probation for two consecutive semesters.
3. Receiving a final grade of “D” or “F” in a laboratory class being repeated, because of receiving an initial grade of “D” or “F”.
4. For reasons described in various sections of this catalog.

Students receiving a final grade of “D” or “F” in any of the consecutive laboratory series class (CAHS 10, CAHS 10Q, CAHS 20, CAHS 30) must confer with the Program Advisor and repeat those classes before progressing to the next class in the sequence.

**Culinary Arts Management Program**

**Introduction.** An Associate in Science degree with a major in the Culinary Arts Management is offered to prepare students for a culinary career. This is a two year, four semester course of study. This program and all of the degree programs include management related course in their respective fields.

This is a rigorous, full time, day program. Students are advised to be well prepared to commit themselves to being in school 8 hours per day, 5 days a week for the duration of the Program. Students who are entering college for the first time usually take five or more semesters to complete the program.
Culinary Arts and Hospitality Studies  

Course of Study. Students must take a core group of courses. Students in the Culinary Arts Management Program must take sequential laboratory courses in food preparation and service: CAHS 10 or CAHS 10Q, CAHS 20, CAHS 30 and the internship class CAHS 40W.

Our lab courses are taught in the department’s four kitchens: bake shop, quick service cafe, cafeteria, and fine dining restaurant. This program includes extensive hands-on training in the department’s facilities.

Students must complete an unpaid industry internship for which they earn class credit (CAHS 40W). Students secure these internships with the assistance of the Program Advisor.

In addition, business and management courses are also required to prepare students to be professionals in the culinary field.

General education courses (English, math, humanities, history, and diversity classes) are also required to fulfill A.S. degree requirements.

Note: Applicants who have already earned a college degree (A.S./A.A., B.A./B.S., etc.) are required to fulfill CCSF A.S. degree requirements.

Students should request an “Evaluation of Transfer Credit” after they are registered in classes and accepted to one of the CAHS degree programs.

Students are required to confer with the Program Advisor as to the specific classes necessary to complete their program and the order in which courses should be taken. Laboratory classes (CAHS 10, CAHS 10Q, CAHS 20, CAHS 30, CAHS 40W) are restricted to program majors.

Costs. In addition to the current applicable tuition, fees, books, and other such college expenses, students will need to purchase uniforms and kitchen tools at an approximate cost of $500.00 (a one time cost).

Admission and Applications. Prior to being admitted to Culinary Arts Management Program, applicants must complete the procedure for admission to City College of San Francisco.

When applicants have been admitted to the College, they must also complete the CAHS Department’s application form, which may be obtained at the CAHS office located at Statler Wing, Room 156, by calling the office at (415) 239-3152, or by printing the application from our website: www.ccsf.edu/cahs and mailing it in.

Completed applications must be submitted by the second Monday in November for the following Spring semester and by the second Monday in April for the following Fall semester (unless these dates are displaced by a holiday). Applicants should call (415) 239-3152 for the exact deadline dates for each semester.

Pre-requisites:
- Applicants must have completed ESL 140 or placed in ESL 150 or higher; or completed English 90 or 91 and/or placement into English 92 or higher, based on the CCSF ESL and English placement tests. Or completed English 1A or the equivalent.
- A 2.0 grade point average on prior college or high school transcripts is advised.
- Applicants must be in good physical and mental health.

Programs Probation. (See the Program Probation Policy above)

Culinary Arts Management Major (AS)

Students may earn an Associate in Science Degree and an Award of Achievement with a concentration in Culinary Arts. These classes are offered every semester and should be taken with A.S. degree requirements.

Courses Required for the Major in Culinary Arts

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHS 100 Introduction to Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 10 Culinary Fundamentals I</td>
<td></td>
</tr>
<tr>
<td>or CAHS 10Q Culinary Fundamentals I</td>
<td>5</td>
</tr>
<tr>
<td>CAHS 20 Quantity Food Prep and Supervision</td>
<td>5</td>
</tr>
<tr>
<td>CAHS 30 Restaurant Operations</td>
<td></td>
</tr>
<tr>
<td>CAHS 40W Field Work *</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 21 Meat Analysis</td>
<td>2</td>
</tr>
<tr>
<td>MB 5I Sanitation Principles and Practices</td>
<td>1</td>
</tr>
<tr>
<td>SPCH 11 Basic Public Speaking</td>
<td></td>
</tr>
<tr>
<td>or SPCH 1A Elements of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 5I Nutrition and Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>LBCS 96C Labor Relations in the Modern American Workplace</td>
<td></td>
</tr>
<tr>
<td>CAHS 33 Procurement and Costing</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 42 H &amp; R Accounting</td>
<td></td>
</tr>
<tr>
<td>or ACCT 1 Financial Accounting</td>
<td>3–4</td>
</tr>
<tr>
<td>CAHS 44 Supervisory Development</td>
<td></td>
</tr>
<tr>
<td>or SUVP 231 Intro to Super/Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 10 (or 10Q), 20, 30 and 40W must be taken in sequence.</td>
<td></td>
</tr>
</tbody>
</table>

* To be taken in students final semester and by consent of instructor.

Note: You must complete 12 units of A.S. degree requirements before continuing to the 2nd year.

PLUS: Students are required to take 3 units of the following courses:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHS 24 Specialty Baking and Decorating</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 60A Sous Vide Cooking</td>
<td>1</td>
</tr>
<tr>
<td>CAHS 60B Classic and Modern Sauces</td>
<td></td>
</tr>
<tr>
<td>CAHS 60C Molecular Gastronomy</td>
<td>1</td>
</tr>
<tr>
<td>CAHS 60D Pantry and Cold Kitchen</td>
<td>1</td>
</tr>
<tr>
<td>CAHS 60E Charcuterie, Forecemeats, and Pates</td>
<td>1</td>
</tr>
<tr>
<td>CAHS 60F Carving</td>
<td>1</td>
</tr>
<tr>
<td>CAHS 203 Advanced A la Minute Cooking</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units .................................................................. 44-45

Recommended Electives:

Recommended culinary program courses: (evening classes lecture-demonstration)

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHS 207 Techniques of Healthy Cooking</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 206 Ethnic Cuisines</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 202 Adv Pastry Baking and Decorating</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 205 Intro to Wine and Its Sensory Eval</td>
<td>3</td>
</tr>
</tbody>
</table>

Food Service Management Program

Introduction. The major in Food Service Management is offered to prepare students who are interested in a food related career in the “front of the house” – but NOT in the kitchen. This program focuses on food service management, such as restaurant management, catering management, banquet management, purchasing, etc.

This is a two year, four semester course of study and is a rigorous, full time, day program. Students are advised to be well prepared to commit themselves to being in school 8 hours per day, 5 days a week for the duration of the Program. Students who are entering college for the first time usually take five or more semesters to complete the Program.

Accreditation. The Food Service Management Program is accredited by The American Culinary Federation. Upon completion of their A.S. degree major, students will also be awarded a Certificate of Completion from the Accrediting Commission of the American Culinary Federation (ACF).
Course of Study. All students must take a core group of courses which includes one semester in the kitchen and the following semesters emphasize front of the house service and management. Students in the Food Service Management Program must take sequential laboratory courses in food preparation, service and management; CAHS 10 or CAHS 10Q, CAHS 208, CAHS 30 and the internship class CAHS 40W. This program includes extensive hands-on training in the department’s facilities. Our lab courses are taught in the department’s four kitchens, bake shop, quick service cafe, cafeteria, and fine dining restaurants. CAHS 208 is held at the Educated Palate restaurant at the CCSF Downtown campus. All other classes may be taken at the Ocean/Phelan campus.

Students must complete an unpaid industry internship for which they earn class credit (CAHS 40W). Students secure these internships with the assistance of the Program Advisor.

Note: The first semester of this program requires the same classes as the first semester of the Culinary Arts Program.

General education courses (English, math, humanities, history, and diversity classes) are also required to fulfill a.s. degree requirements.

Note: Applicants who have already earned a college degree (A.S./A.A., B.A./B.S., etc.) are required to fulfill CCSF A.S. degree requirements. Students should request an “Evaluation of Transfer Credit” after they are registered in classes and accepted to one of the CAHS degree programs.

Students are required to confer with the Program Advisor as to the specific classes necessary to complete their program and the order in which courses should be taken. Laboratory classes (CAHS 10, CAHS 10Q, CAHS 208, CAHS 30, CAHS 40W) are restricted to program majors.

Costs. In addition to the current applicable tuition, fees, books, and other such college expenses, students will need to purchase uniforms and kitchen tools at an approximate cost of $500.00 (a one time cost).

Admission and Applications. Prior to being admitted to Food Service Management Program, applicants must complete the procedure for admission to City College of San Francisco.

When applicants have been admitted to the College, they must also complete the CAHS Department’s application form, which may be obtained at the CAHS office located at Statler Wing, Room 156, by calling the office at (415) 239-3152, or by printing the application from our website: www.ccsf.edu/cahs and mailing it in.

Completed applications must be submitted by the second Monday in November for the following Spring semester and by the second Monday in April for the following Fall semester (unless these dates are displaced by a holiday). Applicants may call (415) 239-3152 for the exact deadline dates for each semester.

Pre-requisites:
• Applicants must have completed ESL 140 or placed in ESL 150 or higher; or completed English 90 or 91 and/or placement into English 92 or higher, based on the CCSF ESL and English placement tests. Or students must have completed English 1A or the equivalent.
• A 2.0 grade point average on prior college or high school transcripts is advised.
• Applicants must be in good physical and mental health.

Program Probation. (See the Program Probation Policy above)

Food Service Management Major (AS)

Students may earn an Associate in Science Degree with a major in Food Service Management. These classes should be taken with A.S. degree requirements.

Courses Required for the Major in Food Service Management

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHS 100 Introduction to Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 10 Culinary Fundamentals I</td>
<td>5</td>
</tr>
<tr>
<td>CAHS 10Q Culinary Fundamentals I</td>
<td>5</td>
</tr>
<tr>
<td>CAHS 30 Restaurant Operations</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 32 Hospitality Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 33 Procurement and Costing</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 34 Hospitality Law</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 40W Field Work</td>
<td>3</td>
</tr>
<tr>
<td>MB 51 Sanitation Principles and Practices</td>
<td>1</td>
</tr>
<tr>
<td>SPCH 11 Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or SPCH 1A Elements of Public Speaking</td>
<td></td>
</tr>
<tr>
<td>NUTR 51 Elementary Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>LBCS 96C Labor Relations in the</td>
<td></td>
</tr>
<tr>
<td>Modern American Workplace</td>
<td></td>
</tr>
<tr>
<td>CAHS 44 Supervisory Development</td>
<td>3</td>
</tr>
<tr>
<td>or UVSP 231 Intro to Super/Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 42 H&amp;R Accounting or ACCT 1 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 10 Introduction to Accounting</td>
<td>4</td>
</tr>
<tr>
<td>CAHS 205 Intro to Wine and Its Sensory Evaluation or</td>
<td></td>
</tr>
<tr>
<td>CAHS 222 Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 208 Catering and Events</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>47-48</td>
</tr>
</tbody>
</table>

* To be taken in students final semester and by consent of instructor.

Hotel Management Program

Introduction. Students may earn an Associate in Science with a major in Hotel Management. This major is limited to preparing students to work in the rooms division of a hotel or lodging facility. It does not prepare students for the Food and Beverage Department of a hotel nor a culinary career.

This program is designed to serve the needs of those who can only attend school part-time or for those who already have a strong food and beverage background and who do not wish to pursue a culinary or food related career. Students may attend the program part-time or full-time. Three (3) lab courses are required. All other classes are lectures.

Course of Study. Students are required to take all the classes listed in the Hotel Management Curriculum below along with requirements for an A.S. degree.

Classes for this program are held at three CCSF campuses: Ocean/Phelan campus, Southeast campus, and the Downtown campus. However, most of the classes are held at the CCSF Ocean/Phelan campus.

Students must complete an unpaid industry internship for which they earn college credit (CAHS 40W). Students secure these internships with the assistance of the Program Advisor.

General education courses (English, math, humanities, history, and diversity classes) are also required to fulfill A.S. degree requirements. Note: Applicants who have already earned a college degree (A.S./A.A., B.A./B.S., etc.) are required to fulfill CCSF A.S. degree requirements. Students should request an “Evaluation of Transfer Credit” after they are registered in classes and accepted to this program.
Students are required to confer with the Program Advisor as to the specific classes necessary to complete their program and the order in which courses should be taken.

Costs. In addition to the current applicable tuition, fees, books, and other such college expenses, students will need to purchase uniforms for the CAHS 208 Catering and Events class at an approximate cost of $100.

Admission and Applications.

Applications for the Hotel Management Program are accepted once a year for the Fall semester only. Prior to being admitted to Hotel Management Program, applicants must complete the procedure for admission to City College of San Francisco.

When applicants have been admitted to the College, they must also complete the CAHS Department's application form, which may be obtained at the CAHS Department office located at Statler Wing, Room 156, by calling the office at (415) 239-3152, or by printing the application from our website: www.ccsf.edu/cahs and mailing it in.

Completed applications must be submitted by the second Monday in November for the following Spring semester and by the second Monday in April for the following Fall semester (unless these dates are displaced by a holiday). Applicants may call (415) 239-3152 for the exact deadline dates for each semester.

Pre-requisites:

- Applicants must have completed ESL 140 or placed in ESL 150 or higher; or completed English 90 or 91 and/or placement into English 92 or higher, based on the CCSF ESL and English placement tests. Or students must have completed English 1A or the equivalent.
- A 2.0 grade point average on prior college or high school transcripts is advised.
- Applicants must be in good physical and mental health.

Program Probation. (see the Program Probation Policy above)

Hotel Management Major (AS)

Students may earn an Associate in Science Degree with a major in Hotel Management. These classes should be taken with a S. degree requirements.

Courses Required for the Major in Hotel Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHS 100 Introduction to Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 96C Labor Relations in the Modern American Workplace</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 35 Hotel Front Office Operations</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 233 Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 32 Hospitality Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BSEN 74 Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 208 Catering and Events</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 11 Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or SPCH 1A Elements of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 34 Hospitality Law</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 42 H&amp;R Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 1 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 10 Introduction to Accounting</td>
<td>3-4</td>
</tr>
<tr>
<td>CAHS 43 Principles of Hotel Administration</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 44 Supervisory Development</td>
<td>3</td>
</tr>
<tr>
<td>or SUPV 231 Intro to Super/Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 40W Field Work</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>43 - 44</strong></td>
</tr>
</tbody>
</table>

* This class is to be taken in the final semester of the program, with consent of the instructor.

Announcement of Courses

NOTE: Some lecture courses are not offered every semester. Consult the Time Schedule for the times these courses will be offered.

Credit, Degree Applicable Courses:

CAHS 10. Culinary Fundamentals I (5)

Lec-4, lab-20

Prereq.: Admission to the Culinary Arts and Hospitality Management Programs; ESL 140, or placement in ESL 150 or higher.

Fundamentals of commercial food preparation for hotels, restaurants and bakeries. Skills for handling of professional kitchen equipment, tools and machinery through practical application. Preparation of breakfast, salads, sandwiches, artisans breads, breakfast pastries, cookies, plated desserts, cakes pies and tarts. Practice of sanitation and safety techniques; kitchen terminology; mathematics related to recipe conversions and measurements; organizational skills, accuracy and speed; introduction to food and customer service, including set-up, serving and clean-up. CSU

CAHS 10Q. Culinary Fundamentals I (5)

Lec-4, lab-20

Prereq.: Admission to the Culinary Arts and Hospitality Program as a degree-candidate student; ESL 62 or 68 or 140, or placement in ESL 72 or 150 or higher.

Fundamentals of commercial food preparation for the hospitality industry. Skills for handling professional kitchen tolls and equipment through practical application. Preparation of various hot and cold savory dishes and various baked goods. Practice of food sanitation, safety techniques, kitchen mathematics and terminology, organizational skills, and introduction to customer service. CSU

CAHS 20. Culinary Fundamentals II (5)

Lec-4, lab-20

Prereq.: Admission to the Culinary Arts and Hospitality Program as a degree-candidate student; ESL 62 or 68 or 140, or placement in ESL 72 or 150 or higher.

Fundamentals of commercial food preparation for the hospitality industry. Skills for handling professional kitchen tolls and equipment through practical application. Preparation of various hot and cold savory dishes and various baked goods. Practice of food sanitation, safety techniques, kitchen mathematics and terminology, organizational skills, and introduction to customer service. CSU

CAHS 21. Meat Analysis (2)

Lec-2, field trips

Prereq.: ESL 140, or placement in ESL 150 or higher.

Advise: MATH E or EI or BSMA H or J

Advanced principles of food preparation and service. Emphasis is on classical French cooking and its foundation for modern styles of cuisine. Students will practice classical and modern cooking in a variety of dining outlets, employing all standard cooking techniques, producing various stocks and saucers, butchery and gardemanger. CSU

CAHS 24. Specialty Baking and Decorating (3)

Lec-3, field trips

Prereq.: ESL 62 or 68 or 140, or placement in ESL 150 or higher; CAHS 10 or 10Q, or demonstration of CAHS 10 or 10Q exit.
skills; and currently enrolled in the Culinary Arts and Hospitality Management Programs
Repeat: max. 6 units
Intended for CAHMP degree-candidate students and culinary professionals.
Special instruction in the finer arts of baking and pastry preparation and decoration, as related to food service in deluxe hotels and restaurants. Procedures and recipes in French pastries, candy making, petits fours, cake design and decoration, including gumpaste work and decoration of seasonal and wedding cakes. How to organize and staff, tools, equipment and materials for baking preparation. Use of tools and cooking techniques are demonstrated. Evaluation of items prepared in class is done at each session. CSU

CAHS 25. Advanced Food Preparation Specialties (3)
Lec-3, field trips
Prereq.: CAHS 10 or 10Q and 20, and currently enrolled in the Culinary Arts and Hospitality Management Programs
Repeat: max. 6 units
Intended for CAHMP degree-candidate students and culinary professionals.
Special instruction in the finer art of food preparation as related to food service in deluxe hotels and restaurants. Methods, preparation and service of beef, veal, lamb, pork, poultry, wild game, fish, shellfish, mollusks, vegetables, pastas and related sauces and stocks. How to organize staff, tools, equipment and materials for food preparation. Use of tools and cooking techniques are demonstrated. Items prepared in class are evaluated at each session. CSU

CAHS 30. Restaurant Operations (5)
Lec-5, lab-15
Prereq.: CAHS 20
This course focuses on front-of-house operation such as food and beverage service, management, equipment/technologies and customer service for restaurants, cafeterias and quick service business models. A key component of the course is intensive hands-on training in the three college food service outlets: The cafeteria, quick service outlet and fine dining restaurant. CSU

CAHS 32. Hospitality Marketing (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
Fundamentals of marketing in the hospitality industry, including research, sales, advertising, public relations, and other concepts related to hospitality marketing. CSU

CAHS 33. Procurement and Costing (3)
Lec-3, field trips
Prereq.: ESL 140, or placement in ESL 150 or higher
A study of the best practices for the sourcing, procurement, and costing of products, equipment, and services for use in the foodservice industry. CSU

CAHS 34. Hospitality Law (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
An in-depth study of the law as it pertains to hotels, restaurants, bars, and private clubs. Emphasis on innkeeper/guest relationship, food service liability, responsible alcoholic beverage service, employment law, compliance with Americans with Disabilities Act and civil rights acts, and building, health, and safety codes. CSU

CAHS 35. Hotel Front Office Operations (3)
Lec-1, lab-6, field trips
Prereq.: ESL 140, or placement in ESL 150 or higher
A general overview of the hotel industry followed by in-depth instruction in the operations of an automated hotel front office including reservations, guest registration and check out, cashiering, and night audit. Each student will learn to perform tasks on a PC-based, state-of-the-art hotel Property Management System. Includes role-playing, extensive use of videos, and resume preparation and interviewing technique instruction. CSU

CAHS 40W. Work Experience (3)
Lec-1, work-15
Prereq.: Evidence of passing a CA Food Safety Manager Certification Exam administered by an accredited food protection manager certification organization (e.g. ServSafe or National Registry of Food Safety Professionals) per SB 602 & CA Health & Safety Code
Off campus laboratory training in hotels, restaurants and other allied areas. This course is designed to provide practical experience in the branch of the industry to which the student shows to be best adapted or in which the student desires additional training beyond that given in prior classes. CSU

CAHS 42. Hotel and Restaurant Accounting (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
Principles of hotel and restaurant accounting, including the meaning and purposes of accounting, journalizing, periodic adjustments and formal statements. Emphasis on analysis of financial statements to be used as practical tools in making decisions in the operation of hotels and restaurants. CSU

CAHS 43. Principles of Hotel Administration (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
The physical aspects of hotel operations, including development, classification, and organization. Procedures for emergencies, check cashing, use of credit cards, and collection of accounts receivable. Protection of hotel property against damage and theft by guests. Fundamentals of taxes, leases, and insurance as they apply to the hotel and restaurant industry. CSU

CAHS 44. Supervisory Development (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
A practical approach to the understanding of supervision and management. The role of the supervisor/manager within the organization and the greater community. Principles of supervision, correction and improvement; conflict and cooperation; communication, responsibilities of the labor management team within the organization and the community. Case studies of personnel and general human relations problems in the hospitality industry. CSU

CAHS 51-52-53. Selected Topics in the Hospitality Industry (1-2-3)
Lec-1,2,3, field trips
Repeat: if no subject repeat
Investigation in-depth of selected topics in the hospitality industry. Current issues and innovations; expansion of subjects covered in introductory courses and exploration of new topics. CSU
CAHS 60. Selected Topics in Culinary Arts (1-2-3)
Lec-1, 2, 3
Prereq.: ESL 140 or ENGL 90 or ENGL 91 or placement in ESL 150 or ENGL 92; and CAHS 10 or 10Q; and CAHS 20
In-depth investigation of selected topics in the culinary field. Current innovations and trends in the culinary field; expansion of subjects covered in introductory courses and exploration of new topics. CSU

CAHS 60A. Sous Vide Cooking (1)
CAHS 60B. Classic & Modern Sauces (1)
CAHS 60C. Molecular Gastronomy (1)
CAHS 60D. Pantry and Cold Kitchen (1)
CAHS 60E. Charcuterie, Forcemeats, and Pates (1)
CAHS 60F. Carving (1)

CAHS 100. Introduction to Hospitality (3)
Lec-3
Prereq.: ESL 140 or ENGL 90 or ENGL 91 or placement in ESL 150 or ENGL 92
A comprehensive examination of the hospitality industry, including hotels, restaurants, clubs, and the travel and tourism sectors. Emphasis on organizational structures, departments, job classifications, and career paths within each sector. Lecture and discussions are enhanced by industry guest speakers and industry visits. CSU

Evening Courses
The following courses are offered only in the evening and may not be offered each semester. Consult the Class Schedule for the times these courses will be offered.

CAHS 201. Garde Manger (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
Repeat: max. 6 units
Intended for CAHS degree-candidate students and culinary professionals. Introduction to fancy culinary work; hot and cold hors d’oeuvre, pates, gelatines, terrines, tallow work, ice-carvings and decorated show platters. Use of proper tools and equipment. Class focuses on how to organize, staff, tools, equipment, and materials for food preparation in hotels, restaurants and catering operations. Use of tools and cooking techniques are demonstrated. Evaluation of items prepared in class is done at each session. CSU

CAHS 202. Advanced Pastry Baking and Decorating (3)
Lec-3
Prereq.: ESL 140, or placement in 150 or higher
Intended for CAHS degree-candidate students and culinary professionals. Special instruction in the finer arts of baking and pastry preparation and decoration as related to food service in deluxe hotels and restaurants. Procedure and recipes in French pastries, candy making, petit fours, cake design and decoration, including gum paste work and decoration of seasonal and wedding cakes. How to organize, staff, tools, equipment and materials for baking preparation. Use of tools and cooking techniques are demonstrated. Items prepared in class are evaluated at each session. CSU

CAHS 203. Advanced A la Minute Cooking (4)
Lec-1, lab-9
Prereq.: ESL 140, or placement in ESL 150 or higher
Repeat: max. 6 units
Intended for CAHS degree-candidate students and culinary professionals. Food preparation and methods of cooking and serving at the state-of-the-art CCSF Downtown Campus restaurant. Students will practice advanced methods of food preparation and service under conditions, which simulate a restaurant environment. CSU

CAHS 205. Introduction to Wine and Its Sensory Evaluation (3)
Lec-3
Prereq.: Minimum age of 21; ESL 140, or placement in ESL 150 or higher
Intended for CAHS degree-candidate students and culinary professionals. An introduction to the history, geography, production, and the methods of sensory evaluation of wine; emphasis on the grape varietals and wine types produced and/or consumed in the United States. CSU

CAHS 206. Ethnic Cuisines (3)
Lec-3, field trips
Prereq.: ESL 140, or placement in ESL 150 or higher
Intended for CAHS degree-candidate students and culinary professionals. Special attention paid to health problems associated with the “typical” American diet, the various food guide pyramids, comparing and contrasting cultural diets, moderate daily guidelines, and the search for an optimal diet. CSU

CAHS 207. Techniques of Healthy Cooking (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
Intended for CAHS degree-candidate students and culinary professionals. An advanced culinary course that familiarizes the student with one or more major cuisines of Asia, the Mediterranean, and Latin American; will explore history of basic ingredients, cooking methods, terminology of cuisine. CSU

CAHS 208. Catering and Events (4)
Lec-3, lab-5, field trips
Prereq.: ESL 62 or 68 or 140, or placement in ESL 150 or higher
Intended for CAHS degree-candidate students and culinary professionals. Aspects of on-premise and off-premise catering. Includes five, unique catered events planned, prepared and staffed by students, such as banquets, barbecues, movable feasts, coffee breaks, dinner theater, theme parties, and tea parties. CSU

CAHS 209. Restaurant Analysis (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
Intended for CAHS degree-candidate students and culinary professionals. The theoretical and practical foundations necessary to start a new restaurant, purchase an existing restaurant, or enter into a restaurant operating lease or management contract. Targeted to final year students in the Hotel and Restaurant Department’s Foodservice Management track and to industry professionals. CSU

CAHS 221. Meat Analysis (2)
Lec-2
Prereq.: ESL 140, or placement in ESL 150 or higher
The fabrication of beef, pork, veal, and lamb. Proper cuts and their uses. Recognition of the quality of meat. Knowledge necessary for proper purchasing of meats in order to maintain the desired percentage of profit in restaurant operation. CSU

CAHS 242. Hotel and Restaurant Accounting (3)
Lec-3
Prereq.: ESL 140, or placement in ESL 150 or higher
Principles of hotel and restaurant accounting, including the meaning and purposes of accounting, journalizing, periodic adjustments and
formal statements. Emphasis on analysis of financial statements to be used as practical tools in making decisions in the operation of hotels and restaurants. CSU

CAHS 243. Principles of Hotel Administration (3)
Lec-3
Prereq.: ESL 140, or Placement in ESL 150 or higher
The physical aspects of hotel operations, including development, classification, and organization. Procedures for emergencies, check cashing, use of credit cards, and collection of accounts receivable. Protection of hotel property against damage and theft by guests. Fundamentals of taxes, leases, and insurance as they apply to the hotel and restaurant industry. CSU

CAHS 244. Foods and Fitness (3)
Lec-3, lab-1, field trips P/NP available
Survey of nutrient needs in different stages of the life cycle. Includes food and meal patterns appropriate for specialized dietary needs. Current controversies surrounding common health problems and dietary interrelationships. Analysis of weight control dietary regimes, nutritional assessment of individual’s food intake. Evaluation of nutritional needs in relationship to various athletic sports and fitness and necessary diet food modifications. CSU

CAHS 245. Food Study I (3)
Lec-2, lab-3, field trips
Repeat: max. 6 units
Elementary food preparation methods and techniques. Emphasis on cost effective seasonal food selection, purchasing, and nutritious meal planning; food storage; preservation concepts; elementary nutrition. Skills necessary for prevention and correction of cooking errors. Full student laboratory participation. CSU

CAHS 246. Food Study II (3)
Lec-2, lab-3
Repeat: max. 4 units
Special occasion food planning and preparation. Principles and procedures involved in food selection, preparation, and storage; use of specialized cooking equipment; attractive presentations and table service. Full student food preparation. CSU

CAHS 247. Food and Culture (2)
Lec-1, lab-3, field trips
Repeat: max. 4 units
This course may be offered through International Education in various countries. Study of the cuisine of various cultures; food in relation to historical, geographical, and social customs; principles of international food preparation and evaluation of equipment used. Full student food preparation. CSU/UC

LBCS 96C. Labor Relations in the Modern American Workplace (3)
Lec-3, field trips P/NP available
A study of labor relations in contemporary society, including their history, present status and current issues. Topics will include patterns of business ownership, the structure of the workplace, the changing work force, management practices, unionization, workers’ rights and current developments. A thorough analysis of labor relations as they affect the economy, society and culture. CSU

Culinary and Service Skills Training Noncredit Certificate

Introduction. The CSST program provides short-term culinary and service skills training for entry into the labor market. While generally designed for those interested in attaining a certificate, these classes also work well for professionals interested in refining their skills as well as non-professionals who are not certificate candidates.

Program Advisory. Strong verbal and written skills, and the ability to lift 50 pounds. Classes are taught through a combination of lecture and hands-on training in the Educated Palate restaurant. Each certificate requires two semesters (approximately nine months) of training. These courses prepare students for entry-level work in restaurant and hotel kitchens and dining rooms.

Student Learning Outcomes.

Students will be able to demonstrate foundational knowledge and technical skills required for success in the culinary and hospitality industry.

Admissions. Procedures for noncredit enrollment CSST Program:

a. File a CCSF non-credit student application either online or at the Downtown campus.
b. Meet with a Downtown campus counselor for CSST Program information, placement test dates, and instructions on how to enroll.
c. Take the following placement tests (if you have not yet taken any ESL or TRST courses):
   • Non credit English (CASAS) or Non credit ESL, and
   • Non credit math test (CASAS)
   CASAS testing is available at Downtown, John Adams, and Southeast campuses. Non credit ESL testing is available at all City College campuses except Southeast and Evans. The following link can be used to find the noncredit testing schedule: http://www.ccsf.edu/NEW/en/future-students/future_noncredit-students.html
d. Bring testing information to Downtown campus counselor to receive enrollment instructions.
e. CSST Program enrollment will begin the first day of non-credit enrollment.

Length of Program. Two semesters (1,020 hours)

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSST 9660 Food Tech &amp; Dining Service-Section I</td>
<td>510</td>
</tr>
<tr>
<td>CSST 9661 Food Tech &amp; Dining Service-Section II</td>
<td>510</td>
</tr>
<tr>
<td>Total Hours</td>
<td>1,020</td>
</tr>
</tbody>
</table>

Requirements for the Certificate of Completion. A certificate will be awarded after successful completion of both courses with the grade of “C” or better and a minimum of 80% attendance.

Baking and Pastry Noncredit Certificate

Length of Program. Two semesters (1,020 hours)

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSST 9650 Introduction to Baking Pastry</td>
<td>510</td>
</tr>
<tr>
<td>CSST 9651 Advanced Baking and Pastry</td>
<td>510</td>
</tr>
<tr>
<td>Total Hours</td>
<td>1,020</td>
</tr>
</tbody>
</table>

Requirements for the Certificate of Completion. A certificate will be awarded after successful completion of both courses with the grade of
“C” or better and a minimum of 80% attendance.

**Student Learning Outcome.** Students will be able to demonstrate the ability to work in a professional bakery.

### Announcement of Courses

#### Non-Credit Courses:

**Culinary and Service Skills Training**

**CSST 9650. Introduction to Baking and Pastry**

Prereq.: CSST 9650  
Students will develop the skills necessary for an entry-level position in the baking and pastry industry. Topics include: safety and sanitation, bakeshop terminology, proper use of equipment, weights and measures, ingredients and their functions, baker’s math, baking methods and the development of basic skills. Students learn through a combination of lecture, demonstrations and extensive hands-on practice producing breads, pastries and desserts for our student-run restaurant, and adjoining coffee shop.

**CSST 9651. Advanced Baking and Pastry**

Prereq.: CSST 9650  
Students will develop and improve upon the basic skills and common techniques used in the baking and pastry industry. Topics include: meringues, petit fours and miniatures, mousses and Bavarians, frozen desserts, chocolate and candy, fancy and display cakes, yeast-raised products using preferments, hydrocolloids, bakers’ math, troubleshooting.

**CSST 9660. Food Tech & Dining Service-Section I**

This is the first course of a two semester sequence focusing on dining room operations which provides students with the basic skills required for entry-level work in professional restaurant service and operations. A key component of the course is intensive hands-on training in the Educated Palate restaurant.

**CSST 9661. Food Tech & Dining Service-Section II**

This is the second course of a two semester sequence leading to a certificate in Food Technology and Dining Services. The course provides students with the basic skills required for entry-level work in professional kitchens. The curriculum includes intensive hands-on training providing food for the Educated Palate Restaurant, demonstrations, readings and lectures on a variety of culinary topics.

### Culinary Arts Basic Training

**CABT 9000. Introduction to Culinary Fundamentals**

Prereq.: Completion of ESLN 3600 or placement into ESLN 3700. Completion of TRST level 2 math and reading/writing; or placement into TRST level 3 math and reading/writing. Introduction to kitchen basics, such as equipment use, safety, and sanitation. In addition, this course focuses on culinary fundamentals such as knife skills, classic cooking methods and preparation, vocabulary and basic kitchen math.

For more information about our noncredit program, please call: 415.267.6555
1. Be in good physical and mental health.
2. Eligibility for admission to CCSF. (See in this catalog the Admission to College - Admission open to individuals 18 years of age or older, high school graduates and others).
3. Complete the Program’s application and health history forms and submit to the Dental Assisting Program’s office.
4. For the two year program, the student must complete ENGL 90 or ESL 150, and BIO 9 or higher. In addition, students must satisfy the keyboard requirement of 45 wpm. This requirement may be met by successfully completing a computer or typing class, or a typing test can be administered at the Program’s office. The course for the typing skill does not need to be met at college level. Proof of successful completion of a computer or typing class will be acceptable on any level. These classes may be taken concurrently with the Dental Assisting classes.

**Advanced Placement.** Applicants who have been admitted to the curriculum and who have previous education or experience in dental assisting may apply for credit and advanced placement in the curriculum. However, such applicants should first have completed the science, English and keyboard requirements.

**Bases for Disqualification.** Students who receive a final grade lower than C in any dental assisting course will be disqualified from continuing in the curriculum. Students who receive a final grade lower than C will be permitted to repeat a course only once and must achieve a grade of C at all evaluation periods. Students who repeat a course and who do not achieve a grade of C at an evaluation period will be disqualified from continuing in the curriculum. Students may also be disqualified for safety and other reasons consistent with College policy.

**Major in Dental Assisting.** Students who have satisfied the requirements for graduation from the College and who have completed the curriculum will receive the Major in Dental Assisting.

**Eligibility for the Certification Examination and CA Licensure Examinations (RDA).** Graduates who receive a Major or a Certificate of Achievement are eligible to take the Certification Examination given by the Dental Assisting National Board and the Licensure Examinations to become a Registered Dental Assistant given by the California Board of Dentistry.

**Courses Required for the Major in Dental Assisting**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>DENT 51 Applied Dental Science I</td>
<td>4</td>
</tr>
<tr>
<td>DENT 55A Dent Roentgenography</td>
<td>2</td>
</tr>
<tr>
<td>DENT 62 Dent Assisting in Practice</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>DENT 55B Dental Roentgenography</td>
<td>2</td>
</tr>
<tr>
<td>DENT 57 Dental Office Management</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>DENT 52 Dental Materials and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>DENT 53 Intro to Chairside Assist</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>DENT 54 Appl Dental Sciences</td>
<td>2</td>
</tr>
<tr>
<td>DENT 67 Advanced Dental Procedures</td>
<td>4</td>
</tr>
<tr>
<td>DENT 70 Clinical Chairside Assist</td>
<td>7</td>
</tr>
<tr>
<td>DENT 110A Coronal Polish</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Certificate Curriculum**

The program of study for the Certificate of Achievement in Dental Assisting is designed to prepare students to take the licensing examination to be a Registered Dental Assistant as administered by the California Board of Dentistry and also to take the national certification examination to be a Certified Dental Assistant as administered by the Dental Assisting National Board. This course can be completed in two semesters (after completing prerequisites).

**Accreditation.** The curriculum is accredited by the Commission on Dental Accreditation of the American Dental Association and is approved by the Board of Dental Examiners, Department of Consumer Affairs, State of California.

**Information Regarding Admission.** Requests concerning admission should be addressed as follows: Department Chair, Dental Assisting, Box C-352, City College of San Francisco, 50 Phelan Avenue, San Francisco, California 94112.

**Consideration for Admission to the Curriculum.** The curriculum in Dental Assisting is open to all interested students who fulfill the following requirements:

1. Be in good physical and mental health.
2. Eligibility for admission to CCSF. (See in this catalog the Admission to College - Admission open to individuals 18 years of age or older, high school graduates and others).
3. File with the Office of Admissions and Records a completed application for admission to City College (for dates, see in this catalog the “Calendar of Instruction”). Students must also complete the Program’s application and health history forms and submit to the Dental Assisting Program’s office.

4. For the one year program, the student must have completed ENGL 90 or ESL 150 or higher, and BIO 9 or higher. In addition, students must satisfy the keyboard requirement of 45 wpm. This requirement may be met by successfully completing a computer or typing class, or a typing test can be administered at the Program’s office. The course for the typing skill does not need to be met at college level. Proof of successful completion of a computer or typing class will be acceptable on any level.

**Advanced Placement.** Applicants who have been admitted to the curriculum and who have previous education or experience in dental assisting may apply for credit and advanced placement in the curriculum. However, such applicants should first have completed the science, English and keyboard requirements.

**Basis for Disqualification.** Students who receive a final grade lower than C in any dental assisting course will be disqualified from continuing in the curriculum. Students who receive a final grade lower than C will be permitted to repeat a course only once and must achieve a grade of C at all evaluation periods. Students who repeat a course and who do not achieve a grade of C at an evaluation period will be disqualified from continuing in the curriculum. Students may also be disqualified for safety and other reasons consistent with College policy.

**Eligibility for the Certification Examination and Licensure Examinations.** Graduates who complete the Major or the Certificate of Achievement in Dental Assisting are eligible to take the Certification Examination given by the Dental Assisting National Board and the Licensure Examinations to become a Registered Dental Assistant given by the California Board of Dentistry.
Dental Assisting Certificate

Students may obtain the Certificate of Achievement in Dental Assisting by completing the following courses with an average final grade of C or higher:

Courses Required for the Certificate of Achievement in Dental Assisting

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT 51 App Dental Sciences I</td>
<td>4</td>
</tr>
<tr>
<td>DENT 52 Dental Materials and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>DENT 53 Intro to Chairside Assisting</td>
<td>3</td>
</tr>
<tr>
<td>DENT 55A Dent Roentgenography</td>
<td>2</td>
</tr>
<tr>
<td>DENT 62 The Dental Assistant in Practice</td>
<td>3</td>
</tr>
<tr>
<td>DENT 54 Applied Dental Science II</td>
<td>2</td>
</tr>
<tr>
<td>DENT 55B Dent Roentgenography</td>
<td>2</td>
</tr>
<tr>
<td>DENT 57 Dent Office Management</td>
<td>3</td>
</tr>
<tr>
<td>DENT 67 Adv Dental Procedures</td>
<td>4</td>
</tr>
<tr>
<td>DENT 70 Clinical Chairside Assisting</td>
<td>7</td>
</tr>
<tr>
<td>DENT 110A Coronal Polish</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Units</td>
<td>33.5</td>
</tr>
</tbody>
</table>

Credit Toward Graduation. All credit that students earn in obtaining the Certificate of Achievement in Dental Assisting may also be applied toward satisfaction of the requirements for graduation from the College.

Announcement of Courses

Credit, Degree Applicable Courses:

DENT 51. Applied Dental Science I (4)
Lec-3, lab-3
Coreq.: DENT 55A and 55B
Dental terminology, anatomy and physiology; mechanisms for transmitting disease and controlling/decreasing resistance to infection; oral embryology, histology and pathology; tooth morphology. Preliminary oral examination; charting conditions of the hard tissues; taking and recording vital signs and other tasks assigned to the Registered Dental Assistant. Methods and techniques of sterilization and disinfection. Infection control procedures and infectious disease process in the dental office. Lab Fee is required. CSU

DENT 52. Dental Materials and Procedures (3)
Lec-2, lab-3
Prereq.: Completion/concurrent enrollment in DENT 51 and 55A
Coreq.: DENT 53
The study of the materials and their safe handling that are employed in dentistry for the fabrication of dental appliances and tooth restorations and the manipulation of these materials. Introduction to intra-oral tasks delegated to the qualified registered dental assistant, which are related to operative dentistry such as bases, liners, facebow registration and provisional and permanent cements. Lab Fee is required. CSU

DENT 53. Introduction to Chairside Assisting (3)
Lec-2, lab-3
Prereq.: Completion/concurrent enrollment in DENT 51, 55A and 62
Coreq.: DENT 52
Instruction in the role of the chairside assistant, preparing the patient for dental treatment, positioning of the patient, operator and assistant for four-handed dentistry, preparation and placement of topical anesthetic agents, selection/preparation of local anesthetic agents, placement and removal of rubber dams, oral evacuation and retraction; instrument identification and grasps/transfers/triplex syringe/HVE usage, handpiece and equipment maintenance, hand and rotary instrument identification, placement and removal of matrix retainers, placement of sedative restorations. Amalgam, composite, fixed crown and bridge and endodontic instruments, tray set ups and procedures. Fabrication of aluminum and acrylic temporary crowns. Lab fee is required. CSU

DENT 54. Applied Dental Science II (2)
Lec-2
Prereq.: DENT 53, 55A, and 62
Coreq.: DENT 55B, 67, and 70
Experiences are provided to review the student's knowledge of microbiology, the mechanisms for transmitting disease, and controlling and decreasing resistance to infection. The rationale of preventive dentistry and practiced application of the skills necessary for a preventive/nutrition therapist are provided, including use of fluorides and tooth whitening products, the involvement of oral pathological conditions as related to the hard and soft tissues are discussed as well as developing the sources and effects of dental therapeutics and how they relate to dental office emergencies. The description and use of drugs and their use in dentistry. CSU

DENT 55A. Dental Roentgenography (2)
Lec-1, lab-3
Coreq.: DENT 51 and 62
Instruction in the basic principles of radiography, history, protection and safety guidelines. Physics and biological effects of radiation, for the patient's and operator's protection and comfort. Types of films and exposures on manikins. Processing and maintaining manual and automatic processors. Composition and preparation of solutions. The use in dentistry. CSU

DENT 55B. Dental Roentgenography (2)
Lec-1, lab-3, field trips
Prereq.: DENT 55A
Instruction in the advanced techniques of dental radiography, anatomical landmarks, dental anatomy pertaining to dental radiography, exposure and processing faults. Emphasis is on evaluation of the quality of the films both intra and extra oral. Experiences in exposing full mouth and bitewing radiographs for diagnosis by dentists. (Students must provide/recruit their patients) Advanced education and knowledge of panoramic and digital techniques and other related radiographic equipment. Lab Fee is required. CSU

DENT 57. Dental Office Management (3)
Lec-3
Prereq.: DENT 51, 55A, and 62
Coreq.: DENT 55B
Instruction in the non-clinical functions which dental auxiliaries are required to perform with emphasis on financial arrangements, collection techniques, insurance processing and maintenance of office records, account receivable transactions, office mail, inventory, purchasing, accounts payable, payroll, disbursements, tax records, marketing and group practice. Use of computers to perform basic dental office management. CSU
DENT 62. The Dental Assistant in Practice (3)
Lec-2, lab-3, field trips
Coreq.: DENT 51 and 55A
The dental health team, ethics/jurisprudence HIPAA, history of dentistry, home care instruction including whitening, applied psychology, communication skills; verbal and written (telephone/fax/computer) communication, the special patient, appointment control, recall systems and the administrative assistant, use of Dentrix and Eagle Soft software for office functions. Lab fee is required. CSU

DENT 67. Advanced Dental Procedures (4)
Lec-3, lab-3
Prereq.: DENT 51, 52, 53, 55A, and 62
Coreq.: DENT 54, 55B, 57 and 70
Instruction in the specialties of dentistry including advance endodontics, periodontics, orthodontics, oral surgery, removable prosthodontics and pediatric dentistry as well as the armamentarium required in each specialty. Development of preclinical skills in the extended functions which are required of the Registered Dental Assistant. Students are required to meet standards of competency for each required task including coronal polishing and ultrasonic removal of cement from orthodontic bands. Mannequins and patients will be used in instruction. Lab fee is required. CSU

DENT 70. Clinical Chairside Assisting (7)
Lec-33, lab-260.5 (total hrs.)
Prereq.: Certification of Cardio Pulmonary Resuscitation (CPR); Approved by American Heart Association or American Red Cross for Health Care Provider;
Coreq.: Completion/concurrent enrollment in DENT 54, 55B, 57 and 67
Clinical instruction and practice in four-handed procedures. Emphasis on general and specialty dentistry (oral surgery, periodontics, endodontics, orthodontics, prosthodontics) and the intra-oral tasks assigned to the Registered Dental Assistant. Development of professional attitude (ethics/jurisprudence) in dental assisting. Building skills in the use of dental materials and equipment. Evaluation of clinical experience, career placement opportunities, and skills building in communication, sealant placement (Students must provide/recruit their patients) in accordance with the CDB requirements, and the taking of a mock Registered Dental Assisting Practical Examination. Lab fee is required. CSU

DENT 110A. Coronal Polish (0.5)
Lec-6, lab-8 (14 total hrs.)
Repeat: max. 1.5 units
This course is designed and approved to meet the California Board of Dentistry's Requirement for Coronal Polish. This course includes lecture and clinical hours. The students will be taught and use techniques for removal from the clinical crown the following: pellicle, plaque, and extrinsic stain. The students will be required to provide their own patients and follow program's sterilization, and infection control policies. CSU

Disabled Students Courses
Office: Learning Resources 323
Phone Number: (415) 452-5481
Web Site: www.ccsf.edu/dspss

Announcement of Courses
General Information
It is recommended that students with disabilities meet with a DSPS counselor.

All courses that begin with DSPS are designed for, but not limited to, individuals with disabilities.

Title 5, Section 56029 of the California Code of Regulations allows DSPS students the option of repeating the following courses multiple times with the consent of the DSPS Department.

Credit, Degree Applicable Courses:
DSPS 1. Issues in Disabilities (3)
Lec-3
Prereq.: Certification of Cardio Pulmonary Resuscitation (CPR); Approved by American Heart Association or American Red Cross for Health Care Provider;
Coreq.: Completion/concurrent enrollment in DENT 54, 55B, 57 and 67
Clinical instruction and practice in four-handed procedures. Emphasis on general and specialty dentistry (oral surgery, periodontics, endodontics, orthodontics, prosthodontics) and the intra-oral tasks assigned to the Registered Dental Assistant. Development of professional attitude (ethics/jurisprudence) in dental assisting. Building skills in the use of dental materials and equipment. Evaluation of clinical experience, career placement opportunities, and skills building in communication, sealant placement (Students must provide/recruit their patients) in accordance with the CDB requirements, and the taking of a mock Registered Dental Assisting Practical Examination. Lab fee is required. CSU

Prereq.: Certification of Cardio Pulmonary Resuscitation (CPR); Approved by American Heart Association or American Red Cross for Health Care Provider;
Coreq.: Completion/concurrent enrollment in DENT 54, 55B, 57 and 67
Clinical instruction and practice in four-handed procedures. Emphasis on general and specialty dentistry (oral surgery, periodontics, endodontics, orthodontics, prosthodontics) and the intra-oral tasks assigned to the Registered Dental Assistant. Development of professional attitude (ethics/jurisprudence) in dental assisting. Building skills in the use of dental materials and equipment. Evaluation of clinical experience, career placement opportunities, and skills building in communication, sealant placement (Students must provide/recruit their patients) in accordance with the CDB requirements, and the taking of a mock Registered Dental Assisting Practical Examination. Lab fee is required. CSU

D P E 278. Personal Defense and Safety Awareness (1)
Lab-2
Repeat: max. 4 units
Assault prevention and personal defense skills designed to increase safety awareness. Basic physical defense skills are taught with an emphasis on streetwise safety strategies and the psychology of assault prevention. CSU/UC

Credit, Non-Degree Applicable Courses:
Title 5, Section 56029 of the California Code of Regulations allows DSPS students the option of repeating the following courses multiple times with the consent of the DSPS Department.

DSPS M. Diagnostic Learning (2)
Lec-1, lab-3
Prereq.: Certification of Cardio Pulmonary Resuscitation (CPR); Approved by American Heart Association or American Red Cross for Health Care Provider;
Coreq.: Enrollment in at least one other CCSF course
Not open to students who have completed LERN M.
An individualized course designed for students who have a documented disability but open to all students, similar in content to DSPS0 except that DSPS M is designed for those students who have support and intervention needs which require more intensive daily assistance in one or more major skill areas or classes in a particular semester.

DSPS O. Diagnostic Learning (1)
Lab-3
Prereq.: Certification of Cardio Pulmonary Resuscitation (CPR); Approved by American Heart Association or American Red Cross for Health Care Provider;
Coreq.: Enrollment in at least one other CCSF course
Students who have completed LERN O may not enroll in DSPS O.
An individualized course designed for students with cognitive disabilities, but open to all students. Focus is on instruction and practice of learning strategies related to support needed for one to two current CCSF classes. Students are assisted in using compensation strategies to use on assignments from their classes.
**Disabled Students Courses**

**DSPS P. Perspectives on Disability Rights (1)**
Lec-2 (9 wks)  
P/NP only  
*Students who have completed LERN P may not enroll in DSPS P.*
Disability, education, and employment rights. Acquire skills to understand rights and obligations to accommodations as provided under The Americans with Disabilities Act (ADA) and Section 504 of the Vocational Rehabilitation Act of 1973. Students with disabilities develop self-management and self-advocacy skills related to their accommodation rights and learn more about recent legislation related to disability rights.

**DSPS Q. Main Idea Strategies for Reading and Writing (1)**
Lec-2 (9 wks)  
P/NP only  
Designed specifically for students with learning disabilities who are in English L, 90/91, 92, 93, 94, 96, or ESL 130, 140, 150, 160, or any student in content courses involving reading and writing who wants to improve his or her reading comprehension skills and basic written expression skills. Examination of the prerequisite language and reasoning skills necessary for identifying the main idea in addition to textbook reading study skills.

**DSPS S. Strategies for Problem Solving (2)**
Lec-2 (9 wks)  
P/NP only  
Develop and practice creative and analytical thinking and problem-solving strategies for academic and personal growth. Strategies include task analysis, information processing, memory strategies, mind-body awareness, creative problem-solving, etc. Designed for students with learning disabilities but open to all students.

**DSPS W. Survival Writing Skills (1.5)**
Lec-1, lab-1.5  
P/NP only  
*Advise: Completion of ENGL 90 or 91 or ESL 140; or placement in ENGL 92 or ESL 150*  
Repeat: max. 6 units  
Introduction to and practice in using scaffolding and structured formats for essential personal and job-related survival writing for basic academic (expository writing principles, writing effective summaries), employment (job application short answers, cover letters, emails, etc.), and personal (business and private correspondence) applications. Practical writing forms in real-life situations are emphasized.

**Noncredit Courses**

**DSPS 4014. Arts and Crafts for the Disabled**
Arts and crafts for all disabilities. Introduces basic art concepts and crafts skills. Students create projects using materials and processes increasingly more challenging as the course progresses and their abilities permit. Adaptive equipment and techniques introduced as needed.

**DSPS 4017. Drama for the Disabled**
Developmentally and physically disabled students learn to explore and develop abilities in creative self-expression. Through participation in a variety of dramatic experiences, students develop their communication skills, increase coordination and sensor-motor communication skills and learn to function as group members. Process may lead to dramatic productions.

**DSPS 4022. Computer Skills – Disabled (180 hrs)**
Introduction to microcomputer applications for disabled students who desire entry-level clerical work. Introduces word processing, spreadsheet and database concepts using popular business software through lecture, lab and individualized instruction. Students create, edit, manipulate and print their own documents. May include the use of adaptive equipment such as screen enlargement or voice output.

**DSPS 4023. Job Search Skills, Disabled Lab**
Students with disabilities who are unable to benefit from a regular vocational program meet in small group workshops for one to ten hours per week. Hours and times are based on Student Educational Contact (SEC). Appropriate assistance is given in developing attitudes, self-confidence, and vocational competencies to locate, secure and retain employment. Field experiences with local employers, job training groups, and local organizations may be required.

**DSPS 4028. Coping with Acquired Brain Injury (108 hrs)**
Students with a mild acquired brain injury learn about the impact of brain injuries on learning, relationships, and emotions. Strategies to improve memory, organization, planning, reasoning, and communication are presented. Activities involve following directions, problem-solving, time management, verbal and written skills.

**DSPS 4031. Program for Learning Disabled (18-180 hrs)**
Academic instruction is provided for students with learning and other cognitive disabilities but is open to all students. Designed to help students achieve their maximum performance in order to succeed on the job and in educational settings. Small group instruction is provided in math, reading, writing, and spelling according to each student's educational contract (SEC).

**DSPS 4033. Stroke-Communication (45-54 hrs)**
For students experiencing receptive and/or expressive language difficulty (aphasia) resulting from a stroke or other acquired brain impairment. Class focuses on improving overall, functional communication skill in a group setting. Exercises include listening, speaking, reading, writing, and structured conversation. May also be useful to caregivers.

**DSPS 4035. High Tech Computer Access for the Disabled (450 hrs)**
A laboratory course for the disabled introducing adaptive computer equipment and software for development of vocational, academic and daily living skills. Computer assisted instruction in cognitive and academic skills. Word processing, spreadsheet, database, graphics, Internet, and e-mail in accessible formats.

**DSPS 4037. Speech and Language Skills**
Strategies to alleviate communication deficits are provided for students with diagnosed speech, language and/or hearing disorders. Individual and small group instruction. Intake assessment is provided.

**DSPS 4038. Community Living Skills (52.5-140 hrs)**
Using lecture, demonstration, roleplaying discussion exercise, field experience and the expressive arts, students with disabilities will develop and utilize skills needed for successful participation in the community.

**DSPS 4042. Active Job Search**
Designed for all students with disabilities who are job ready and need placement services and advanced job search strategies. Tailoring resumes, cover letters, and applications. Interviewing techniques and job search planning/management. Field experiences to local businesses, employers, and organizations may also be required.

**DSPS 4050. Life Skills for the Disabled (90-270 hrs)**
Designed for students identified as developmentally delayed learners who want to improve their basic life skills for vocational purposes and are unable to benefit from instruction offered in regular classes. Small group instruction is offered in money handling skills, computer basics, community resources, and personal responsibility in preparation for entry level jobs and daily living. Students with reading levels below...
third grade may experience difficulty. Designed to be completed in two years (as long as the student is making measurable progress).

DSPS 4051. Quick Computer Accessibility (12 hrs)
Very quick course in elementary computer, email, and Internet searches for jobs and housing designed for persons recovering from drug or alcohol addiction.

DSPS 4303. Adaptive Physical Education (Adaptive Yoga)
Designed for students with physically disabling conditions who want to improve and maintain their physical and mental well-being and who are unable to benefit from instruction offered in mainstream P.E. classes.

DSPS 4305. High School Level Learning Strategies (90-180hrs)
Announcement of curricula

**Blind/Visually Impaired**

DSPS 4101. Communication - Blind/Visually Impaired
Through adapted exercises in writing, spelling, handwriting, vocabulary building, speaking and listening, students improve skills to compensate, in part, for visual loss.

**Deaf/Hard of Hearing**

DSPS 4210. Lipreading (36-54 hrs)
Instruction and practice in lipreading, communication breakdown strategies, stress reduction, creative problem solving, and assertiveness. Acquaints students with assistive listening devices and available services. Supportive group environment. Appropriate for mild to severe hearing impairment.

**Earth Sciences**

Office: Science 43
Phone Number: (415) 452-5061
Web Site: www.ccsf.edu/Earth

**Announcement of Curricula**

**Degree Curricula**

**Earth Science Major (AS)**

**Earth science** is the integrated study of the biological, chemical, physical, and geological processes at work on Earth. Synthesis of multiple disciplines is required for understanding and helping to solve problems that humans face as they interact with the Earth and its natural processes, such as climate change, flooding rivers and coasts, hurricanes, and oceanic and atmospheric circulation.

Earth science, an interdisciplinary science, requires expertise in basic physical, chemical, and biological sciences, with a solid foundation in geology, meteorology, and oceanography. It requires skill in problem solving, analysis, scientific inquiry, and communication. Students completing the Associate in Science in Earth Science will be prepared for upper division studies in earth sciences and for transfer to an earth science program at a four-year college. This major will also help prepare students to advise and educate others about issues requiring knowledge of how the earth works. To accomplish these goals, majors will complete transferable lower-division courses in earth science, math, chemistry, and physics.

Through the core units of the earth science major, students will gain the scientific knowledge necessary to investigate problems and ideas presented in upper division earth science courses. The laboratory work will train students to use current laboratory technologies, equipment and techniques to engage in the research process using scientific methods and to investigate research questions safely.

Earth science majors will be able to take most or all of their lower division courses at CCSF before they transfer, but should see a counselor to confirm their program of study. Additional courses might be required to transfer to particular institutions. The earth science major is suitable for students planning to transfer into programs in earth and environmental sciences. Future career areas for which this major is good training include:

- High school and middle school science teaching;
- Technical support for firms engaged in environmental engineering, environmental monitoring and protection, natural resource analysis and management, hazardous materials and ecological remediation, computer mapping, etc.;
- Technical support to city, county, state, and other governmental agencies charged with land use and other planning;
- Preparation for graduate education in such fields as resource management, environmental public policy, and environmental law;
- Science writing, editing, and librarianship;
- Interpretation for park systems, nature centers, museums, and other areas requiring natural science field skills and natural history communication skills;
- Business and entrepreneurship.

**Program Goals and Objectives.** The earth science major is designed to clearly demonstrate the breadth of expertise required by earth scientists and to prepare students for the advanced courses and projects that lie ahead should they transfer to a bachelor's major in earth sciences at a four-year college. This major will also help prepare students to advise and educate others about issues requiring knowledge of how the earth works.

**Learning Outcomes**

A. Understand how scientists think and be able to think, analyze, and discuss issues with similar rigor, skepticism, evidential support, etc.

B. Value the learning received from peers and colleagues

C. Read and critically evaluate relevant literature

D. Collect data, measure, analyze results, form hypotheses from data, test hypotheses especially as relates to earth science phenomena.

E. Solve quantitative problems

F. Recognize and embrace complex problems and develop strategies for better understanding and solving them (where possible with current methods).

G. Understand the dynamic nature and limits of scientific knowledge

H. Collaborate well with other students

I. Participate in field work including making observations at outcrops, understanding the difference between observations and interpretations, taking field notes they have to use; developing
the "eyes of an earth scientist;" especially as relates to earth science phenomena.

J. Understand the job market and opportunities in the earth sciences and how to access them

K. Evaluate the results of humans attempting to redirect or change the forces of nature; and understand the role each person plays in the politics and economics of this problem especially as relates to earth science phenomena.

L. Successfully transfer to a 4-yr college, complete an AS, or transfer to a graduate program (depending on student's interests)

M. Feel a continued connection to and support from our department as each student continues with their educational journey

N. Be successful in the next level of earth science coursework, should they choose to continue

O. Recognize the interdisciplinary nature of science and synthesize ideas from physics, chemistry, biology, and geology to evaluate earth science phenomena.

P. See things in the natural world around them that they didn't see before.

Courses Required for the Major in Earth Science

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 10 + 10L</td>
<td>5</td>
</tr>
<tr>
<td>OCAN 1 + 1L</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101A</td>
<td></td>
</tr>
<tr>
<td>CHEM 103A</td>
<td></td>
</tr>
<tr>
<td>MATH 110A</td>
<td></td>
</tr>
<tr>
<td>MATH 100A</td>
<td></td>
</tr>
</tbody>
</table>

One of the following physics options*: PHYS 2A + 2AL, PHYS 2B + 2BL, PHYS 4A + 4AL, PHYS 4B + 4BL

Elective courses (choose two of the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL II</td>
<td>3</td>
</tr>
<tr>
<td>PALE 1</td>
<td>4</td>
</tr>
<tr>
<td>GEOG/GIS 110</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1 + 1L</td>
<td>4</td>
</tr>
<tr>
<td>GEO 18</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 1</td>
<td>3</td>
</tr>
<tr>
<td>BIO 100A</td>
<td>5</td>
</tr>
<tr>
<td>BIO 100B</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 30</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 31 to 37

*NOTE: Students who want to increase their opportunities should choose Physics 4A/B series instead of 2A/B (especially if they plan to continue or work in a physics- or chemistry-related field of earth science).

Recommended activities:

- Enroll in the Earth Sciences Club
- Become part of the Earth Sciences Mentoring Program (see Department website for details).
- Enroll in as many of the choices described above as possible, as many transfer programs will require both.

Geology Major (AS)

Geology is the study of the materials of which the Earth is made (inside and out – rocks, minerals, water, oil, natural gas, and magmas), the structures that are produced (Earth layers, mountains, volcanoes, basins), the processes acting upon them (earthquakes, volcanism, landslides, floods, magnetic fields), and the evolution of Earth and its materials over time (Earth formation, early history, ice ages, and current climate change).

Geology courses are recommended for anyone interested in understanding and living with the natural world around us and in making informed decisions on matters pertaining to interactions between natural Earth processes and society.

Geology, an interdisciplinary science, requires expertise in chemistry, physics, mathematics, computer science, and critical thinking. It requires skill in problem solving, analysis, scientific inquiry, and communication. Students completing the Associate's of Science in Geology will be prepared for upper division studies in geology and for transfer to a geology program at a four-year college. To accomplish this goal, majors will complete transferable lower-division courses in geology, math, chemistry, and physics.

Geology majors will be able to take most or all of their lower division courses at CCSF before they transfer, but should see a counselor to confirm their program of study. Additional courses might be required to transfer to particular institutions. The geology major is suitable for students planning to transfer into programs in the geology, oceanography, earth sciences, and environmental sciences.

Through the core units of the geology major, students will gain the scientific knowledge necessary to investigate problems and ideas presented in upper division geology courses. The laboratory work will train students to use current laboratory technologies, equipment and techniques to engage in the research process using scientific methods and to investigate research questions safely.

Program Goals and Objectives. The geology major is designed to clearly demonstrate the breadth of expertise required by geologists and to prepare students for the advanced courses and projects that lie ahead should they transfer to a bachelor's major in geology at a four-year college.

Learning Outcomes

A. Understand how scientists think and be able to think, analyze, and discuss issues with similar rigor, skepticism, evidential support, etc.

B. Value the learning received from peers and colleagues.

C. Read and critically evaluate relevant literature.

D. Collect data, measure, analyze results, form hypotheses from data, test hypotheses especially as relates to geologic phenomena.

E. Solve quantitative problems

F. Recognize and embrace complex problems and develop strategies for better understanding and solving them (where possible with current methods).

G. Understand the dynamic nature and limits of scientific knowledge.

H. Collaborate well with other students.

I. Participate in field work including making observations at outcrops, understanding the difference between observations and interpretations, taking field notes they have to use; developing the "eyes of a geologist;" especially as relates to geologic phenomena.

J. Understand the job market and opportunities in the earth sciences and how to access them.
K. Evaluate the results of humans attempting to redirect or change the forces of nature; and understand the role each person plays in the politics and economics of this problem especially as relates to geologic phenomena.

L. Successfully transfer to a 4-yr college, complete an AS, or transfer to a graduate program (depending on student’s interests).

M. Feel a continued connection to and support from our department as each student continues with their educational journey.

N. Be successful in the next level of geologic coursework, should they choose to continue.

O. Recognize the interdisciplinary nature of science and synthesize ideas from physics, chemistry, biology, and other disciplines to evaluate geologic phenomena.

P. See things in the natural world around them that they didn’t see before.

Courses Required for the Major in Geology

Core Course | Units
--- | ---
GEOL 10 Physical Geology | 3
GEOL 10L Physical Geology Lab | 2
CHEM 101A General College Chemistry | 5
CHEM 101B General College Chemistry | 5
MATH 110A Calculus I | 4
MATH 110B Calculus II | 4

One of the following physics options*:

PHYC 2A + 2AL Introductory Physics + Lab | 4
PHYC 2B + 2BL Introductory Physics + Lab | 4
OR PHYC 4A + 4L Introductory Physics + Lab | 4
PHYC 4B + 4BL Introductory Physics + Lab | 4

Elective courses (choose one):

GEOL 11 Historical Geology | 3
PALE 1 Introduction to Paleontology | 4
OCAN 1 Oceanography | 3
GEOL 30 Environmental Geology | 3

Total Units | 34 to 35

* NOTE: Students who want to increase their opportunities should choose Physics 4A/B series instead of 2A/B (especially if they plan to major in geochemistry or geophysics).

Recommended activities:

- Enroll in the Earth Sciences Club
- Become part of the Earth Sciences Mentoring Program (see Department website for details).
- Enroll in both the geology and biology classes as many transfer programs will require both.

Oceanography Major (AS)

The oceanography major is designed to clearly demonstrate the breadth of expertise required by Oceanographers and to prepare students for the advanced courses and projects that lie ahead should they transfer to a bachelor’s major in oceanography at a four-year college.

The ocean plays a central role in physical, biological, chemical, and geological processes on earth. As such, a degree in oceanography requires an understanding of the interactions between the biosphere, hydrosphere, lithosphere, and atmosphere.

Oceanography courses are recommended for anyone interested in better understanding and living with the natural water bodies around us, in understanding global climate system, and in making informed decisions on matters pertaining to interactions between natural Earth processes and society.

Oceanography, an interdisciplinary science, requires expertise in chemistry, physics, biology, geology, mathematics, computer science, and critical thinking. It requires skill in problem solving, analysis, scientific inquiry, and communication. Students completing the Associate in Science in Oceanography will be prepared for upper division studies in oceanography and for transfer to an oceanography program at a four-year college. To accomplish this goal, majors will complete transferable lower-division courses in oceanography, biology, math, chemistry, and physics.

Oceanography majors will be able to take most or all of their lower division courses at CCSF before they transfer, but should see a counselor to confirm their program of study. Additional courses might be required to transfer to particular institutions. The Oceanography major should be suitable for students planning to transfer into programs in marine science, oceanographic and atmospheric sciences, oceanography, earth sciences, and environmental sciences. Note: because of the diversity within this discipline, students will narrow their focus once they get to their transfer institution (to biological oceanography, geological oceanography, physical oceanography, or chemical oceanography). We cannot provide coverage for all these areas of focus in this one major and don’t intend to. Please seek advice to determine if there are additional courses you should take for your particular major.

Through the core units of the oceanography major, students will gain the scientific knowledge necessary to investigate problems and ideas presented in upper division oceanography courses. The laboratory work will train students to use current laboratory technologies, equipment and techniques to engage in the research process using scientific methods and to investigate research questions safely.

Learning Outcomes

A. Understand how scientists think and be able to think, analyze, and discuss issues with similar rigor, skepticism, evidential support, etc.

B. Value the learning received from peers and colleagues.

C. Read and critically evaluate relevant literature.

D. Collect data, measure, analyze results, form hypotheses from data, test hypotheses especially as relates to oceanographic phenomena.

E. Solve quantitative problems.

F. Recognize and embrace complex problems and develop strategies for better understanding and solving them (where possible with current methods).

G. Understand the dynamic nature and limits of scientific knowledge.

H. Collaborate well with other students.

I. Participate in field work including making observations at outcrops, understanding the difference between observations and interpretations, taking field notes they have to use; developing the "eyes of a oceanographer;” especially as relates to oceanographic phenomena.

J. Understand the job market and opportunities in the earth sciences and how to access them.

K. Evaluate the results of humans attempting to redirect or change the forces of nature; and understand the role each person plays in the politics and economics of this problem especially as relates to oceanographic phenomena.
Earth Sciences 219

L. Successfully transfer to a 4-yr college, complete an AS, or transfer to a graduate program (depending on student’s interests).
M. Feel a continued connection to and support from our department as each student continues with their educational journey.
N. Be successful in the next level of oceanographic coursework, should they choose to continue.
O. Recognize the interdisciplinary nature of science and synthesize ideas from physics, chemistry, biology, and geology to evaluate oceanographic phenomena.
P. See things in the natural world around them that they didn’t see before.

Courses Required for the Major in Oceanography

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCAN 1 Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>OCAN IL Oceanography Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 101A General College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 110A Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110B Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 4A Physics for Scientists and Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHYC 4AL Physics Laboratory for Scientists and Engineers</td>
<td>1</td>
</tr>
<tr>
<td>PHYC 4B Physics for Scientists and Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHYC 4BL Physics Laboratory for Scientists and Engineers</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective courses (choose one of the following two courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 101B General College Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 101C Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

Choose one of the following sets of courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 10 + 10L Physical Geology + Lab</td>
<td>5</td>
</tr>
<tr>
<td>BIO 100A + BIO 100B General Biology</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Units | 35 or 41

*NOTE: Students who want to major in biological oceanography should take the BIO 100A + B option instead of geology.

Recommended activities:

- Enroll in the Earth Sciences Club.
- Become part of the Earth Sciences Mentoring Program (see Department website for details).
- Enroll in both the geology and biology classes as many transfer programs will require both.
- Enroll in Math 110C.
- Enroll in a computer class, such as Geog/GIS 110.

Certificate Curriculum

Geographic Information Systems (GIS) Certificate

Learning Outcomes

Students will develop in-depth knowledge of the fundamental concepts and practice of Geographic Information Systems (GIS) and learn hands-on problem-solving skills doing real-world GIS application projects. Students will be able to apply this knowledge and hands-on skills to various fields including, but not limited to, planning, engineering, geography, criminology, real estate, biotech, public utilities, transportation, forestry, ecology, resource management, emergency response, business/marketing.

Requirements for the Certificate of Accomplishment

Students may obtain the Certificate of Accomplishment in Geographic Information Systems (GIS) by completing the following courses with a grade of C or higher in each course. A minimum of two of the courses must be taken at City College of San Francisco.

Courses Required for the Certificate of Accomplishment in Geographic Information Systems (GIS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG/GIS 110 Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/GIS 111 GIS Analysis and Modeling</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/GIS 112 GIS Software Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units | 9

Announcement of Courses

General Information

The Earth Sciences Department offers day and evening courses that advance students toward degrees in both the natural and social sciences. Credit earned is transferable, and most courses satisfy specific graduation requirements at four-year universities. For more information, visit our website: [www.ccsf.edu/Earth](http://www.ccsf.edu/Earth).

Credit, Degree Applicable Courses:

**Geography**

GEOG 1. Physical Geography (3)
Lec-3, field trips
An introduction to the Earth’s physical environment. Processes and patterns of weather and climate, the development of landforms, plant and animal distributions, and the interpretation of maps. Attention given to the physical environment and natural hazards of California and the Bay Area. CSU/UC

GEOG 1L. Physical Geography Laboratory (1)
Lab-3, field trips
Prereq.: Completion/concurrent enrollment in GEOG 1
The study of weather and climate, tectonic processes, and landforms. Emphasis on the interpretation of weather maps, climatic data, aerial photographs, and topographic maps. CSU/UC

GEOG 4. Cultural Geography (3)
Lec-3, field trips
An introduction to patterns in the contemporary human landscape. Topics include dynamics of population growth, migration, systems of agriculture, the legacy of colonialism, uneven economic development, the historical development and spread of religion and language. CSU/UC

GEOG 7. Economic Geography (3)
Lec-3, field trips
An introduction to economic geography. Topics include patterns and processes of urbanization, industrialization, and the interlinked global economy. Contemporary issues such as international business and changing patterns of manufacturing in the United States. CSU/UC

GEOG 41-42-43. Current Topics in Earth Sciences (1-2-3)
Lec-1-2-3, field trips
P/NP available
One and two-unit courses are less than a semester in duration.
Exploration of topics of current interest in the Earth Sciences. CSU
(UC upon review)
GEOG 41-42-43 = GEOL 41-42-43

GEOG 41A. Climate Change. CSU/UC
GEOG 41A = GEOL 41A

GEOG 49. National Parks—Their Geology and Geography (3)
Lec-3, field trips
A survey of the national parks and monuments with emphasis on the western United States. An introduction to their discovery and development; appreciation of their particular beauties, natural phenomena, and historic significance. CSU

GEOG 91-92-93. Geography Work Experience (1-2-3)
Work-5,10,15
Prereq.: Approval of GEOG Work Experience Coordinator
Repeat: max. 6 units
Off-campus work may include employment or volunteer service in a geography-related setting (e.g., laboratory, museum, park) under the supervision of a qualified professional or faculty member. On-campus work consists of instruction and experience in the preparation, care, and maintenance of equipment, materials, training aids, and specimens used in the Earth Sciences Department. CSU

GEOG 110. Introduction to GIS (3)
Lec-2.5, lab-1.5
Prereq.: GIS/GEOG 110
A primer course for GIS technology. History, structure, uses, and current trends of GIS, related fundamental concepts, basic query and cartography operations using an industry-standard GIS software such as ESRI’s ArcGIS™. CSU/UC
GEOG 110 = GIS 110

GEOG 111. GIS Analysis and Modeling (3)
Lec-2.5, lab-1.5
Prereq.: GIS/GEOG 110
Foundational use of GIS software. GIS database design, data collection, sophisticated analysis. Production of professional maps. Interface customization. Hands-on training using industry-standard GIS software (ESRI’s ArcView™ version 9). Introduces Global Positioning Systems (GPS) as they relate to GIS. CSU
GEOG 111 = GIS 111

GEOG 112. GIS Software Technology (3)
Lec-2.5, lab-1.5
Prereq.: GIS/GEOG 110
Hands-on training in advanced application of GIS technology. Network modeling, suitability analysis, web GIS, mobile GIS, software customization using Visual Basic for Applications (VBA) on ESRI’s ArcView™ version 9 platform. CSU
GEOG 112 = GIS 112

Geology

GEOL 10. Physical Geology (3)
Lec-3, field trips
Not open to students who have completed a course in general geology
Introduction to the basic concepts of physical geology, including Earth’s origins and internal structure, plate tectonics, mountain building, earthquakes, minerals, rocks, volcanoes, geologic time, weathering, erosion, coastal processes, landslides, rivers, glaciers, and ice ages. Emphasis on geologic features of western North America. CSU/UC

GEOL 10L. Physical Geology Lab (2)
Lec-1, lab-3, field trips
Prereq.: MATH 40 or ET 108B or demonstration of exit skills; and completion/concurrent enrollment in GEOL 10
Introduction to the materials of the Earth with emphasis on the identification and interpretation of common minerals and rocks (especially those common to California); interpretation of topographic, geologic, and structural maps; and analysis of Plate Tectonics processes. CSU/UC

GEOL 11. Historical Geology (3)
Lec-3, field trips
Origin of the Earth and its development through geologic time. The formation and destruction of mountain ranges and ocean basins. The evolution of plants and animals as seen through the fossil record. Emphasis on the geologic history of North America. CSU/UC

GEOL 18. Geology of California (3)
Lec-3, field trips
Prereq.: GIS/GEOG 110
Introduction to California geology. Rocks and minerals, geologic features, and economic geology. The geologic history and importance of each natural province of California. CSU/UC

GEOL 20A. Long Valley Geology
GEOL 20B. Sierra Nevada Geology
GEOL 20C. Death and Owens Valley Geology

GEOL 21A. San Francisco Coastal Geology
GEOL 21B. San Francisco Geology
GEOL 21C. The San Andreas Fault System

GEOL 25. Introduction to Gems (3)
Lec-3, field trips
Prereq.: GIS/GEOG 110
Hands-on training in advanced application of Gems technology. Network modeling, suitability analysis, web GIS, mobile GIS, software customization using Visual Basic for Applications (VBA) on ESRI’s ArcView™ version 9 platform. CSU
GEOG 112 = GIS 112

GEOL 30. Environmental Geology (3)
Lec-3
The study of the nature and dynamics of Earth’s near-surface environment (waters, atmosphere, soils, and landforms) and human interactions with it. Topics include climate and climate change, natural hazards (earthquakes, volcanoes, floods), resource management (mining, fossil fuels, groundwater), pollution (water quality and air pollution), monitoring, and political and human influences. CSU/UC
GEOL 30L. Environmental Geology Lab (1)
Lab-3, field trips
Prereq: Completion of or concurrent enrollment in GEOL 30
An introduction to the fundamentals of Environmental Geology through laboratory work in hazards and resource assessment, regional planning as relates to these assessments, and the nature and dynamics of Earth's near-surface environment (water, atmosphere, soils, and landforms) and human interactions with it. CSU/UC

GEOL 41-42-43. Current Topics in Earth Sciences (1-2-3)
Lec-1-2-3, field trips
One and two-unit courses are less than a semester in duration.
Exploration of topics of current interest in the Earth Sciences. CSU (UC upon review)
GEOL 41-42-43 = GEOG 41-42-43

GEOL 41A. Climate Change. CSU/UC
GEOL 41A = GEOG 41A

GEOL 91-92-93. Geology Work Experience (1-2-3)
Work-5,10,15
Repeat: max. 6 units
Off-campus internship in a geology-related setting (e.g. laboratory, museum, park) under the supervision of a qualified professional. Or on-campus internship in instruction and the preparation and maintenance of equipment and materials. The student will need to arrange the internship and can contact the department for suggestions and strategies. CSU

Oceanography

OCAN 1. Oceanography (3)
Lec-3, field trips
Not open to students who have completed OCAN 10.
Introduction to the major physical, biological, chemical, and geological processes at work in the oceans. Covers the formation and evolution of the oceans through Earth's history, major processes at work today, and the impact of humans on its currents, coastal processes, chemistry, and biological residents. UC/CSU

OCAN 1L. Oceanography Laboratory (2)
Lec-1, lab-3, field trips
Prereq: MATH 40 or ET 108B or demonstration of exit skills; and completion/concurrent enrollment in OCAN 1
Not open to students who have completed OCAN 10.
Introduction to the physical, biological, chemical, and geological processes at work in the oceans with emphasis on interpretation of bathymetric and nautical charts; analysis of Plate Tectonics processes; sand migration; currents; tides; El Nino; and how all these relate to and interact with the biological organisms of San Francisco Bay. UC/CSU

Paleontology

PALE 1. Introduction to Paleontology (4)
Lec-3, lab-3
Introduction to the principles of paleontology (study of past life on Earth), basic laboratory skills in paleontology, and an overview of the evolution of life throughout the history of Earth. CSU/UC

Economics

Office: Batmale 656
Phone Number: (415) 239-3330
Web Site: www.ccsf.edu/socialsci

Announcement of Courses
(See also courses in "Business Administration" and "Business."

Credit, Degree Applicable Courses:

ECON 1. Principles of Macroeconomics (3)
Lec-3
P/NP available
An introduction to the general principles, terminology, and methods of economics with emphasis on macroeconomics. General topics include: economic institutions, national income analysis, employment theory, money and banking, monetary and fiscal policy, and economic growth. CSU/UC

ECON 3. Principles of Microeconomics (3)
Lec-3
P/NP available
Prereq.: ECON 1
A continuation of the introduction to the general principles and terminology of economics with emphasis on microeconomics. General topics include: supply and demand theory, utility, production, costs, revenues, market structures, income distribution, international trade, and comparative economic systems. CSU/UC

ECON 5. Introductory Statistics (4)
Lec-5
P/NP available
Prereq.: MATH 92, 60, or demonstration of MATH 60 exit skills or 2nd year HS Algebra
No credit for this course if another statistics has been completed.
Introduction to statistical method, with emphasis on the analysis of statistical data—their gathering, classification, presentation, and interpretation. Empirical and theoretical frequency distributions with emphasis on measures of central tendency and variation, probability sampling, estimation, hypotheses testing, correlation and regression analysis, and nonparametric statistics. CSU/UC

ECON 6. International Economics (3)
Lec-3
Introduction to the general principles, terminology, and methods of international economics, with emphasis on international trade. Examine several alternative models of international trade as well as foreign exchange markets, currency/financial crisis, globalization, unfair trade practices, regional integration, and the impact of trade on economic growth. CSU

ECON 10. Economic History of the United States (3)
Lec-3
P/NP available
A survey of the economic development of the United States from colonial times to the present, with emphasis on the relationship of economic activities to social and political development. CSU/UC

ECON 25. Women in the Economy (3)
Lec-3
P/NP available
An introduction to women's roles in the U.S. economy, including varying experiences related to race, ethnicity, and class. Examines women's occupations and earnings; women's household activities and how they affect paid work; women as consumers; public policy regarding women's work and poverty; and current special topics. Applies and
Engineering and Technology

General Information
Engineering and industrial practice in the United States is based to a considerable extent on the team concept. Engineers, scientists, experts in management and production, and others coordinate their work with that of technicians, craftpersons, and workers with varying degrees of skill in order to complete particular projects. To meet the varying needs of students and industry, the Engineering and Technology Department at City College of San Francisco offers an Engineering Program along with two Engineering Technology programs to train technicians. The programs are designed so that students may satisfy the requirements for graduation from the College and receive a degree of Associate in Science. In addition, the Engineering Technology programs provide a good foundation for transfer to a bachelor degree in management and production, and others coordinate their work with that of technicians, craftpersons, and workers with varying degrees of skill in order to complete particular projects. To meet the varying needs of students and industry, the Engineering and Technology Department at City College of San Francisco offers an Engineering Program along with two Engineering Technology programs to train technicians. The programs are designed so that students may satisfy the requirements for graduation from the College and receive a degree of Associate in Science. In addition, the Engineering Technology programs provide a good foundation for transfer to a bachelor degree in engineering technology or industrial technology.

Courses in the Engineering Department are identified according to the following headings: Computer Aided Drafting (CAD), Electronics (ELEC), Engineering (ENGN), Engineering Technology (ET), Welding (WELD), and Geographic Information System (GIS).

Engineering Major (AS)

General Information
Engineers develop the skill to design functional products and systems based upon a foundation formed from engineering, physical science, and mathematics course work. They pursue rewarding careers in a professional environment with good employment and advancement opportunities.

City College of San Francisco offers courses leading to the Associate in Science Degree and Major in Engineering. Graduates generally transfer to four-year institutions as juniors where they can major in computer, electrical, electronics, mechanical, civil, industrial, chemical, manufacturing or other engineering. Others seek employment as an engineering assistant.

The degree program is based upon the recommendation of the Engineering Liaison Committee which represents the University of California, California State Universities, private universities, and community college engineering schools and departments.

Learning Outcomes
Students will develop an understanding of the fundamental principles of the major fields of engineering. The students will develop a set of problem solving skills that will enable them to solve variety of practical engineering problems using the latest software products such as word processing, spreadsheets, MATLAB, CAD, and the latest computer programming languages.

At the completion of the lower division requirements in engineering, the student:

a. will have a sound understanding in basic engineering, physics and chemistry topics
b. will have demonstrated math skills through differential equations
c. will have extensive skill and experience in problem solving
d. will be eligible to transfer for a 4-year degree in engineering
e. will have the skills to work as an engineering assistant for an engineering company

Prerequisites. Beginning courses in engineering require one-year high school courses in algebra, geometry, advanced algebra, trigonometry, chemistry, physics, and mechanical drawing and a half-year course in trigonometry. The equivalents to these courses may be taken at City College.

Courses Required for the Major in Engineering

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 10A Intro to Engn: The Profession</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 10B Intro to Engn: Softwr Tools &amp; Design</td>
<td>2</td>
</tr>
<tr>
<td>MATH 10A Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 10A or 103A General Chemistry</td>
<td>4 or 5</td>
</tr>
</tbody>
</table>

Additional GE Requirements* | 12 |

Total Units | 58–59 |

*Consult the catalog for specific requirements and courses available to satisfy the graduation requirements for the Associate in Science Degree. So as to not duplicate course work, it is recommended that you try to satisfy the requirements of the transfer institution as well as those of City College.

If you wish to substitute another class because of specific requirements of the transfer institution you will attend, consult with the Engineering Department Advisor.

NOTE: Four-year universities may have additional course requirements for completion of lower division. Consult the Transfer Center and the Engineering Advisor for additional information. Other technical courses that transfer in engineering include CHEM 101B; ENGN 1A, 1B, 24, 36, 37, 45; MATH 115, 120, 130; PHYC 4D and 4DL.

Biotechnology Major (AS)

In the biotechnology curriculum, a two-year course of study, the Engineering and Technology Department offers students specialized training for employment as bio-technicians engaged in research, design, manufacturing, operation, maintenance, testing, or sales related to this field. All students in this field of study complete the
required core courses. Specialization is offered from the second through the fourth semester course work and will lead to a certificate of accomplishment concurrently. The program advisers work closely with each student to assure normal progress. Upon successful completion of the curriculum, students receive the Associate in Science degree with Biotechnology as the Major.

Training in the Major. Training in the first year is designed to provide students with a sound working knowledge of the applied principles of mathematics, chemistry and biology and introductory biotechnology. In the second year, students complete more advanced courses in biotechnology.

Employment. Students who complete the curriculum satisfactorily are qualified for positions as quality control, research and development, and bio-manufacturing technicians in hundreds of pharmaceutical and biotechnology companies in the Bay Area.

Major. Students who complete the curriculum with final grades of C or higher in the major technical courses receive the Associate in Science degree in Biotechnology.

Four-year Degree Preparation. Besides preparing students who complete this curriculum for careers in the biotechnology industries, the students can also transfer to universities to pursue a BS degree, most likely in industrial technology with focus on biotechnology. The department currently has a formal articulation agreement with California State University at Fresno. Please contact the program advisor (239-3505 Science room 148) for details.

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 108A Practical Math I</td>
<td>3</td>
</tr>
<tr>
<td>or an equivalent math course</td>
<td>3</td>
</tr>
<tr>
<td>BIO 11 Intro to the Science of Living Organisms</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 32 Intro to Medical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Technical BTEC courses</td>
<td>4</td>
</tr>
<tr>
<td>Additional Requirements (General Ed)</td>
<td>3</td>
</tr>
</tbody>
</table>

Subsequent Semesters

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 108B Practical Math II</td>
<td>3</td>
</tr>
<tr>
<td>or an equivalent math course</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 33 or CHEM 40 Advanced Medical Chemistry and Biotechnology</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 12 or ET 107 Communication and Language Skills</td>
<td>3</td>
</tr>
<tr>
<td>Additional Requirements (General Ed)</td>
<td>12</td>
</tr>
<tr>
<td>Technical BTEC courses or Electives listed below</td>
<td>20</td>
</tr>
<tr>
<td>Total Units</td>
<td>60</td>
</tr>
</tbody>
</table>

Technical Elective Courses for the Major in Biotechnology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 3 Briefings in Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 10 Research Skills for Career</td>
<td>2</td>
</tr>
<tr>
<td>Opportunities in Biology</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 12A GLP and GMP Principles</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 12B GMP Compliance</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 14A Biotechnology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 14B Biotechnology Internship Support</td>
<td>4</td>
</tr>
<tr>
<td>BTEC 21A Mammalian Cell Culture</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 21B Fluorescent Cell Technology</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 21C Stem Cell Technology</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 22 Immunoassay: ELISA</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 23 Western Blotting Techniques</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 24 Introduction to PCR</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 25 Analytical PCR Technology</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 26EX Southern and Northern Blotting</td>
<td>0.5</td>
</tr>
<tr>
<td>BTEC 101 Fermentation and Protein Purification</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 115 Recombinant DNA Biotechnology</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 120 Molecular and Cell Biotechnology</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 221 Biotech Process Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 222 Biotech Calibration and Validation</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>

Up to 6 units of course work may be taken from related areas with the approval of the program advisor. These courses may include courses from related departments such as Biology.

### Engineering Technology Program

#### General Information

In the Engineering Technology Programs, City College trains students for employment as engineering technicians - persons who work with or under the directions of engineers and perform duties requiring a combination of the theoretical knowledge of an engineer and some of the skills of a craftsman.

The College offers two-year curricula in engineering technology in two fields: Electronics Engineering Technology and Mechanical Engineering Technology. The curricula in these fields comprise the Engineering Technology Programs. Students should be aware that any change in major, such as a change from one technical curriculum to another or from one program to another, requires additional time for the completion of their revised educational objectives.

#### Prerequisites

High school prerequisites are one-year courses in elementary and advanced algebra, geometry, trigonometry, mechanical drawing, and physics. A one-year course in high school chemistry is highly recommended for students intending to transfer to a bachelor degree program in Engineering Technology. Students who have not completed the required high school courses may take them at City College of San Francisco.

Students should possess a minimum level of competency in English communication skills. The completion of English as a Second Language 79 is recommended.

#### Broad Preparation for Employment

Because emphasis in the Program is on both fundamental engineering theory and basic industrial practices, graduates may qualify for employment in many fields: CAD operator, production planning and control, manufacturing, testing, inspection, sales, installation, maintenance, or servicing.

Each curriculum in engineering technology includes courses in subjects common to all branches of engineering. In general, these subjects include the following: graphics, mathematics, orientation to engineering, and physics. Through this related study, students obtain a better understanding of the work in their majors and develop a broad technical background.

#### General Education

The curricula also include instruction in general education so that students may satisfy the College graduation requirements in this area.

#### Associate in Science Degree and Major

The Engineering Technology Program is designed so that students may satisfy the requirements for graduation from the College. Students who satisfy these requirements and complete any of the curricula with final grades of C or higher in their major technical courses also receive the Associate in Science degree in Electronic Engineering Technology or Mechanical Engineering Technology. The Major may be considered a recommendation by the faculty of the Engineering and Technology Department which, in conjunction with the Career Development and Placement Center, will aid the graduate in finding a position.

#### Transfer to Other Colleges and Universities

Students in the Engineering Technology Programs may either enter industry upon
Students who complete the curriculum with final grades of C or better are qualified for positions as technicians engaged in research and development; as well as in manufacturing, testing, installing, and maintaining electronic equipment. Positions to which graduates may advance after obtaining experience and further training include those of estimator-designer, field engineer, assistant manufacturing engineer, technical supervisor, or sales engineer. Positions to which graduates of the program may advance after obtaining experience and further training include those of estimator-designer, field engineer, assistant manufacturing engineer, technical supervisor, or sales engineer.

Employment. Students who complete the curriculum satisfactorily are qualified for positions as estimator-designer, field engineer, assistant manufacturing engineer, mechanical or research technician, junior test engineer, or engineering sales representative. Positions to which graduates may advance after obtaining experience and further training include those of senior estimator-designer, field engineer, operating engineer, manufacturing engineer, technical supervisor, or sales engineer.

Major. Students who complete the curriculum with final grades of C or higher in their major technical courses receive the Associate in Science degree in Electronic Engineering Technology.

In the curriculum in Electronic Engineering Technology, a two-year course of study, the Engineering and Technology Department offers students specialized training for employment as engineering technicians engaged in research, design, operation, maintenance, testing, or sales. Students in this curriculum complete the common core courses (see preceding Common Core). Specialization is offered from the second through the fourth semester. The program adviser works closely with each student to assure normal progress. Upon successful completion of the curriculum, students receive the Associate in Science degree in Mechanical Engineering Technology.

Training in the Major. Training in the first year is designed to provide students with a sound working knowledge of the theory of direct- and alternating-current circuits common to both electrical and electronic applications and the basic principles of amplifiers, solid-state devices, digital techniques, circuits, and systems. In the second year, the student completes a course in advanced electronics, including course work in RF (radio frequency) and microwave circuits, microprocessors and non-sinusoidal circuits.

Electronic Engineering Technology Major (AS)

In the curriculum in Electronic Engineering Technology, a two-year course of study, the Engineering and Technology Department offers students specialized training for employment as engineering technicians engaged in research, design, operation, maintenance, testing, or sales. Students in this curriculum complete the common core courses (see preceding Common Core). Specialization is offered from the second through the fourth semester. The program adviser works closely with each student to assure normal progress. Upon successful completion of the curriculum, students receive the Associate in Science degree in Electronic Engineering Technology.

Courses Required for the Major in Electronic Engineering Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 102A Electronics II: Basic Active Ana Cir</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 102B Electronics II: Basic Digi Cir &amp; Meas</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 103A Electronics III: Inter Ana Cir &amp; Meas</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 103B Electronics III: Inter Digi Cir &amp; Meas</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 104A Electronics IV: Ana &amp; Digi Comm</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 104B Electronics IV: Micro-control Inf.</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 221 Biotech Process Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>Technical Electives</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>

Technical Electives must be selected from Engineering (ENGN) and/or Computer Networking & Information Technology (CNIT) courses.

You may request to substitute courses not on the above list if you get approval of the program advisor. These could include mechanical courses, engineering courses or courses in other departments.

Mechanical Engineering Technology Major (AS)

In the curriculum in Mechanical Engineering Technology, a two-year course of study, the Engineering and Technology Department offers students specialized training for employment as engineering technicians engaged in research, design, operation, maintenance, testing, or sales. Students in this curriculum complete the common core courses (see preceding Common Core). Specialization is offered from the second through the fourth semester. The programs adviser works closely with each student to assure normal progress. Upon successful completion of the curriculum, students receive the Associate in Science degree in Mechanical Engineering Technology.

Training in the Major. Training in the first year is designed to provide students with a sound working knowledge of the principles of engineering drawing, applied mathematics, electrical circuits, physics, manufacturing methods, and computers. In the second year, students complete courses in computer-aided design (CAD), and advanced manufacturing (CAM).

Employment. Students who complete the curriculum satisfactorily are qualified for positions as estimator-designer, field engineer, assistant manufacturing engineer, mechanical or research technician, junior test engineer or engineering sales representative. Positions to which graduates may advance after obtaining experience and further training include those of senior estimator-designer, field engineer, operating engineer, manufacturing engineer, technical supervisor, or sales engineer.

Major. Students who complete the curriculum with final grades of C or higher in their major technical courses receive the Associate in Science degree in Mechanical Engineering Technology.

Students majoring in Mechanical Engineering Technology must take a total of 24 elective units from the following list.

Technical Elective Courses for the Major in Mechanical Engineering Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 180 Intro to Technical Drawing</td>
<td>1</td>
</tr>
<tr>
<td>CAD 181 Intro to Comp Aided Drafting-CAD I</td>
<td>3</td>
</tr>
<tr>
<td>CAD 182 Inter Comp Aided Drafting-CAD II</td>
<td>3</td>
</tr>
<tr>
<td>CAD 183 Adv Comp Aided Drafting-3D Mod</td>
<td>3</td>
</tr>
<tr>
<td>CAD 184 Structural CAD Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CAD 187 HVAC/Pipe CAD Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 188 Adv CAD-Customizing and AutoLISP</td>
<td>3</td>
</tr>
<tr>
<td>CAD 190 Adv CAD-Intro to Solid Works</td>
<td>3</td>
</tr>
<tr>
<td>CAD 191 Adv CAD-Rendering &amp; Animation</td>
<td>3</td>
</tr>
</tbody>
</table>
To apply for a certificate in one of the curricula below, contact the Engineering and Technology Department.

Application for Certificate


Admission. Enrollment in these curricula is open to those who:

1. Want to add to their knowledge of and skills in engineering-related occupations, and
2. Want to improve their competence in these fields in order to prepare for advancement. Students are required to satisfy prerequisites before admission in certain courses in the curriculum; however, instructors will accept equivalent experience in lieu of various prerequisites.

Application for Certificate. To apply for a certificate in one of the curricula below, contact the Engineering and Technology Department office, Science Hall, Room 148, phone (415) 239-3505.

Credit Toward Graduation. All credit that students earn in obtaining the Certificate of Accomplishment in any of the curricula may be applied toward satisfaction of the requirements for graduation from College.

Air-Conditioning and Refrigeration Certificate

Students may obtain the Certificate of Accomplishment in Air-Conditioning and Refrigeration by completing the following courses with the average final grade of C (2.00 grade point average) or higher. (The Engineering and Technology Department may require students who have had limited training and experience in air-conditioning and refrigeration to complete additional courses before awarding the Certificate of Accomplishment)

<table>
<thead>
<tr>
<th>Course Units</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>24</td>
</tr>
</tbody>
</table>

Courses Required for the Certificate of Accomplishment in Air-Conditioning and Refrigeration

<table>
<thead>
<tr>
<th>Course Units</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units Required: 24

Biomanufacturing Certificate

Over the past several years an important change has been taking place in the biotechnology sector. Biotech companies are shifting their focus from exclusively research and development to a mix of drug production and research. This change has been precipitated by a rapidly increasing collection of FDA-approved biotech pharmaceuticals. The San Francisco Bay area has the highest concentration of biotech companies in the world.

The shift towards increasing production of biotech products created a demand for a new set of skills among entry-level workers in the field. The requirements for the certificate in biomanufacturing described here will prepare students for entry into the field as a bio-process technician, media prep technician, pharmaceutical materials specialist, or pharmaceutical manufacturing technician.

The biomanufacturing certificate program is open to anyone. High school algebra (or ET 108B), biology and chemistry are recommended. For more information, call 415-239-3627.

Courses Required for the Certificate of Accomplishment in Biomanufacturing

The requirements for the certificate are completion of the following courses with a grade of C or higher:

<table>
<thead>
<tr>
<th>Course Units</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

Recommended elective courses are: GEN 10; M B 12; BTEC 5, 12A, 12B, 21A

Biomedical Equipment Technician (BMET) Certificate*

*This program is pending state approval.

Please refer to the online version of the Catalog.

Biotechnology Certificate

The biotechnology certificate program is designed to prepare students to work at a biotech company as a technician in quality control, research and development, or biomanufacturing. The biotechnology certificate is designed for students that have earned the biomanufacturing certificate or have a strong grasp of algebra, biology, and chemistry from previous academic or work experience. Call the Biotechnology Hotline at (415) 239-3627 for more information.

Admission. The following courses (or the equivalent) are strongly recommended:

- One semester of elementary algebra (MATH 40 or ET 108B) or completion of a higher level math class.
- Two semesters of chemistry (CHEM 32, 40)
- One semester of biology (BIO 11)
Courses Required for the Certificate of Accomplishment in Biotechnology

Students must complete the following courses with a grade of C or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 22 Immunoassay: ELISA</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 24 Introduction to PCR</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 115 Recombinant DNA Biotechnology (fall)</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 120 Molecular and Cell Biotechnology (spring)</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Units ....................................... 12

The following courses are recommended but not required: M B 12, BIO 91, CHEM 65A, B, C, D, BTEC 21A.

Bioprocess Instrumentation and Control Certificate

Process and control equipment in the biotech industry must be constantly maintained, repaired, upgraded, and validated. Instrumentation technicians are normally generalists, yet certification and FDA requirements require more industry specific specialization in the biotech field. The set of skills acquired through this curriculum may be broadly applied in biotech companies throughout the San Francisco Bay area and beyond.

Courses Required for the Certificate of Accomplishment in Bioprocess Instrumentation and Control

The one-year certificate in bioprocess instrumentation and control described here requires completion of the following courses with a grade of C or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 108B Practical Math II</td>
<td></td>
</tr>
<tr>
<td>or MATH 40 Elementary Algebra</td>
<td></td>
</tr>
<tr>
<td>or a higher level math class</td>
<td>3-4</td>
</tr>
<tr>
<td>BTEC 12A GLP and GMP Principles</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 12B GMP Compliance</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 221 Biotech Process Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 222 Biotech Calibration and Validation</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units ....................................... 8-9

Recommended elective courses are: ELEC 101; BTEC 5; BTEC 101

Biotechnology Lab Assistant Certificate

Over the past several years the biotech industry has grown tremendously and this has generated an increasing number of entry-level positions. In turn there is now a large demand for workers who are qualified for these positions. This entryway certificate program is designed to give a rigorous and engaging introduction to the biosciences while strengthening the math and language skills needed for success in these entry level positions. Our one-year Laboratory Assistant Certificate will prepare students for jobs as media prep technicians, laboratory aids or laboratory safety monitors. No previous academic or work experience.

Courses Required for the Certificate of Accomplishment in Biotechnology Lab Assistant

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First semester</td>
<td></td>
</tr>
<tr>
<td>BTEC 10 Research Skills for Career Opp. in Biology</td>
<td>2</td>
</tr>
<tr>
<td>ET108A Practical Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>ET107 Language Skills for Technicians</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 14A Biotechnology Laboratory Techniques</td>
<td>2</td>
</tr>
</tbody>
</table>

Second semester

BTEC 12A GLP and GMP Principles .............. 1
BTEC 12B GMP Compliance ....................... 1
BTEC 14B Biotechnology Internship Support ... 4
Total units ...................................... 16

Genomics Technology Certificate

The Genomics Technology Certificate program is designed to prepare students for employment in the research areas of genomics and proteomics. Students will gain relevant bioinformatics skills to access, query, and analyze various types of biological and clinical data from public databases, along with molecular biology laboratory skills needed to generate the data. Students will also receive an introduction to the technical computing skills needed to perform the above tasks.

The Genomics Technology Certificate is designed for students that have earned the Biomanufacturing or Biotechnology certificate or have a strong grasp of algebra, biology, and chemistry from previous academic or work experience.

The following courses (or the equivalent) are strongly recommended:

- One semester of elementary algebra (MATH 40 or ET 108B) completion of a higher level math class.
- Two semesters of chemistry (CHEM 32,40)
- One semester of biology (BIO 11)

Courses Required for the Certificate of Accomplishment in Genomics Technology

The requirements for the certificate are completion of the following courses with a grade of C or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 201 Introduction to Bioinformatics ..............</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 202 Advanced Bioinformatics and Genomics ..........</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 115 Recombinant DNA Biotechnology ................</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 24 Introduction to PCR ................................</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 25 Analytical PCR Technology .....................</td>
<td>1</td>
</tr>
<tr>
<td>CS160A Introduction to the UNIX Operating System ......</td>
<td>2</td>
</tr>
</tbody>
</table>

Total units ...................................... 13

The following course is recommended but not required:

CS113A Introduction to PERL programming ............ 3

Stem Cell Technology Certificate

The stem cell technology certificate program is designed to prepare students to work at a biotech company or an academic research lab as a technician in mammalian cell culture or adult and embryonic stem cell culture. The stem cell technology certificate is designed for students that have earned the biomanufacturing or biotechnology certificate or have a strong grasp of algebra, biology, and chemistry from precious academic or work experience.

Admission. The following courses (or the equivalent) are strongly recommended:

1. One semester of elementary algebra (MATH 40 or ET 108B) completion of a higher level math class.
2. Two semesters of chemistry (CHEM 32, 40) or (CHEM 101A, 208A)
3. One semester of biology (BIO 11) or (BIO 100A)
Courses Required for the Certificate of Accomplishment in Stem Cell Technology
Students must complete the following courses with a grade of C or better:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 21A Mammalian Cell Culture</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 21B Fluorescent Cell Technology</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 21C Stem Cell Technology</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 22 Immunoassay: ELISA</td>
<td></td>
</tr>
<tr>
<td>BTEC 23 Western Blotting Techniques</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 24 Introduction to PCR</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 25 Analytical PCR Technology</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>11</td>
</tr>
</tbody>
</table>

Recommended electives: M B 12; GEN 10, 11; BIO 91

Engineered Plumbing Systems Certificate
Students may obtain the Certificate of Accomplishment in Engineered Plumbing Systems by completing the following courses with the average final grade of C or higher. (The Engineering and Technology Department may require students who have had limited training and experience in dealing with engineered plumbing systems to complete additional courses before awarding the Certificate of Accomplishment.)

Courses Required for the Certificate of Accomplishment in Engineered Plumbing Systems

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 139A Engineered Plumbing Systems</td>
<td>3</td>
</tr>
<tr>
<td>ET 139B Engineered Plumbing Systems</td>
<td>3</td>
</tr>
<tr>
<td>ET 139C Engineered Plumbing Systems</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>9</td>
</tr>
</tbody>
</table>

Environmental Control Technology Certificate
Environmental Control Technology is a technical program offering theoretical, technical, and problem-solving skills essential for employment in the heating, ventilation, & air conditioning (HVAC) industry and the refrigeration industry. Students completing the suggested curriculum can seek employment as refrigeration technicians, HVAC technicians, and building engineers/technicians.

Upon completion of this training program, students will be qualified for positions as technicians who operate and maintain mechanical heating and cooling systems in buildings. Technicians ensure that HVAC equipment operates safely, economically, and within established limits by monitoring meters, gauges, and computerized controls. When necessary, they manually control equipment and make adjustments using hand and power tools. They also routinely check safety devices, record data in logs, and identify any potential problems.

Students may obtain the Certificate of Accomplishment in Environmental control Technology by completing the following courses with a grade of C or higher in each course. Students must complete at least 6 of the 10 courses at City College of San Francisco.

Courses Required for the Certificate of Accomplishment in Environmental Control Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 108A Practical Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 101 Electronics I: Electronic Meas &amp; Passive Circ</td>
<td>3</td>
</tr>
<tr>
<td>ENRG 140 Principles in Environmental Control</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 141 Blueprint Reading for HVAC</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 142 Codes and Standards for HVAC</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 143 Motors and Drives in HVAC</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 144 Fundamentals of Air Conditioning</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 145 HVAC Duct System Design</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 146 Refrigeration Installation and Troubleshoot</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 147 Energy Management and Efficiency</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>14</td>
</tr>
</tbody>
</table>

Sustainability Certificate
The Sustainability Certificate Program is designed for working professionals, business owners, and students working towards a degree who wish to understand and apply sustainability concepts to their existing or future educational pathways as well as careers. Participants may obtain the certificate by completing the following courses at City College of San Francisco with a grade of C or higher in each course. The certificate can be awarded in as early as two semesters or can be completed over several years.

Learning Outcomes
Students in the Sustainability Certificate Program (SUST) will acquire in-depth knowledge of human impacts on the environment as well as principles and practices to promote environmental protection, economic viability, and social equity in their careers and given fields of interest. Upon completion of the certificate, students will be able to:

- Analyze the scientific evidence underlying environmental and resource issues and relate the findings to their political, social, and historical context.
- Compare and contrast the pivotal role that energy occupies in modern society and the ongoing tension between sustainability and energy provisioning and management.
- Analyze the science and mechanisms, and appraise the benefits and negatives attributed to the most promising renewable energy sources as well as the most prevalent sources of energy in use today.
- Critically evaluate proposed solutions to environmental and resource issues especially for their integration of environmental, economic and social goals.
- Apply principles and practices of sustainability to their lifestyle choices and chosen professions.

Courses Required for the Certificate of Accomplishment in Sustainability

Core Courses (11 units):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 31 Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>ENRG 3 Introduction to Alternative Energy</td>
<td>3</td>
</tr>
<tr>
<td>GNBS 125 Green and Sustainable Business</td>
<td>3</td>
</tr>
<tr>
<td>SUST 91 Applied Research in Sustainability</td>
<td>2</td>
</tr>
</tbody>
</table>

Completion of 6 units from the following list of Elective Courses:

Biology Department

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 20 Introduction to Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 26 Habitat Restoration Field Studies</td>
<td>1</td>
</tr>
<tr>
<td>BIO 30 Ecology and the Human Environment</td>
<td>3</td>
</tr>
<tr>
<td>ECOL 20 Introduction to Ecology with</td>
<td></td>
</tr>
<tr>
<td>Laboratory/Field Study</td>
<td>4</td>
</tr>
</tbody>
</table>

Business Department

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNBS 127 Green and Sustainable Organization Practices</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 180 Eco-Travel &amp; Tourism</td>
<td>3</td>
</tr>
</tbody>
</table>

Earth Sciences Department

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 1 Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4 Cultural Geography</td>
<td>3</td>
</tr>
</tbody>
</table>
GEOG 7 Economic Geography .................. 3
GEOG 41A Current Topics in
Earth Science: Climate Change .................. 1
GEOL 30 Environmental Geology .......... 3
GEOL 30L Environmental Geology Lab .......... 1

Engineering and Technology Department
BTEC 223 Introduction to Environmental
Monitoring ................................................ 1
ENRG 3L Introduction to Alternative
Energy Laboratory ........................................ 1
ENRG 130 Residential Energy and
Efficiency Measures ................................ 2
SUST 91 Applied Research in Sustainability ........ 2

Social Sciences Department
POLS 22 Environmental Politics and Policy .......... 3

Total Units .................................................. 17

Basic Electronics Certificate

Learning Outcomes
Students will develop an understanding of the fundamental principles of electronics and will be able to apply this knowledge and understanding to perform tests, troubleshooting and repair of analog and digital electronic circuits and instruments.

Courses Required for the Certificate of Accomplishment
in Basic Electronics

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 50 Technical Math</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 101 Electronics I: Electronic Measurements</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 102A Electronics II: Basic Act Ana Cir</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 102B Electronics II: Basic Digi Cir &amp; Meas</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>13</td>
</tr>
</tbody>
</table>

Intermediate Electronics Certificate

Students may obtain the Certificate of Accomplishment in Intermediate Electronics by completing the following courses with a grade of C or higher in each course. A minimum of two of the courses must be taken at City College of San Francisco.

Courses Required for the Certificate of Accomplishment
in Intermediate Electronics

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 103A Electronics III: Inter Ana Cir &amp; Meas</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 103B Electronics III: Inter Digi Cir &amp; Meas</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 104A Electronics IV: Ana &amp; Digi Comm</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 104B Electronics IV: Micro-control Intf.</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>12</td>
</tr>
</tbody>
</table>

Computer Aided Design (CAD)-Architectural Certificate

Students in the Computer Aided Design (CAD)-Architectural program will develop the skills to effectively and efficiently develop drawings using various software programs such as AutoCAD and Revit. These skills are acquired in drawing and editing tasks essential for employment in architectural and construction industries. The students also develop a strategic understanding of which software or technique is most effective for a particular goal, learn how to draw and dimension precisely, become familiar with CAD standards and their purpose, and will have a significant amount of practice creating a wide variety of 2-dimensional models.

Requirements for the Certificate of Accomplishment. Students may obtain the certificate of accomplishment in Computer Aided Design (CAD)-Architectural by completing the following courses with a grade of C or higher in each course.

Courses Required for the Certificate of Accomplishment
in Computer Aided Design (CAD)-Architectural

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 20 Orthographic Projection &amp; Perspective ................</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 52A Architectural CADD ..................................</td>
<td>3</td>
</tr>
<tr>
<td>AND three courses from the following:</td>
<td></td>
</tr>
<tr>
<td>CAD 183 Advanced Computer Aided Drafting ......................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 184 Structural CAD Drafting ................................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 187 HVAC/Pipe CAD Design ..................................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 188 Adv. CAD-Customizing &amp; AutoLISP .......................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 190 Adv. CAD-Intro to SolidWorks ..........................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 191 Adv. CAD-Rendering &amp; Animation .........................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 192 Adv. CAD-CAD Based Multimedia ..........................</td>
<td>3</td>
</tr>
<tr>
<td>Total Units ..................................................</td>
<td>15</td>
</tr>
</tbody>
</table>

Computer Aided Drafting (CAD) Certificate

Students in the CAD program will develop the skills to effectively and efficiently develop drawings using the AutoCAD software program. These skills are acquired in drawing and editing tasks essential for employment in architectural, engineering, construction and manufacturing industries. The students also develop a strategic understanding of which software or technique is most effective for a particular goal, learn how to draw and dimension precisely, become familiar with CAD standards and their purpose, and will have a significant amount of practice creating a wide variety of 2-dimensional and 3-dimensional models.

Students may obtain the Certificate of Accomplishment in Computer Aided Drafting by completing the following courses with a grade of C or higher in each course.

Courses Required for the Certificate of Accomplishment
in Computer Aided Drafting

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 180 Intro to Technical Drawing ................................</td>
<td>1</td>
</tr>
<tr>
<td>CAD 181 Intro to Comp Aided Drafting-CAD I ....................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 182 Inter Comp Aided Drafting-CAD II ......................</td>
<td>3</td>
</tr>
<tr>
<td>AND three courses from the following:</td>
<td></td>
</tr>
<tr>
<td>CAD 183 Adv Comp Aided Drafting-3D Mod ........................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 184 Structural CAD Drafting ................................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 187 HVAC/Pipe CAD Design ..................................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 188 Adv CAD-Customizing &amp; AutoLISP ........................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 190 Adv CAD-Intro to Solid Works ..........................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 191 Adv CAD-Rendering &amp; Animation ..........................</td>
<td>3</td>
</tr>
<tr>
<td>CAD 192 Adv CAD-CAD Based Multimedia ...........................</td>
<td>3</td>
</tr>
<tr>
<td>Total Units ..................................................</td>
<td>16</td>
</tr>
</tbody>
</table>

Manufacturing and Metal Fabrication

This certificate program is designed to provide the students with a broad range of skills related to industries utilizing welding, machining,
and fabrication processes. This training program also prepares students to enter several trade union apprentice programs.

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Manufacturing and Metal Fabrication by completing the following courses with a grade of C or higher. A minimum of three of the courses must be taken at City College of San Francisco.

Courses Required for the Certificate of Accomplishment in Manufacturing and Metal Fabrication

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 140 Manufacturing Processes</td>
<td>3</td>
</tr>
<tr>
<td>WELD 144 Welding Processes</td>
<td>2</td>
</tr>
<tr>
<td>WELD 146 Manufacturing Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>WELD 147 Welding Inspection Technology</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>12</td>
</tr>
</tbody>
</table>

Geographic Information Systems (GIS) Certificate

Learning Outcomes

Students will develop an understanding of the fundamental concepts and practice of Geographic Information Systems (GIS) and will be able to apply this knowledge and hands-on skills to various fields including, but not limited to, planning, engineering, geography, criminology, real estate, biotech, public utilities, transportation, forestry, ecology, resource management, emergency response, business/marketing.

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Geographic Information Systems (GIS) by completing the following courses with a grade of C or higher in each course. A minimum of two of the courses must be taken at City College of San Francisco.

Courses Required for the Certificate of Accomplishment in Geographic Information Systems (GIS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG/GIS 110 Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/GIS 111 Intermediate GIS Applications</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/GIS 112 Advanced GIS</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>9</td>
</tr>
</tbody>
</table>

Announcement of Courses

Biomedical Equipment Technology

Credit, Degree Applicable Courses:

BMET 250. Introduction to Biomedical Instrumentation (3)
Lec-3
Prereq.: ANAT 14 and ELEC 101
A study of biomedical instrumentation and equipment used in the health care field emphasizing critical care applications. Bioelectric potentials will be examined and analyzed with electrocardiographs, electroencephalographs, and similar equipment. Other subjects reviewed include but are not limited to: blood pressure, flow and heart sounds, operation principles of transducers, patient monitors, equipment defibrillators and pacers. CSU

BMET 251. Introduction to Medical Equipment (3)
Lec-3, field trips
Prereq.: BMET 250
Managing multi-vendor medical equipment maintenance in compliance with state regulatory requirements and standards of hospital and health organizations is covered in this course. CSU

BMET 252. Biomedical Instrumentation - Surgical Equipment (1)
Lec-9, lab-27 (total hrs)
Prereq.: BMET 250
This short course is a part of a series of courses covering biomedical instrumentation. Course contents include the theories of operation, circuit analyses, troubleshooting techniques, and medical applications of a variety of medical devices commonly found in Operating Rooms (ORs). CSU

BMET 253. Biomedical Instrumentation - Medical Imaging Equipment (1)
Lec-9, lab-27 (total hrs)
Prereq.: BMET 250
This short course is a part of a series of courses covering biomedical instrumentation. Course contents include the theory of operation, circuit analysis, troubleshooting techniques, and medical applications of a variety of medical imaging systems. CSU

BMET 254. Biomedical Instrumentation - Respiratory (1)
Lec-9, lab-27 (total hrs)
Prereq.: BMET 250
This short course is a part of a series of courses covering biomedical instrumentation. This course focuses on anesthesia care equipment - its theory of operation, internal circuitry, troubleshooting techniques, maintenance, calibrating, and medical application in Intensive Care Units and Operating Rooms. CSU

BMET 255. Biomedical Instrumentation - Anesthesia Equipment (1)
Lec-9, lab-27 (total hrs)
Prereq.: BMET 250
This short course is a part of a series of courses covering biomedical instrumentation. This course focuses on anesthesia care equipment - its theory of operation, internal circuitry, troubleshooting techniques, maintenance, calibrating, and medical application in Intensive Care Units and Operating Rooms. CSU

BMET 256. Biomedical Instrumentation - Medical Equipment Networking Overview (1)
Lec-9, lab-27 (total hrs)
Prereq.: BMET 250
This short course is a part of a series of courses covering biomedical instrumentation. This course focuses on medical device networking, its relationship with hospital communication protocols, and identifying and troubleshooting linked multiple systems. CSU

BMET 257. Biomedical Instrumentation - Cardiologic Equipment Monitoring (1)
Lec-9, lab-27 (total hrs)
Prereq.: BMET 250
This short course is a part of a series of courses covering biomedical instrumentation. This course focuses on patient cardiological monitoring - real-time as well as diagnostic monitoring - order to perform systems level troubleshooting. CSU

Biotechnology

Credit, Degree Applicable Courses:

BTEC 5. Briefings in Biotechnology (1)
Lec-2 (9 wks), field trips P/NP available
Underlying principles of molecular biology and the laboratory procedures involved in the biotechnology industry. Examples of new products, processes, and prospects for the future in medicine, environmental restoration, forensics, and agriculture. Implications for society
BTEC 6. Basics of Cell Culture (1)
Lec-9, lab-27 (total hrs) P/NP available

Advise: BTEC 5
Introduction to cell culture and stem cell biology and techniques. Topics include aseptic techniques, counting cells, cell/stem cell culture maintenance, transfection, cytotoxicity, fluorescence labeling and stem cell differentiation. Practical experience includes use of common laboratory equipment such as micropipettes, centrifuges, inverted and fluorescent microscopes. CSU

BTEC 10. Research Skills for Career Opportunities in Biology (2)
Lec-1, lab-3, field trips P/NP available
Introduction to the skills and concepts necessary to work in the biotechnology industry, allied health or other biology-related fields. Basic concepts and lab skills will be taught at the college. Formerly Bio 72B.

BTEC 12A. GLP and GMP Principles (1)
Lec-18 (total hrs), field trips P/NP available
General overview of Food and Drug Administration regulations as they pertain to the biotechnology field. The course will emphasize cGLP, cGMP and SOP practices that pertain to biopharmaceutical laboratory and manufacturing facilities. CSU

BTEC 12B. GMP Compliance (1)
Lec-18 (total hrs), field trips P/NP available
Prereq.: BTEC 12A
Detailed discussion of the systems (procedures and documents) required to achieve compliance with the FDA Good Manufacturing Practice regulations as they relate to biopharmaceutical manufacturing. CSU

BTEC 14A. Biotechnology Laboratory Techniques (2)
Lec-1.5, lab-1.5
Prereq.: Completion/concurrent enrollment in BTEC 10
A laboratory focused introduction to laboratory techniques needed for entry-level positions in the biotechnology industry, especially in the research field. CSU

BTEC 14B. Biotechnology Internship Support (4)
Lec-4, field trips
Prereq.: BTEC 14A
Coreq.: BTEC 93
This class provides the necessary tools for students placed in biotechnology-related internships in Bay Area bioscience laboratories and companies. Types of internships may include, but are not limited to, glassware washers, laboratory assistants, animal technicians, biomanufacturing technicians, calibration technicians, environmental health and safety technicians, quality control or assurance technicians. CSU

BTEC 15. Organizing a Scientific Conference (2)
Lec-32, lab-16 (total hrs) P/NP Only
Prereq.: BTEC 14A
Repeat: max. 6 units
This class provides students with an overview of Bay Area Biotech companies and institutes and the skills to network with professionals. Students will use these skills to organize and run a scientific conference with poster presentations, professional workshops and seminars where they will connect with Biotech professionals and other students. CSU

BTEC 21A. Mammalian Cell Culture (2)
Lec-36, lab-18 (total hrs), field trips P/NP available
Advise: Bio 11 or 101A; and Chem 32 or 40 or 101A; and Math 40 or ET 108A
Introduction to techniques for culturing mammalian cells, including media preparation, sterile technique, freezing, thawing, subculturing, and maintaining cells. Theory includes the selection of media, maintaining sterile conditions, preventing contamination, as well as cellular responses to DNA damage and gene expression. Practical experience includes proper use and care of equipment for culturing cells. CSU

BTEC 21B. Fluorescent Cell Technology (2)
Lec-36, lab-18 (total hrs), field trips P/NP available
Prereq.: BTEC 21A
Introduction to advanced techniques in the study of normal and mutant tissue culture cells including organelle visualization with various fluorophores, transfection with fluorescent markers, and immunostaining. In-depth coverage of the theory behind and use of fluorescent microscopy and current research methods using fluorescent technology, including apoptosis assays and immunohistochemistry, DNA microarrays and FACS analysis. CSU

BTEC 21C. Stem Cell Technology (3)
Lec-48, lab-24 (total hrs), field trips P/NP available
Prereq.: BTEC 21B
A general introduction to the principles of stem cell biology. Topics include embryonic stem cells in early development, adult stem cells, potential applications of stem cell culture and ethical issues involved in stem cell research. Emphasis on laboratory techniques including proper use and care of equipment, flow cytometry, isolation of mouse adult stem cells, and culture of mouse embryonic stem cells. CSU

BTEC 21D. Stem Cell Technology Internship Support (4)
Lec-4
Prereq.: BTEC 21C
Coreq.: BTEC 93
Provides the necessary tools for students placed in off-campus stem cell biology internships in companies and research laboratories. Types of internships may include, but not be limited to, differentiation of pluripotent stem cells, FACS analysis, primary cell culture, propagation of iPSC cells, immunolocalization, microarray analysis, and tumor cell characterization.

BTEC 22. Immunoassay: ELISA (1)
Lec-14, lab-10 (total hrs), field trips P/NP available
Underlying principles of immunoassay with focus on ELISA. Examples of new procedures, technical advances, past, present and future prospects in the pharmaceutical, biotechnology and clinical laboratory settings will be discussed. Implications for society and governmental regulations will be addressed. Course will feature hands-on exercises emphasizing all aspects of ELISA. CSU

BTEC 23. Western Blotting Techniques (1)
Lec-16, lab-8 (total hrs), field trips P/NP available
Underlying principles of immunoblotting with focus on Western blotting. Examples of new procedures, technical advances, past, present and future prospects in the pharmaceutical, biotechnology and clinical laboratory settings will be discussed. Implications for society and governmental regulations will be addressed. Course will feature hands-on exercises emphasizing all aspects of Western blotting. CSU
BTEC 24. Introduction to PCR (1)
Lec-16, lab-8 (total hrs), field trips P/NP available
An introduction to the theoretical aspects and laboratory techniques of the Polymerase Chain Reaction (PCR). Students gain practical experience performing PCR as well as experimenting with optimization of the reaction. Applications of PCR used in DNA fingerprinting, diagnostic medicine, genome mapping, evolutionary relationship determination, and epidemiology will be discussed. CSU

BTEC 25. Analytical PCR Technology (1)
Lec-16, lab-8 (total hrs), field trips P/NP available
Prereq.: Completion of BTEC 24 or demonstration of BTEC 24 exit skills
A course in the theory and practice of current polymerase chain reaction (PCR) analytical methods. Students will gain laboratory experience in performing techniques such as reverse transcriptase PCR (RT-PCR), real-time PCR, inverse PCR, construction of oligonucleotide DNA microarrays, site-directed mutagenesis, and strategies for cloning genes from organisms lacking genome projects. Experimental optimization will be emphasized. CSU

BTEC 26EX. Southern and Northern Blotting (.5)
Lec-16, lab-8 (total hrs), field trips P/NP available
Advise: BIO II or 101A or 65
An advanced course in molecular biology techniques that extends on topics covered in Biology 65. Students will become proficient in the skills of Southern and Northern blotting. Students will isolate nucleic acid (DNA and RNA), prepare them for the appropriate agarose gel electrophoresis protocols, prepare DNA probes, set-up nucleic acid hybridizations, and complete and interpret non-radioactive Southern and Northern blots. CSU

BTEC 93. Biotechnology Work Experience (1, 2, 3, 8)
Work exp.-5, 10, 15 or 40 hrs P/NP available
Students will be able to get work experience through internships while working towards their A.S. in biotechnology. This valuable industry experience will help train them for future jobs in biotechnology. In addition, they will apply their skills gained from previous biotechnology courses to real life laboratory situations. CSU

BTEC 101. Fermentation and Protein Purification (5)
Lec-4, lab-4, field trips P/NP available
Prereq.: CHEM 32
Skills needed to serve as a technician in biotechnology production. Students grow and monitor cultures emulating the large-scale production used in industry. Cleaning, sterilization, aseptic inoculation, operation and monitoring of fermenters and bioreactors. Recover and purify proteins produced by those cell cultures. Current Good Manufacturing Practices (cGMP), Current Good Laboratory Practices (cGLP) and Standard Operating Procedures (SOP) will be emphasized. CSU

BTEC 107/ET 107. Language Skills for Technicians (3)
Lec-3, conf-1
Introductory level lecture course covering basic scientific language and concepts of biology and chemistry, and the academic study skills needed to succeed in science courses. An orientation to the field of biotechnology and professional opportunities. CSU

BTEC 108A. Practical Mathematics I (3)
Lec-3, conf-1
Concepts, techniques and applications of arithmetic and elementary algebra emphasizing applications to practical problems. Interactive and traditional problem solving methods. Class interactive group exercises applying mathematical techniques to various applications and real world problems.

BTEC 115. Recombinant DNA Biotechnology (5)
Lec-3, lab-6, field trips P/NP available
Advise: BIO II
An in-depth coverage of recombinant DNA/genetic engineering concepts and principles with a strong emphasis on the laboratory procedures involved in DNA manipulation. CSU
Formerly BIO 65.

BTEC 201. Introduction to Bioinformatics (2)
Lec-36 (total hrs) P/NP available
Advise: CNIT 100, BIO II or BIO 100A; CHEM 32 or CHEM 40;
Introduction to genomics and the tools, techniques and databases used in bioinformatics. Topics include molecular biology, genome sequence acquisition, online databases and software used in biotechnology.
Hands-on practice includes web programs for aligning sequences, comparing DNA or protein sequences, retrieving genomic and clinical data. Emphasis is on online bioinformatics databases. CSU

BTEC 202. Advanced Bioinformatics and Genomics (2)
Lec-36 (total hours) P/NP available
Prereq.: BTEC 201
Advanced topics in genomics and bioinformatics including applications to problems such as human disease, forensics, and agriculture.
Topics include integrated genomic databases, protein alignments, protein families, protein structure, proteomics, and microarrays. Critical background material in molecular and cell biology will be presented in the course. CSU

BTEC 221. Biotech Process Instrumentation (2)
Lec-1, lab-3
Prereq.: ET 108A/BTEC 108A/CDEV 108A or MATH 40 or demonstration of ET 108A or MATH 40 exit skills
BTEC 221=ELEC 221

BTEC 222. Biotech Calibration and Validation (1)
Lec-9, lab-27 (total hours)
Prereq.: BTEC 221
An introduction to the theory and application of calibration and validation as applied to the Biotechnology Industry. CSU
BTEC 223. Introduction to Environmental Monitoring (1)
Lec-0.5, lab-1.5, field trips P/NP available
Study of regulations, protocol and procedures for collection and storage of air, soil and liquid samples. Quality assurance/quality control, safety, site selection, sample storage and preservation. Practical experience includes use of portable instruments and immunoassay kits for chemical contaminants. Microbiological laboratory techniques for analysis of soil and water samples. CSU
BTEC 223=BIO 223

Computer Aided Drafting (CAD)

Credit, Degree Applicable Courses:
CAD 180. Introduction to Technical Drawing (1)
Lec.-.5, lab-1.5
Introduction to engineering and technical drawing techniques, the systems of drawings and their applications in drafting, and the basic shape description of products. Technical sketching; dimensioning; sections and applications of orthographic projection standards in technical documents. CSU

CAD 181. Introduction to Computer Aided Drafting - CAD I (3)
Lec-2, lab-3
Prereq.: CAD 180, or ET 104, or 1 yr HS drafting or consent of instructor
Repeat: max. 6 units
Students must have an understanding of orthographic projection, isometric drawing techniques and dimensioning according to ANSI standards.
Introduction to CAD hardware and software operations and their applications in drafting; basic shape description, display, editing, dimensioning and plotting. CSU/UC
Formerly ET 181.

CAD 182. Intermediate Computer-Aided Drafting - CAD II (3)
Lec-2, lab-3
Prereq.: CAD 181 or demonstration of CAD 181 exit skills (equivalent course work or 100 hrs of AutoCAD industrial work experience)
Industrial application of AutoCAD drawing editor on large- scale projects. Various topics include model layout, plotting to scale, blocks, external referenced files, attributes and extraction of “non-graphic” data stored within the drawing files, the control of display to reduce regeneration time, three-dimensional coordinate system, 3D wireframe and surface modeling, the operation of various hardcopy output devises including pen plotting and printer plotting. CSU
Formerly ET 182.

CAD 183. Advanced Computer Aided Drafting - 3D Modeling (3)
Lec-2, lab-3
Prereq.: CAD 181 or demonstration of CAD 181 exit skills (equivalent course work or 200 hrs of AutoCAD industrial work experience)
Introduction to three-dimensional (3D) modeling, application of computer aided drafting software for the creation of wireframe, surface, and solid modeling. CSU
Formerly ET 183C.

CAD 184. Structural CAD Drafting (3)
Lec-2, lab-3
Prereq.: ARCH 52A, CAD 181 or demonstration of CAD 181 exit skills (equivalent course work or 200 hrs of AutoCAD industrial work experience)
Structural design theory. Use of Computer Aided Drafting (CAD) to generate steel and concrete details. CSU
Formerly ET 184.

CAD 187. HVAC/Pipe CAD Design (3)
Lec-2, lab-3
Prereq.: ARCH 52A or CAD 181 or equivalent training
HVAC and Piping system design theory. Introduction to computer generated documents to specify HVAC (Heating, Ventilation and Air Conditioning) and piping systems layout and details. This course will have a mechanical design emphasis, introducing terms and component equipment common to these systems. Emphasis will be placed on the standards used for process pipe and HVAC industry drawings. Design theory will include the determination of equipment sizes. CSU
Formerly ET 187.

CAD 188. Advanced Computer Aided Drafting – Customizing and AutoLISP (3)
Lec-2, lab-3
Prereq.: CAD 181 or demonstration of CAD 181 exit skills (equivalent course work or 100 hours of AutoCAD industrial work experience)
An introduction to the customization and automation of AutoCAD for the application to any specific discipline. Emphasis is on the improvement of drawing productivity by enhancing AutoCAD’s capabilities. The course will include creating various menus, creating custom macros, instruction on the use of existing AutoLISP programs and introduction to programming in AutoLISP. CSU

CAD 190. Advanced Computer Aided Drafting - Introduction to SolidWorks (3)
Lec-2, lab-3
Overview of extending CAD-based graphics into 3-dimensional parametric modeling, realistic rendering, animation of assemblies, and exploded views. Introduction to related software (such as SolidWorks and Inventor). Experience creating a computer-generated physical 3D model using a state-of-the-art 3D printer. CSU

CAD 191. Advanced Computer-Aided Drafting - Rendering and Animation (3)
Lec-2, lab-3
Prereq.: CAD 181 or demonstration of CAD 181 exit skills (equivalent course work or 100 hrs of AutoCAD industrial work experience)
Introduction to computer generated rendered images and animation. CSU
Formerly ET 183D.

CAD 192. Advanced Computer Aided Drafting - CAD Based Multimedia (3)
Lec-2, lab-3
Prereq.: CAD 181 or equivalent course work or 100 hours of industrial work experience in basic AutoCAD
Overview of extensions of CAD-based graphics into various types of media, including illustration, rendering, animation, and output to an interactive presentation, print, and web page design. CSU
**Electronics**

**Credit, Degree Applicable Courses:**

Lec-2, lab-3
Prereq.: ELEC 101 or demonstration of ELEC 101 exit skills
This course covers the construction and analysis of basic electronic circuits including capacitors and inductors. The student will learn to use the multi-meter to measure DC and AC voltages and currents in resistive series/parallel circuits and the oscilloscope to measure AC and pulsed waveforms, and phase and time delay measurements. The student will also learn the use of computer simulation software to analyze circuits. CSU

**ELEC 102A. Electronics II: Basic Active Analog Circuits and Measurements (3)**
Lec-2, lab-3
Prereq.: ELEC 101 or demonstration of ELEC 101 exit skills
This course covers diode characteristics, DC power supplies, bipolar transistors, simple one-stage amplifiers, constant current sources, and transformers. The student will learn the intermediate use of the oscilloscope and multi-meter. There will be an emphasis on electronic projects. CSU

**ELEC 102B. Electronics II: Basic Digital Circuits & Measurements (3)**
Lec-2, lab-3
Prereq.: ELEC 101 or demonstration of ELEC 101 exit skills
This course covers Boolean logic concepts, flip-flops, memory, counters and clocks, display decoders and timers. The student will learn the analysis of digital logic principles by building and testing basic functional digital electronics kits. CSU

**ELEC 103A. Electronics III: Intermediate Analog Circuits and Measurements (3)**
Lec-2, lab-3
Prereq.: ELEC 102A and 102B or demonstration of ELEC 102A and 102B exit skills
This course is an introduction to modern analog electronic circuits, including field effect transistor basics, analog amplifiers, and operational amplifiers. CSU

**ELEC 103B. Electronics III: Intermediate Digital Circuits and Measurements (3)**
Lec-2, lab-3
Prereq.: ELEC 102A and 102B or demonstration of ELEC 102A and 102B exit skills
This course covers hardwired digital logic systems and is an introduction to programmable logic devices. CSU

**ELEC 104A. Electronics IV: Analog and Digital Communications Electronics (3)**
Lec-2, lab-3
Prereq.: ELEC 102A and 102B or demonstration of ELEC 102A and 102B exit skills
This course covers analog and digital communications systems, antennas, and serves as an introduction to microwave signals. CSU

**ELEC 104B. Electronics IV: Micro-controller Interfacing (3)**
Lec-2, lab-3
Prereq.: ELEC 102A and 102B or demonstration of ELEC 102A and 102B exit skills
This course covers micro-controller interfacing, driver programs, input sensors and output electrical and electro-mechanical devices. CSU

**ELEC 211. Fiber Optic Technology (3)**
Lec-3, lab-3
Prereq.: ET 108A or MATH 40, or demonstration of ET 108A or MATH 40 exit skills
Covers fundamental principles and hands-on application of modern fiber optic technology, preparing students to use current technology and giving them the basis required to adapt to future developments. Topics include telecommunications, optics, fiber fabrication, splicing, and termination, lasers, LEDs, detectors and optical amplifiers, optical protocols including FDDI and SONET, and network design and troubleshooting. Students will perform many hands-on labs using fiber optic cable and related equipment. CSU

ELEC 221 = CNIT 221

**ELEC 221. Biotech Process Instrumentation (2)**
Lec-1, lab-3
Prereq.: ET 108A or MATH 40 or demonstration of ET 108A or MATH 40 exit skills

ELEC 221 = BTEC 221

**Energy**

**Credit, Degree Applicable Courses:**

**ENRG 3. Introduction to Alternative Energy (3)**
Lec-3
Advise: Concurrent enrollment in ENRG 3L
An introduction to the theory, applications, and usefulness of various alternative energies as they relate to the future of our civilization and the environment. Topics will include solar thermal energy, solar photovoltaics, bioenergy, fuel cells, hydroelectric power, wave energy, and wind energy. CSU/UC

**ENRG 3L. Introduction to Alternative Energy Laboratory (1)**
Lab-3
Coreq.: ENRG 3
A project-oriented, hands-on course to introduce students to renewable energies. CSU/UC

**ENRG 130. Residential Energy and Efficiency Measures (2)**
Lec-1, lab-3
P/NP available
This introductory course provides a general overview of residential energy use. It briefly covers residential energy related systems and how building energy efficiencies may be improved. CSU

ENRG 130 = CNST 130

**ENRG 140. Principles in Environmental Control (1)**
Lec-9, lab-27 (total hrs)
Prereq.: Completion or concurrent enrollment in ET 108A and ELEC 101
Introduction to fundamentals of electricity and electronics as applied to Heating, Ventilation, and Air Conditioning (HVAC) operations.
Covers Ohm’s law, power and electrical instruments, basic electrical AC and DC circuits, electrical and mechanical devices, and electrical and electronic controls. CSU

ENRG 141. Blueprint Reading for HVAC (1)
Lec-9, lab-27 (total hrs)
Prereq.: ENRG 140 and ET 108A
Basic techniques for reading and interpreting typical design documents, drawings, and specifications. Emphasis will be given on interpreting Heating, Ventilation, and Air Conditioning (HVAC) mechanical and electrical drawings, symbols, and abbreviations. CSU

ENRG 142. Codes and Standards for HVAC (1)
Lec-9, lab-27 (total hrs)
Prereq.: Completion of or concurrent enrollment in ET 108A
Introduction to national, state, and local regulations and standards that govern the design, installation, and operation of Heating, Ventilation, and Air Conditioning (HVAC) systems. Topics will also cover the code development process, its adoption, and its enforcement by local building authorities. CSU

ENRG 143. Motors and Drives in HVAC (1)
Lec-9, lab-27 (total hrs)
Prereq.: Completion of or concurrent enrollment in ET 108A and ELEC 101
Introduction to the application of motors and drives used in commercial and industrial Heating, Ventilation, and Air Conditioning (HVAC). Covers the theory and applications of different types of motors and drives, including electric and magnetic Variable Frequency Drives (VFD) for improved efficiency control and energy savings. CSU

ENRG 144. Fundamentals of Air Conditioning—Heating and Cooling (1)
Lec-9, lab-27 (total hrs)
Prereq.: ENRG 140
Advise: ET 135A, 135B, or 135C
Introduction to residential and light commercial heating and cooling air conditioning equipment. Emphasis will be on reading electrical diagrams, understanding sequences of operation of systems, performing service diagnosis procedures, and carrying out maintenance and repair. CSU

ENRG 145. HVAC Duct System Design (1)
Lec-9, lab-27 (total hrs)
Prereq.: Completion of or concurrent enrollment in ET 108A and ENRG 144
Advise: ET 135A, 135B, or 135C
Introduction to duct system installations of residential and light commercial HVAC systems. Topics include proper procedures for air system distribution and balance, mechanical devices, ventilating equipment, filtration systems, flue pipes, and duct pipes (flex, square and rigid). CSU

ENRG 146. Refrigeration Installation and Troubleshooting (1)
Lec-9, lab-27 (total hrs)
Prereq.: ELEC 101
Coreq.: ET 135C
Introduction to installation and troubleshooting practices on refrigeration equipment. Covers electrical diagrams, service diagnostic procedures, maintenance, troubleshooting and repair, system charging, leak testing, evacuating and recovering methods, and safety practices. CSU

ENRG 147. Energy Management and Efficiency in Environmental Control (1)
Lec-9, lab-27 (total hrs)
Prereq.: ENRG 140 and completion of or concurrent enrollment in ET 108A
Advise: CNIT 100 or similar skills, ENRG 141
Introduction to energy auditing and management. Covers life cycle costing and improvement of energy efficiency through simulations of building heating, cooling, lighting, ventilating, and other energy flows. The class introduces energy analysis software tools such as EnergyPlus, Cal Arch, and DOE-2. SCU

Engineering
Credit, Degree Applicable Courses:
ENRG 1A. Measurements and Plane Surveying (3)
Lec-2, lab-3
Prereq.: MATH 95 or ET 50 or equivalents (ea. concur.)
Theory and practice in linear and angular measurements. Equipment and methods used in common surveying measurements. Treatment of errors in measurements in surveying and other areas of engineering. CSU/UC

ENRG 1B. Plane Surveying (3)
Lec-2, lab-3
Prereq.: ENRG 1A
Theory and practice of various engineering surveying techniques including control surveys, practical astronomy, triangulation, topographic surveys, route surveys, land surveys, GPS surveys, stadia methods, state plane coordinates, photogrammetry, error analysis, curve layouts, and EDM methods. CSU

ENRG 10A. Intro. to Engineering: The Profession (1)
Lec-2
The history and development of engineering as a profession. Engineering disciplines, educational requirements, transfer school information, success strategies, professional ethics, current and projected activities in the various branches of engineering. CSU/UC

ENRG 10B. Intro. to Engineering: Software Tools and Design (2)
Lec-1, lab-3
Prereq.: MATH 55; 92; and 95
This course introduces the student to team oriented engineering design and problem solving processes as well as the use of computers in the solution of a wide variety of engineering problems. The course makes use of a variety of software applications including commercial spreadsheets such as Microsoft Excel and a graphics program such as Matlab in solving problems. Throughout the course, emphasis will be given to technical communications, teamwork, engineering design and problem solving methodologies. CSU/UC

ENRG 20. Introduction to Circuit Analysis (3)
Lec-3
Prereq.: ENRG 10B, Mathematics 110C and PHYC 4B, both of which may be taken concurrently and concurrent enrollment or completion of ENGR 20L
Introduction to circuit analysis to determine the natural, forced and complete responses of zero, first and second-order networks and systems. Standard circuit-analysis techniques will be covered including Kirchhoff’s Laws, loop and nodal analysis, Thévenin and Norton’s Theorems, generalized impedance and admittance techniques and phasor methods. CSU/UC ENGR 12
ENGN 20L. Introduction to Circuit Analysis Laboratory (1)
Lab-3
Prereq.: ENGN 10B; concurrent enrollment or completion of ENGN 20
Laboratory experiments in circuit analysis. CSU/UC

ENGN 24. Design Graphics (3)
Lec-2, lab-3, field trips
Prereq.: ET 50 or MATH 95; and ET 104; or demonstration of their exit skills
Introduction to technical sketching, engineering graphics and design; development of visualization skills by using computer aided drafting (CAD) software in conjunction with orthographic projection problems; emphasis on computer aided design and graphical analytical methods of solutions to three-dimensional problems. CSU/UC

Lec-3
Prereq.: ENGN 10B, PHYC 4A; and MATH 110C, which may be taken concurrently
An introductory course in applied mechanics (Statics); designed to meet the professional needs of students majoring in engineering. CSU/UC

ENGN 37. Engineering Mechanics - Dynamics (3)
Lec-3
Prereq.: ENGN 10B, 36
An introductory course in Dynamics including both Kinematics (the description of a rigid body's position, velocity and acceleration) and Kinetics (the relationship between the forces acting on a rigid body and its velocity and acceleration). Also includes the topics of work, energy, impulse and momentum. CSU/UC

ENGN 38. Introduction to Computing for Engineers (3)
Lec-3, conf-1
Prereq.: ET 51 or MATH 100A or completion/concurrent enrollment in MATH 110A
Engineering problem-solving using computer programming. Problem-solving strategies, algorithm development and structured programming design. Solution of a variety of engineering problems from evaluating a simple function to modeling and simulation. Applications from mechanical, electrical and civil engineering. CSU/UC

ENGN 45. Materials Science (3)
Lec-2, lab-3
Prereq.: Completion of ENGN 10B, CHEM 101A or 103A, PHYC 4A-4AL
Advis: Completion/concurrent enrollment in CHEM 101B and PHYC 4B-4BL
An introductory course in the fundamental science of materials used by engineers. Emphasis is placed on understanding the structure and properties of materials. Standard material properties are defined and explained. The processing and applications of materials are also covered. Finally, a strategy is developed for the selection and use of these materials. CSU/UC

ENGN 48L. Introduction to Engineering & Technology - Laboratory (1)
Lab-3
Repeat: max. 4 units
This is a project-oriented, hands-on course to introduce students to the practices and methodologies used in Engineering and Technology. Work will be in four areas: electronics, computer aided drafting, mechanical construction and fabrication and technical mathematics. CSU

ENGN 91. Applied Engineering Project (1)
Conf-1, work 10-20
Prereq.: ENGN 10A, ENGN 10B
Repeat: max. 6-12 units
On and off campus college project and research work experience with an external community partner or a CCSF faculty in the field of engineering and technology, subject to approval of and under the supervision of the course instructor. CSU

ENGN 99. Materials and Fabrication Shop (1)
Lab-3
Repeat: max. 4 units
A project-oriented, hands-on course to introduce students to the practices and methodologies used in fabricating architectural models or execution of three-dimensional designs using wood, metals and plastics. Students learn shop and cleanup procedures, safety procedures, and proper use of equipment and tools. CSU

ENGN 99=ARCH 99

Engineering Technology
Credit, Degree Applicable Courses:
ET 50. Technical Mathematics (4)
Lec-4
Prereq.: ET 108B/CDEV 108B; or MATH 90/92 and 95
Applied mathematics designed to develop ability to solve problems. Practical application of algebra, geometry, and trigonometry to basic problems in the applied sciences, including the study of alternating current circuitry with emphasis on periodic functions, vector analysis, logarithms, and exponential functions. CSU

ET 51. Advanced Technical Mathematics (4)
Lec-4
Prereq.: ET 50
Instruction in applied mathematics and physical science designed to develop the student's ability to solve fundamental engineering problems in mechanics and electronics. Introduction to analytical geometry, statistics, and calculus. CSU

ET 86. Introduction to Computer-Aided Manufacturing - CAM I (2)
Lec-1, lab-3
Prereq.: ET 104
Introduction to computer numerical control, training in G and M codes. Hands-on training on the CNC machines. Testing, debugging, and running programs. Includes processes used to describe product geometry in computer terms, modern practices in tolerancing, HVAC and piping. CSU

ET 104. Introduction to Engineering Drawing and Manufacturing (2)
Lec-1, lab-3
Fundamental drafting techniques including sketching, orthographic projection and dimensioning. Development of detailed drawings (electrical, electronic, and mechanical) for the fabrication of individual projects. Sheet metal shop practices; use of hand tools; measurement and layout techniques. Printed circuit board design and fabrication. Machine tools and machine shop operations. CSU
ET 107/BTEC 107. Language Skills for Technicians (3)
Lec-3, conf-1
Introductory level lecture course covering basic scientific language and concepts of biology and chemistry, and the academic study skills needed to succeed in science courses. An orientation to the field of biotechnology and professional opportunities. CSU
ET 107=BTEC 107

ET 108A. Practical Mathematics I (3)
Lec-3, conf-1
Concepts, techniques and applications of arithmetic and elementary algebra emphasizing applications to practical problems. Interactive and traditional problem solving methods. Class interactive group exercises applying mathematical techniques to various applications and real world problems.

ET 108A=CDEV 108A=BTEC 108A

ET 108B. Practical Mathematics II (3)
Lec-3, conf-1
Concepts, techniques, and applications of intermediate algebra and introductory trigonometry emphasizing real world applications. Interactive group exercises and traditional lecture - problem-solving methods. Demonstration of mathematical concepts by showing how they are applied to various fields such as medical, business, industrial, and scientific. Emphasis on problem solving and the application of mathematics to real world problems.

ET 108B=CDEV 108B

ET 122S. Lead in Construction, Supervisor/Contractor (1.5)
Lec-32, lab-9 (total hrs), field trips P/NP available
Preparation for interim certification as CA lead in construction supervisor/contractor. Lead uses, sources, characteristics, hazards, and safety; PPE and hygiene; monitoring, regulations and work practices; insurance and liability; record keeping; contract preparations, specifications, and administration; community relations.

ET 122S=WTR 231S

ET 122W. Lead in Construction, Worker (1)
Lec-22, lab-12 (total hrs), field trips P/NP available
Preparation for interim certification as CA lead in construction worker. Lead uses, sources, characteristics, hazards, and safety; PPE and hygiene; monitoring, regulations, and work practices.

ET 122W=WTR 231W

ET 135A. Fundamentals of Air-Conditioning and Refrigeration (2)
Lec-1.5, lab-1.5
One of a series of three courses. [See also ET 135B and 135C.]
Introduction to the design of air-conditioning systems. Application of air-conditioning equipment, components, and control system of the air-conditioning system in the laboratory. Instruments and instrumentation for measuring air flow.

ET 135A=CDEV 135A=BTEC 135A

ET 135C. Fundamentals of Air-Conditioning and Refrigeration (2)
Lec-1.5, lab-1.5
One of a series of three courses. [See also ET 135A and 135B.]
The refrigeration cycle, refrigeration systems, heat transfer components, and control systems. Laboratory work in operational characteristics; analysis of refrigeration system; and methods of measuring pressure, temperature, and flow rates within the system.

ET 139A. Engineered Plumbing Systems (3)
Lec-3
Flow of liquids in domestic water, rainwater and fuel gas piping systems, sanitary drainage piping and sizing drainage systems, flow of air in vent piping, sewer systems. Study of national and local codes, specifications and case problems.

ET 139B. Engineered Plumbing Systems (3)
Lec-3, field trips
Pressurized water, automatic fire sprinkler, wet and dry standpipe, fuel gas in buildings. Centrifugal pumps, national and local plumbing and fuel gas codes, specifications and case problems.

ET 139C. Engineered Plumbing Systems (3)
Lec-3
Review of plumbing, engineering design, codes, and specifications. Special projects in the field of plumbing engineering design. Copper system design.

GIS 110. Introduction to GIS (3)
Lec-2.5, lab-1.5
Prereq.: CNIT 100
A primer course for GIS technology. History, structure, uses, and current trends of GIS, related fundamental concepts, basic query and cartography operations using an industry-standard GIS software such as ESRI's ArcGIS. CSU/UC

GIS 111. GIS Analysis and Modeling (3)
Lec-2.5, lab-1.5
Prereq.: GIS/GEOG 110
Foundational use of GIS software. GIS database design, data collection, sophisticated analysis. Production of professional maps. Interface customization. Hands-on training using industry-standard GIS software (ESRI's ArcView version 9). Introduces Global Positioning Systems (GPS) as they relate to GIS.

GIS 112. GIS Software Technology (3)
Lec-2.5, lab-1.5
Prereq.: GIS/GEOG 110
Hands-on training in advanced application of GIS technology. Network modeling, suitability analysis, web GIS, mobile GIS, software customization using Visual Basic for Applications (VBA) on ESRI's ArcView version 9 platform.

GIS 111 = GEOG 111

GIS 112 = GEOG 112
**Sustainability**

SUST 91. Applied Research in Sustainability (3)
- Lec-1, lab-10-20
- Prereq.: BIO 31, ENRG 3, GNBS 125
- Repeat: max. 6-12 units

On and off campus college work and research experience with a community partner in the field of sustainability, subject to approval of and under the supervision of an instructor. CSU

**Technology**

**Credit, Degree Applicable Courses:**

TECH 199X. Technical Knowledge Synthesis
- Lec-.25, lab-.75
- Coreq.: Concurrent enrollment in final semester or technical certificate program
- Repeat: max. 2 units

This short course teaches students to integrate and communicate specialized knowledge and skills acquired in certificate training programs. To better equip students for technical occupations, this course introduces the big picture thinking and strategies for presenting sophisticated technical information to a variety of audiences. UC

**Welding**

**Credit, Degree Applicable Courses:**

WELD 140. Manufacturing Processes (3)
- Lec-1.5, lab-4.5
- Repeat: max. 9 units

Elementary machine-tool practice, with special emphasis on the use of the lathe engine, horizontal and vertical milling machines, and drill press. CSU

WELD 144. Welding Processes (2)
- Lec-1.5, lab-1.5
- Repeat: max. 6 units

Classroom instruction and laboratory practice in joining metal by welding. This course is designed to provide the safe and operational uses of the basic welding processes including oxy/fuel welding, plasma cutting and physical testing of welds. This course provides students with cutting and welding skills relevant to industry standards, welding certification requirements and general purposes. CSU

WELD 145. Intermediate Welding Processes (3)
- Lec-1.5, lab-4.5
- Prereq.: WELD 144
- Repeat: max. 6 units

Classroom instruction and laboratory practice in joining metal by intermediate and advanced welding techniques. This course is designed to provide the safe and operational uses of the intermediate welding processes. This course provides students with cutting and welding skills relevant to industry standards, welding certification requirements and general purposes. Emphasis is on preparation for meeting State Welding Certification requirements. CSU

WELD 146. Manufacturing Blueprint Reading (3)
- Lec-3

This course introduces basic skills in reading blueprints for both fabrication and manufacturing. Related math and the uses of measuring tools will be covered in this course. Weld symbols, basic lines and views, basic joints for welded fabrications are introduced. CSU

WELD 147. Welding Inspection Technology (4)
- Lec-4

Introduction into welding codes, terminology, metallurgy, procedures, processes; welder qualification; high-strength bolting; the basics of destructive and non-destructive examination. Includes related math, the use of measuring tools and weld symbols. CSU

**Noncredit Courses:**

TIWE 9676. Combination Welding
- Advise: TRST 4601

Lab/lecture course designed to prepare students for entry into the trade as combination welders. Emphasizes safety, certification preparation, and relevant theory as it applies to industry. Students will weld a variety of metals using a combination of welding processes such as: gas, stick (smaw), MIG, TIG, innershield, along with metal cutting and gouging.

TIWE 9677. Welding Gas/MIG/TIG/Pipe

Preparation for employment in the welding industry. Welding plate metal, sheet metal, sheet metal and pipe in flat, horizontal, vertical, and overhead positions. Five major welding processes and two cutting processes: oxy-acetylene welding, shielded metal arc welding, gas tungsten arc welding, gas metal arc welding, flux cored arc welding, and oxy-acetylene cutting and gouging. Instruction includes safety, terminology, applicable welding theory, blueprint reading, and related math.

TIWE 9680. Welding Blueprint Reading (54 hrs)
- Advise: ESLN 3800; TRST 4601

Interpretation of blueprints, welding symbols and material specifications. Students will be able to read blueprint format and interpret material specifications, identify weld symbols and sizes and develop basic techniques in sketching.

**English**

Office: Batmale 556
Phone Number: (415) 239-3406
Web Site: www.ccsf.edu/english

**English Major (AA)**

English Major. CCSF’s English major offers a wide variety of language, literature, and writing courses—18 GE transferable units—to serve students with diverse goals, including transfer to U.C., C.S.U., or other four year colleges. English majors will be able to complete most or all of their lower division preparation at CCSF before they transfer but should see a counselor to confirm their program of study.

By taking 6 units of Core Reading and Composition Courses, students will learn techniques to produce clear, concise prose by integrating writing, reading, and research. The required 6 units of Core Surveys of literature in English will ensure students have a broad familiarity with different eras of literary history; an additional requirement of 6 units of Specialized Literature Courses provides students with an opportunity for more focused study. If students anticipate careers in law, education, communication, writing, government, advertising, or business, the English major should serve them well.

**Courses Required for the Major in English**

**Group 1: Core Reading and Composition Courses-6 units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL IA University-Parallel Reading &amp; Comp</td>
<td>3</td>
</tr>
<tr>
<td>ENGL IB University-Parallel Reading &amp; Comp</td>
<td>3</td>
</tr>
<tr>
<td>ENGL IC Advanced Composition</td>
<td>3</td>
</tr>
</tbody>
</table>
Announcement of Courses

CCSF English placement testing is required prior to enrollment in English courses. Students may be excused from taking the English Placement Test and may demonstrate their eligibility for ENGL 1A or 1B or 1C by filing an English Placement Test Waiver Form and submitting proof of one of the following to the Matriculation Office, Conlan Hall, Rm 204:

1. University of California Analytical Writing Placement Exam score of 8 or higher - Eligibility: English 1A

2. Completion of a U.C. course satisfying the U.C. Entry Level Writing Requirement (e.g. Subject A Course) - Eligibility: English 1A

3. International Baccalaureate Exam scores:
   IB High Level English A score of 5 or higher - Eligibility: English 1A
   IB Standard Level English Exam with score of 6 - Eligibility: English 1A

4. Any of the following SAT scores:
   SAT Verbal (before 4/95): 510 - Eligibility: English 1A
   SAT Verbal (after 4/95): 590 - Eligibility: English 1A
   SAT II Writing Subject Test: 660 - Eligibility: English 1A
   SAT Reasoning Test, Writing Section: 680 - Eligibility: English 1A

5. ACT Combined English/Writing Test with score of 30 or higher - Eligibility: English 1A

6. Advanced Placement Test Exam in English Literature
   Score of 3 - Eligibility: English 1B/1C; Exemption 1A
   Score of 4 - Eligibility: English 1B/1C; Exemption 1A
   Score of 5 - Eligibility: English 1B/1C; Exemption 1A

Caution: Not all schools and programs accept AP scores for transfer credit. Students are responsible for checking the appropriate policies and requirements.

7. Advanced Placement Test Exam English Language
   Score of 3 - Eligibility: English 1B/1C; Exemption 1A
   Score of 4 - Eligibility: English 1B/1C; Exemption 1A
   Score of 5 - Eligibility: English 1B/1C; Exemption 1A

7. Completion (with “C” or higher) of English 1A - College Level Reading and Composition course or the equivalent - Eligibility: English 1B/1C; Exemption 1A

The sequence of composition courses is ENGL 90, 92, 93, 96, 1A, 1B, 1C. The number of ENGL courses that a student is required to complete depends upon his placement level and educational goal.

A final grade of D or F does not allow the student to progress to the next level in the composition sequence.

Students for whom English is a second language should take the ESL Placement Test. Non-native English speakers with proficient English skills can be placed into the general English sequence through this test.

The chair of the English Department or designee rules on all matters of equivalency of ENGL 1A and 1B courses completed at out-of-state colleges, universities, or private institutions.

For information about the English Eligibility Essay Exam, see the English Eligibility Coordinator in Batmale Hall, Room 514.

Credit, Non-Degree Applicable Courses:

ENGL K. Phonics for Spelling and College Reading Development (3)
Lec-3, conf-1, lab-1 P/NP only
Prereq.: English Placement Test, completion of ESL 120, or placement in ESL 130 or higher
Advise: ENGL L or ENGL 9 may be taken concurrently
Designed to improve reading fluency and spelling through a concentration on patterns of English phonics and use of word attack strategies for decoding college-level vocabulary.

ENGL L. Foundation for College Reading and Studying (3)
Lec-3, conf-1, lab-1 P/NP Available
Prereq.: ESL 130, or placement in ESL 140 or ENGL L
Advise: Completion/concurrent enrollment in ENGL K
Not open to students who have completed ENGL 9, 19, 96 or higher.
This course presents a basic understanding of and practice in reading comprehension, vocabulary, and study skills, and teaches awareness of reading processes. This course will also introduce students to college essay writing in preparation for ENGL 90 or ENGL 91.

ENGL M. Writing with a Computer (1)
Lab-20 (total hrs) P/NP available
Advise: Typing experience
No previous computer experience required.
Learning to write compositions on a computer. Emphasis on composition and on editing and revision. Techniques for producing papers without the time-consuming rewriting of the entire work.

ENGL 9. Reading and Study Skills II (3)
Lec-3, conf-1, lab-1 P/NP available
Prereq.: ENGL L or higher or ESL 140 or higher
Coreq.: Not open to students who are currently enrolled in English L, 19, or 91. Not open to students who have com-
English 90. Basic Composition and Reading I (3)
Lec-3, lab-1
Prereq.: ENGL I or Placement in ENGL 90 or ENGL 91
Advising: Completion/concurrent enrollment in ENGL 9
Credits earned in ENGL 90 do not satisfy the graduation requirements in written composition (Area B).
This course presents basic grounding and practice in writing, reading, and study skills. The emphasis is on learning reading and writing processes and reading short selections which form the basis of the writing assignments. This 3 unit course emphasizes composition, fulfilling the prerequisite for English 92.

ENGL 91. Introduction to Basic Reading and Writing (6)
Lec-6, lab-1.5
Prereq.: Completion of ENGL I or Placement in ENGL 90 or 91
This course presents basic grounding and practice in writing, reading, and study skills. The emphasis is on learning reading and writing processes and reading short selections which form the basis of the writing assignments. This 6 unit course emphasizes both composition and reading skills and fulfills the prerequisite for English 92.

ENGL 92. Basic Reading and Writing II (3)
Lec-3, lab-1
Prereq.: ENGL 91, 90 or Placement in ENGL 92
Advising: Completion/concurrent enrollment in ENGL 9
Credits earned in ENGL 92 do not satisfy the graduation requirements in written composition (Area B).
English 92 expands on the basic reading and writing skills practiced in English 90 or 91. Emphasis is on reading and rereading multiple texts, the connections between reading and writing essays, and the development of essay writing and revision skills.

ENGL 93. Introduction to Academic Writing and Reading
Lec-3, lab-1
Prereq.: ENGL 92 or ESL 160, or Placement in ENGL 93
Credits earned in ENGL 93 do not satisfy the graduation requirements in written composition (Area B).
Advising: Completion/concurrent enrollment in ENGL 9 or 19
Training and practice in academic essay writing and analytical reading. Emphasis is on learning to read and write pre-collegiate argumentative prose.

ENGL 95X. Academic Reading and Writing Intensive (6)
Lec-6, field trips
Prereq.: ENGL 90 or 91 or ESL 160; or Placement in ENGL 92
English 95X is an intensive course in the accelerated pathway merging English 92 and 93 in one semester to prepare students for English 96. Emphasis is on reading multiple academic texts, synthesizing ideas, and developing text based essays and revising. As part of the accelerated pathway, workload in this course is intensive and recommended for highly motivated students.

Credit, Degree Applicable Courses:
ENGL 96. Academic Writing and Reading (3)
Lec-3, lab-1
Prereq.: ENGL 93 or 94, or Placement in ENGL 96
College-level training and practice in critical reading and in writing argumentative essays. Emphasis is on reading and writing analytically and developing research and documentation skills.

ENGL 1A. University-Parallel Reading and Composition (3)
Lec-3, lab-1
Prereq.: ENGL 96 or Placement in English 1A (through CCSF English Placement Testing or the English Placement Test Waiver process)
University-parallel reading, writing, and critical thinking with a major research component. Reading, writing, and research assignments are based predominately on non-fiction texts. CSU/UC

ENGL 1B. Reading, Writing, & Critical Thinking About Literature (3)
Lec-3
Prereq.: ENGL 1A
Advising: ENGL 1B
An advanced composition course that integrates critical thinking skills with the close reading of non-fiction and the writing of expository and argumentative essays, honing a style appropriate for upper division college work. Focus on sharpening critical thinking skills, analyzing and evaluating texts, and writing text-based prose. CSU/UC
Formerly ENGL 40.

ENGL 8. Words (3)
Lec-3
P/NP available
Prereq.: ESL 160 or 82 or Completion/concurrent enrollment in ENGL 92 or Higher
Study of word formations based on Latin and Greek roots and affixes, etymologies of words, development of the meaning of words, context clues, and semantic processes. CSU/UC

ENGL 11. Using Idiomatic English in Writing (1)
Lec-2 (8 wks)
P/NP available
Advising: ENGL 90, 92, 93 or 94 (EA. Concur.)
Open to those students who wish to improve their writing skills.
Using idioms and constructing appropriate word combinations with the aid of the Longman Dictionary of Contemporary English. For polishing writing skills but not a replacement for a grammar class. CSU

ENGL 14. Literary Magazine (3)
Lec-3
P/NP available
Prereq.: ENGL 96
Repeat: Max. 6 units
This class teaches students the basics of producing a literary magazine. Students gain experience in writing, editing and copy editing with a focus on careful reading and written evaluations of literary and artistic works. Students develop aesthetic judgment and create a professional journal with a different literary vision each semester. CSU
ENGL 16. Academic Writing Workshop (3)
Lec-3 P/NP only
Prereq: ENGL 92 or ESL 160; or Placement in ENGL 93 or ESL 170
Repeat: max. 9 units
Open to students eligible for ENGL 1A.
ENGL 16 does not satisfy any part of the graduation requirement in written composition; completion of ENGL 16 does not qualify a student for ENGL 1A.
Individualized instruction and practice in writing college level expository and argumentative essays, including timed writing and answering essay questions. Useful for students who are preparing to take the English Eligibility Essay Exam; who are already qualified for ENGL 1A, but who want additional preparation; or who are preparing for essay exams at universities or written state or national exams. CSU

ENGL 17. Writing Workshop for ENGL 1A (1.5)
Lec-1.5 P/NP only
Prereq: Placement in ENGL 1A or completion of ENGL 96
Repeat: max. 6 units
Practice in developing strategies for ENGL 1A level academic essays, including thesis-based analytical and argumentative essays, research, timed writing, and summarizing. Useful for students who want additional preparation before taking English 1A. CSU

ENGL 19. Advanced Reading Techniques and Vocabulary (3)
Lec-3, conf-1, lab-1 P/np available
Advisement: Completion/concurrent enrollment in ENGL 93 or ENGL 9 or higher
Designed for students who wish to increase their reading skills, improve comprehension and speed, and develop vocabulary. CSU

ENGL 20. Modern British and American Literature (3)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
Consideration of works of significant authors in the United States and the British Commonwealth since 1900. CSU/UC

ENGL 26. Intensive Study and Use of English Grammar (3)
Lec-3 P/np available
Advisement: Completion/concurrent enrollment in ENGL 90 or higher, or ESL 150 or higher
Recommended for students who wish to improve their knowledge and understanding of basic English grammar and those who want to tutor English/ESL.
An intensive and systematic study of the rules of English grammar to improve understanding and use of English. CSU

ENGL 30B. American Literature: 1865-Present (3)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
ENGL 30B is a course surveying American literature from the Civil War to the present. It is designed to introduce students to significant stories, novels, poetry and drama. CSU/UC

ENGL 32A. Early African American Fiction (3)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
Not open to students who are enrolled in or who have completed ENGL 34A.
A survey course designed to explore and analyze African American fiction from 1890 to 1940. CSU/UC

ENGL 32B. Contemporary African American Fiction (3)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
Not open to students who are enrolled in or who have completed ENGL 34B.
An in-depth survey course designed to explore and critically analyze significant literary works of fiction by African American writers from 1940 to the present. CSU/UC

ENGL 34A. Early African American Fiction (3)
Lec-3 P/np available
Not open to students who are enrolled in or who have completed ENGL 32A.
A survey course designed to explore and analyze African American fiction from 1890 to 1940. CSU

ENGL 34B. Contemporary African American Fiction (3)
Lec-3 P/np available
Not open to students who are enrolled in or who have completed ENGL 32B.
An in-depth survey course designed to explore and critically analyze significant literary works of fiction by African American writers from 1940 to the present. CSU

ENGL 35A-H. Creative Writing (3 ea.)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
No part of the ENGL 35 series is prerequisite to any other part.

ENGL 35A-35B. Practice in writing, with special emphasis on the short story. CSU/UC
ENGL 35C-35D. Practice in writing, with special emphasis on poetry. CSU/UC
ENGL 35E-35F. Practice in writing, with special emphasis on the novel and plays. CSU/UC
ENGL 35G-35H. Practice in writing, with special emphasis on autobiography. CSU

ENGL 36. African American Literature—A Survey (3)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
Reading and analysis of formal and informal literary expressions of African Americans from slavery to the present. CSU/UC

ENGL 37. African American Women in Literature (3)
Lec-3, field trip P/np available
An intensive examination of the literary efforts of African American women writers beginning with the Slave Narratives to the present. CSU/UC

ENGL 41. Writing in Connection with Reading the Important Books of the Nineteenth and Twentieth Centuries (3)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
Expository writing based upon the reading and analysis of important works of imaginative literature, as well as an examination of relevant philosophical sources of the late nineteenth and early twentieth centuries. CSU/UC

ENGL 43. Introduction to the Study of Poetry (3)
Lec-3 P/np available
Prereq: ENGL 96 or Placement in ENGL 1A
Lectures on poetry intended to develop the student's ability to read, understand, and evaluate a poem. CSU/UC
ENGL 44A-44B. Survey of World Literature, Past & Present (3-3)
Lec-3	P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
ENGL 44A is not prerequisite to 44B.
ENGL 44A. Classical Literature. CSU/UC
ENGL 44B. Medieval to Present Literature. CSU/UC

ENGL 46A-46B-46C. Survey of Literature in English (3-3-3)
Lec-3	P/NP available
Prereq.: ENGL 1A
Required for a university major in English.
No part of ENGL 46 series is prerequisite to any other part.
ENGL 46A. Chaucer through Milton. CSU/UC
ENGL 46B. Late-Seventeenth to Mid-Nineteenth Century. CSU/UC
ENGL 46C. Mid-Nineteenth through the Twentieth Century. CSU/UC

ENGL 48A-O. Selected Topics (3 ea.)
Lec-3	P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
Not open to students who are enrolled in or who have completed the
same ENGL 49 topic.
No part of the ENGL 48 series is prerequisite to any other part.
Investigation of a major author or authors, a literary movement, theme,
or genre. Exploration of the topic through lectures, films, and class
discussion leading to a critical analysis of the literature in expository
writing and in independent student projects.
ENGL 48A. James Joyce. CSU/UC
ENGL 48B. Detective Fiction. CSU/UC
ENGL 48C. Science Fiction and Fantasy. CSU/UC
ENGL 48D. George Eliot/Marian Evans. CSU/UC
ENGL 48E. Virginia Woolf and Her World. CSU/UC
ENGL 48G. Work and Influence of Mark Twain. CSU/UC
ENGL 48H. The Story of English. CSU/UC
ENGL 48I. Voices and Visions. CSU/UC
ENGL 48J. Transformations of Myth Through Time. CSU
ENGL 48K. The Bible as Literature. CSU
ENGL 48L. The Mystery: East and West. CSU
ENGL 48M. The Literature of Consciousness. CSU
ENGL 48N. The Literature of AIDS. CSU
ENGL 48O. Biography. CSU/UC

ENGL 49A-O. Selected Topics (3 ea.)
Lec-3	P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
Not open to students who are enrolled in or who have completed the
same ENGL 49 topic.
No part of the ENGL 49 series is prerequisite to any other part.
Investigation of a major author or authors, a literary movement, theme,
or genre. Exploration of the topic through lectures, films, and class
discussion leading to a critical analysis of the literature in expository
writing and in independent student projects.
ENGL 49A. James Joyce. CSU
ENGL 49B. Detective Fiction. CSU
ENGL 49C. Science Fiction and Fantasy. CSU
ENGL 49D. George Eliot/Marian Evans. CSU
ENGL 49E. Virginia Woolf and Her World. CSU
ENGL 49G. Work and Influence of Mark Twain. CSU
ENGL 49H. The Story of English. CSU
ENGL 49I. Voices and Visions. CSU
ENGL 49J. Transformations of Myth Through Time. CSU
ENGL 49K. The Bible as Literature. CSU
ENGL 49L. The Mystery: East and West. CSU
ENGL 49M. The Literature of Consciousness. CSU
ENGL 49N. The Literature of AIDS. CSU
ENGL 49O. Biography. CSU

ENGL 50. Myth and Literature (3)
Lec-3	P/NP available
Advise: ENGL 96 or placement in ENGL 1A
Study of classical mythology, its central themes and personalities, and
its relation to Western literature. At option of the instructor, the course
will include study of other mythologies related to this literature. CSU/UC

ENGL 52. Shakespeare (3)
Lec-3
Prereq.: Completion of English 96 or placement in English 1A
Advise: Completion of English 1B or another English literature elective
A survey of Shakespeare's plays and poetry that emphasizes his growth
as a literary artist and the social and artistic forces which shaped his
work in the Elizabethan/jacobean periods. Students learn strategies for
textual analysis and interpretation, engage in in-depth discussion, write
critical essays, and develop analytical and creative projects. CSU/UC

ENGL 53. The Development of the Drama in English: Medieval to
Early Modern (3)
Lec-3
Prereq.: ENGL 96 or eligibility for ENGL 1A
Advise: ENGL 96 or placement in ENGL 1A
The development of the drama in English, from the medieval through
the nineteenth century. Students study plays from major historical
periods, Medieval, English Renaissance, through the nineteenth cen-
tury, with emphasis on critical works on various methods of examining
and evaluating the dramatic form. CSU/UC

ENGL 55. Survey of Gay and Lesbian Literature (3)
Lec-3	P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
A survey of gay and lesbian literature drawing on examples that pres-
ent material relevant to present day experience. CSU/UC

ENGL 56A-C. Selected Topics in Gay and Lesbian Literature (3-3-3)
Lec-3	P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
No part of the ENGL 56 series is prerequisite to any other part.
Selected topics in gay and lesbian literature focusing on specific
chronological, generic, thematic, biographical, or national cultural
structures. CSU (UC upon review)
ENGL 56A. The International Scene.
ENGL 56B. Contemporary Fiction.
ENGL 56C. American Classics.

ENGL 57. Women and Literature (3)
Lec-3, field trips
Prereq.: ENGL 96 or Placement in ENGL 1A
Literature by women: reading, discussion, and analysis of literature
written in English by women over the last four hundred years.
Emphasis on the nineteenth and early twentieth century novel, includ-
ing some poetry and drama, classical as well as new and re-discovered
authors. CSU/UC
ENGL 58A. Contemporary Women Writers and Poets (3)
Lec-3, field trips P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
Contemporary women writers and poets: reading, discussion, and analysis of fiction, poetry, and drama written in English by contemporary women from diverse cultural and ethnic backgrounds. Works in translation may be included. CSU/UC

ENGL 59. Advanced Literary Analysis (3)
Lec-3, field trips P/NP available
Prereq.: ENGL 1B
Advanced instruction in close reading, critical contextualization, and literary analysis for future upper division literature students. CSU/UC

ENGL 60. Identity in Current Ethnic Fiction (3)
Lec-3, field trips P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
What does it mean to be American? Exploring American identity through reading and analysis of important works of imaginative literature by contemporary African American, Asian American, and Latino American authors. CSU/UC

Classics

Announcement of Courses
Credit, Degree Applicable Courses:
CLAS 35. Tragic Dramas of Greece (3)
Lec-3 P/NP available
Prereq.: ENGL 96 or Placement in ENGL 1A
An intensive consideration of the tragic dramas of Greece from a literary standpoint. CSU/UC

Announcement of Curricula
Credit Programs
Advanced Academic English as a Second Language Certificate
Requirements for the Certificate of Accomplishment. The Certificate of Accomplishment in Advanced Academic ESL provides students, prospective employers, and others with documented evidence of persistence and academic accomplishment in ESL. Each course must be completed with a final grade of C or higher. Where available, grades of Pass may be used.
Completion of the core courses will enable students to successfully transition into the CCSF English Program at the level of ENGL 93. ESL 160 meets the prerequisite to ENGL 93.
Core Courses Units
ESL 160 High-Advanced Academic ESL 4
ESL 79 Advanced Speaking and Pronunciation 3
Electives (Choose one):
ESL 66 Advanced Listening and Reading 3
ESL 69 Accent Improvement 2

ESL 85 Advanced Editing and Grammar Review 2
Total Units 9-10

ESL for Health Professionals Certificate*
*This program is pending state approval.
Please refer to the online version of the Catalog.

Announcement of Courses
Credit Courses
Initial recommended placement in the credit ESL program is based on results of 1) the ESL Placement Examination 2) a writing sample, and 3) consultation with the student; for continuing students, successful completion of courses with letter grades requires a grade of C or higher. Credit ESL courses are not open to native speakers of English.

Credit, Non-Degree Applicable Courses:
ESL 20. Health Professions: Communication and Careers - A (6)
Lec-6 P/NP available
Prereq.: ESL 120 or Placement in ESL 130
Advise: Background in Healthcare
Designed for health care professionals in all health fields with low-intermediate English language proficiency. Integrated language skills on themes such as career options and requirements in health care, patient-centered communication techniques, interaction patterns among health co-workers and teams, assertive communication, health care systems and traditions, and cultural diversity in health care contexts in the U.S. See also ESLV 3842.

ESL 23. Health Professionals: Communication and Careers - B (6)
Lec-6 P/NP available
Prereq.: ESL 120
Advise: ESLV 3842.
Designed for health care professionals in all health fields with intermediate English language proficiency. Integrated language skills on themes such as job resumés and interview in health care, interaction patterns on health care teams, discussion of treatment options with patients, exploration of alternative health perspectives, and communication strategies among culturally diverse patients and health workers. These courses do not need to be taken in sequence. See also ESLV 3843.

ESL 26. Health Professions: Communication and Careers - C (6)
Lec-6 P/NP available
Prereq.: ESL 120
Designed for health care professionals in all health fields with upper intermediate English language proficiency. Integrated language skills on themes such as phone and email communication in health care, handling and resolving conflict with co-workers, understanding legal and ethical issues in health care, and researching racial and cultural health disparities. These courses do not need to be taken in sequence. See also ESLV 3844.

ESL 75. Intermediate Editing and Grammar Review (2)
Lec-3 P/NP only
Prereq.: Completion of ESL 130 with a grade of C or higher or Placement in ESL 140 or higher
Advise: Concurrent enrollment in ESL 140 or 150
Repeat: max. 4 units
Review and practice of intermediate grammatical patterns in academic writing, with a focus on the paragraph level, application of editing/
proofreading strategies and skills to improve the quality and accuracy of written college work. Recommended for ESL 140 or 150 students who want additional practice in these skills.

ESL 85. Advanced Editing and Grammar Review (2)  
Lec-3  
Prereq.: Placement in ESL 110 or 120  
Credit, degree Applicable courses: ESL 110, 112

ESL 110. Introductory Academic ESL (6)  
Lec-6  
Prereq.: Placement in ESL 110  
Introduction to pre-college reading materials, skills, and strategies. Practice in writing simple academic paragraphs and reports. High-beginning level vocabulary and grammar study. Equivalent to the former ESL 32 (Reading/Writing).

ESL 112. Introductory Listening/Speaking (2)  
Lec-3 P/NP available  
Prereq.: Placement in ESL 112  
Introduction to pre-college listening and speaking skills and strategies. Oral communication activities and brief oral presentations with vocabulary and grammatical structures appropriate to the high-beginning level. Equivalent to the former ESL 32 (Listening/Speaking).

ESL 120. Low-Intermediate Academic ESL (6)  
Lec-6  
Prereq.: Placement in ESL 120 or 42 or completion of ESL 110  
Pre-college reading skills and strategies. Practice in writing academic paragraphs, short essays and reports. Low-intermediate level vocabulary and grammar study. Equivalent to the former ESL 48 or ESL 42 and 44 (Reading/Writing).

ESL 120R. Low-Intermediate Academic ESL (3)  
Lec-3  
Prereq.: Placement in ESL 120 or 42 or completion of ESL 110  
Pre-college reading skills and strategies. Low-intermediate level vocabulary. Formerly ESL 120B

ESL 120W. Low-Intermediate Academic ESL (3)  
Lec-3  
Prereq.: Placement in ESL 120 or 42 or completion of ESL 110  
Pre-college practice in writing academic paragraphs, short essays and reports. Low-intermediate level vocabulary and grammar study. Formerly ESL 120A

ESL 122. Low-Intermediate Listening/Speaking (2)  
Lec-3 P/NP available  
Prereq.: Placement in ESL 122 or completion of ESL 112  
Pre-college listening and speaking skills and strategies. Oral communication activities and oral presentations with vocabulary and grammatical structures appropriate to the low-intermediate level. Equivalent to the former ESL 46 (Listening/Speaking).

ESL 130. Intermediate Academic ESL (6)  
Lec-6  
Prereq.: Placement in ESL 130 or completion of ESL 120; or 120A or 120B  
Academic reading skills and strategies. Practice in writing brief expository essays and reports. Intermediate level vocabulary and grammar study. Equivalent to the former ESL 58 or and 54 (Reading/Writing).

ESL 132. Intermediate Listening/Speaking (2)  
Lec-3 P/NP available  
Prereq.: Placement in ESL 132 or completion of ESL 122  
Introduction to academic listening and speaking skills and strategies. Oral communication activities and oral presentations with vocabulary and grammatical structures appropriate to the intermediate level. Equivalent to the former ESL 56 (Listening/Speaking).

ESL 142. High-Intermediate. Listening/Speaking (2)  
Lec-3  
Prereq.: Placement in ESL 142 or completion of ESL 132  
Academic listening and speaking skills and strategies. Oral communication activities and oral presentations with vocabulary and grammatical structures appropriate to the high-intermediate level.

Credit, Degree Applicable Courses:

ESL 49. Pronunciation (2)  
Lec/conf-3, lab-1  
Prereq.: Placement in ESL 120 or 42 or completion of ESL 110  
Intensive practice in the oral control of American English emphasizing both pronunciation and listening skills. CSU

ESL 51A. ESL for Child Development (3)  
Lec-3  
Prereq.: Placement in ESL 130 or higher or completion of ESL 120 or 42; may be taken concurrently with either CDEV 65 or 66.  
Repeat: max. 9 units  
English as a second language support for Child Development (CDEV) 65 and 66 for limited English speakers. Reading strategies to successfully manage CDEV course load; writing strategies to successfully complete CDEV class reports and tests. Vocabulary building in child development terminology. Instructor will conduct periodic conferences with CDEV instructors on student progress and achievement. CSU

ESL 66. Advanced Listening and Reading (3)  
Lec-3  
Prereq.: Placement in ESL 140 or 150 or 160 or completion of ESL 130  
Preparation for ESL students in academic skills and strategies that will improve their performance in mainstream courses (e.g., listening skills to improve comprehension of classroom lectures and demonstrations, discipline-specific vocabulary expansion, and ESL reading and writing strategies for note and test-taking). Designed for students who already possess time management and native-language academic skills. CSU
ESL 69. Accent Improvement (2)
Lec-3, lab-1 P/NP only
Prereq.: Placement in ESL 140 or completion of ESL 130
Repeat.: max. 4 units
Students with severe pronunciation problems should enroll in ESL 49
before taking ESL 69
Improvement in standard American English pronunciation, with
emphasis on accent reduction, by improving overall clarity, voice qual-
ity, and physical presentation. CSU

ESL 79. Advanced Speaking and Pronunciation (3)
Lec-3 P/NP available
Prereq.: Placement in ESL 150 or 160 or completion of ESL 140
Practice in effective communication in everyday, academic, and
professional situations through the use of dialogues, role plays,
 improvisations, plays, interviews, debates, and individual and group
presentations. Practice in communication skills and pronunciation,
stress, intonation, phrasing, phrase reductions and tone as needed.
CSU

ESL 140. High-Intermediate Academic ESL (6)
Lec-6
Prereq.: Placement in ESL 140 or completion of ESL 130
Academic reading skills and strategies, with reading passages used to
support written composition work. Practice in writing summaries,
expository essays and essay tests. High-intermediate level vocabulary
and grammar study. CSU/UC
Equivalent to the former ESL 68 or 62 (Reading/Writing).

ESL 150. Advanced Academic ESL (5)
Lec-5.5, Lab-1
Prereq.: Placement in ESL 150 or completion of ESL 140
Advanced academic reading skills and strategies, with reading passages used
to support written composition work. Practice in writing summaries,
expository essays and essay tests. Advanced level vocabulary and
grammar study. Language skills integrated on the basis of academic
tasks and content. CSU/UC
Equivalent to the former ESL 72 (Reading/Writing).

ESL 160. High-Advanced Academic ESL (4)
Lec-4.5, lab-1
Prereq.: ESL 150 or placement in ESL 160
Advanced academic reading skills and strategies. Practice in various
forms of composition and research necessary for college work.
High-advanced level vocabulary and grammar study. Language skills
integrated on the basis of academic tasks and content. CSU/UC

ESL 170. ESL College Reading and Composition (3)
Lec-3
Prereq.: ESL 160 or placement in ESL 170
Advanced academic reading skills and strategies, with an emphasis
on critical reading of expository prose. Practice in various forms of
composition and research necessary for college work, with attention to
the development of grammatical accuracy and a college writing style.
CSU/UC

Announcement of Curricula
Noncredit Programs
Learning Outcomes
Upon completion of the noncredit ESL program, non-native speakers
of English will have the language skills necessary to achieve a variety
of social, academic, and vocational goals. Skills include ability to: 1)
understand oral communication in a variety of contexts; 2) speak on
a variety of topics in social and work-related contexts, 3) use increas-
ingly complex grammatical patterns, 4) use word analysis, vocabulary
development strategies and reading strategies to read and comprehend
authentic texts on familiar topics, and 5) write a variety of correspon-
dence and produce coherent short pieces of writing. Learners acquire
the basic language, social, and problem-solving skills to participate as
responsible citizens and competitive workers.

General Programs
ESL Literacy
ESL Beginning Low 1
ESL Beginning Low 2
ESL Beginning Low 1-2 Intensive
ESL Beginning 1-4 Multilevel
ESL Beginning Low Conversation
ESL Beginning Low Focus Skills
ESL Beginning High 3
ESL Beginning High 4
ESL Beginning High 3-4 Intensive
ESL Beginning High Focus Skills
ESL Beginning Workplace Skills
ESL Computer Assisted Intermediate
ESL for Health Professionals
ESL Intermediate Low 5
ESL Intermediate Low 6
ESL Intermediate Low 5-6 Intensive
ESL Intermediate Low Focus Skills
ESL Intermediate 5-8 Multi-level
ESL Intermediate High 7
ESL Intermediate High 8
ESL Intermediate High 7-8 Intensive
ESL Intermediate High 8
ESL Intermediate High Focus Skills
ESL Intermediate High Conversation
ESL Intermediate High Writing
ESL Advanced Low 9

Vocational ESL Programs
ESL/ABE for Automotive Technology
Beginning Low VESL Communication
Beginning Low VESL for Housekeeping Workers
Beginning VESL for Construction Workers
Beginning VESL for Janitorial Workers
Beginning VESL for the Hospitality Industry
Intermediate VESL for Biotech Workers
Intermediate VESL for Child Development Workers
Intermediate VESL for Clerical Workers
Intermediate VESL for Construction Workers
Intermediate VESL for Health Workers
Intermediate VESL for Hospitality Workers
Intermediate VESL for Job Searching
Intermediate VESL for Printing Workers
Intermediate VESL for Transit Operators
Vocational ESL Office Training

General Programs

ESL Literacy Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Literacy upon successful completion of any of the following courses. These courses in English as a Second Language will provide language skills for students with little or no English language skills.

Core Courses | Hours
--- | ---
ESLF 3000 Native Language Literacy | 180
ESLN 3010 ESL Literacy A | 180
ESLN 3015 ESL Literacy A-A | 90
ESLN 3016 ESL Literacy A-B | 90
ESLN 4015 ESL Literacy A | 45
ESLN 3020 ESL Literacy B | 180

ESL Beginning Low 1 Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning Low 1 upon successful completion of any of the following courses. These courses in English as a Second Language will provide language skills for students with little or no English language skills.

Core Course | Hours
--- | ---
ESLN 3100 Beginning Low 1 | 180
ESLN 3105 Beginning 1-A | 90
ESLN 3106 Beginning 1-B | 90

ESL Beginning Low 2 Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning Low 2 upon successful completion of any of the following courses. These courses in English as a Second Language will provide language skills for students with little or no English language skills.

Core Courses | Hours
--- | ---
ESLN 3200 Beginning Low 2 | 180
ESLN 3205 Beginning 2-A | 90
ESLN 3206 Beginning 2-B | 90

ESL Beginning Low 1-2 Intensive Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning Low 1-2 Intensive upon successful completion of any course. These courses in English as a Second Language are Beginning accelerated courses.

Core Courses | Hours
--- | ---
ESLN 3150 Beginning Low 1-2 Intensive | 180
ESLN 4150 Beginning Low 1-2 Intensive (90A) | 90
ESLN 4151 Beginning Low 1-2 Intensive (90B) | 90

ESL Beginning 1-4 Multi-Level Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning 1-4 Multi-Level upon successful completion of any of the following courses. These courses in English as a Second Language develop and expand basic English skills.

Core Courses | Hours
--- | ---
ESLN 3140 Beginning 1-4 Multi-level | 180
ESLN 3145 Beginning 1-4 Multi-level-A | 90
ESLN 3146 Beginning 1-4 Multi-level-B | 90

ESL Beginning Low Conversation Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning Low Conversation upon successful completion of any two courses. These courses in English as a Second Language expand Beginning Low English skills.

Core Courses | Hours
--- | ---
ESLF 3127 Speaking-Beginning Low | 90
ESLF 3144 Pronunciation-Beginning | 90
ESLF 4127 Beginning Low Conversation | 45
ESLN 3205 Beginning Low 2 (90A) | 90
ESLN 3206 Beginning Low 2 (90B) | 90

ESL Beginning Low Focus Skills Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning Low Focus Skills upon successful completion of any two of the following courses. These courses in English as a Second Language develop and expand basic English skills.

Core Courses | Hours
--- | ---
ESLF 3129 Writing-Beginning Low | 90
ESLF 3126 Listening-Beginning Low | 90
ESLF 3128 Reading-Beginning Low | 90
ESLF 3127 Speaking-Beginning Low | 90

ESL Beginning High 3 Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning High 3 upon successful completion of any of the following courses. These courses in English as a Second Language develop and expand Beginning Low 2 English skills.

Core Courses | Hours
--- | ---
ESLN 3300 Beginning High 3 | 180
ESLN 3305 Beginning High 3-A | 90
ESLN 3306 Beginning High 3-B | 90

ESL Beginning High 4 Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning High 4 upon successful completion of any of the following courses. These courses in English as a Second Language develop and expand Beginning High 3 English skills.

Core Course | Hours
--- | ---
ESLN 3340 Beginning High 3-4 Multi-level | 180
ESLN 3400 Beginning High 4 | 180
ESLN 3405 Beginning High 4-A | 90
ESLN 3406 Beginning High 4-B | 90

ESL Beginning High 3-4 Intensive Noncredit Certificate
Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning High 3-4 Intensive upon successful completion of the core course and any optional course. These courses in English as a Second Language develop and expand Beginning High English skills.

Core Course | Hours
--- | ---
ESLN 3340 Beginning High 3-4 Multi-level | 180
ESLN 3400 Beginning High 4 | 180
ESLN 3405 Beginning High 4-A | 90
ESLN 3406 Beginning High 4-B | 90
Core Course	Hours
ESLN 3350 Beginning High 3-4 Intensive..................180

Optional Course
ESLN 3400 Beginning High 4 ..............................180
ESLN 3405 Beginning High 4-A ............................ 90
ESLN 3406 Beginning High 4-B ............................ 90

**ESL Beginning High Focus Skills Noncredit Certificate**

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Beginning High Focus Skills upon successful completion of any two of the following courses. These courses in English as a Second Language develop and expand Beginning Low English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3346 ESL Listening-Beginning High ............. 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 3347 ESL Speaking-Beginning High .............. 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 4347 Conversation-Beginning High .............. 45</td>
<td></td>
</tr>
<tr>
<td>ESLF 3011 English Through Song Lyrics .............. 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 3348 ESL Reading-Beginning High ............... 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 3349 ESL Writing-Beginning High ............... 90</td>
<td></td>
</tr>
</tbody>
</table>

**ESL Beginning Workplace Skills Noncredit Certificate**

Requirements for the Certificate of Completion in ESL Beginning Workplace Skills. Students may obtain a Certificate of Completion in ESL Beginning Workplace Skills upon successful completion of any two of the following courses. Students further develop and expand their knowledge of beginning English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLB 3822 Keyboarding for ESL Students .............. 180</td>
<td></td>
</tr>
<tr>
<td>ESLB 4822 Keyboarding for ESL Students .............. 90</td>
<td></td>
</tr>
<tr>
<td>ESLF3003 ESL Math ....................................... 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 3020 ESL Skills Computer Lab .................... 90</td>
<td></td>
</tr>
<tr>
<td>ESLV 4823 Online Job Search Skills for ESL .......... 45</td>
<td></td>
</tr>
</tbody>
</table>

**ESL Computer-Assisted Intermediate Noncredit Certificate**

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Computer-Assisted Intermediate upon successful completion of any course. These courses in English as a Second Language develop and expand Intermediate English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3006 Computer Assisted ESL-Intermediate ...... 180</td>
<td></td>
</tr>
<tr>
<td>ESLF 3821 Introduction to Computers for ESL-Intermediate .......... 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 4821 Introduction to Computers for ESL-Intermediate .......... 45</td>
<td></td>
</tr>
<tr>
<td>ESLF 4006 Computer Assisted ESL ....................... 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 5006 Computer Assisted ESL ....................... 45</td>
<td></td>
</tr>
<tr>
<td>ESLV 3829 Computer VESL-High Intermediate .......... 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 3005 Writing with a Computer-Intermediate ....... 90</td>
<td></td>
</tr>
</tbody>
</table>

**ESL for Health Professionals Noncredit Certificate**

Requirements for the Certificate of Completion. The Certificate of Completion in ESL for Health Professionals provides immigrant and non-native English speakers, current and protective health care/ community health employers, and others documented evidence of completion of three courses in an accelerated program in English communication for the healthcare workplace.

**Learning Outcomes**

Upon completion students will have an upper intermediate English language proficiency level and will have acquired communicative and cultural competencies that will help them succeed in the field of healthcare.

- Upon completion of this certificate, students will be able to:
- Explore career goals and tools to assist them in advancing their career in heath
- Use appropriate language skills with patients and co-workers
- Examine current issues in the field of medicine and health care
- Apply strategies for recognizing and including cultural beliefs and values, as they relate to health and health care.

**Courses Required for the Certificate of Completion in ESL for Health Professionals**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3842 Healthcare Communication I ................. 105</td>
<td></td>
</tr>
<tr>
<td>ESLV 3843 Healthcare Communication II .................. 105</td>
<td></td>
</tr>
<tr>
<td>ESLV 3844 Healthcare Communication III ..................105</td>
<td></td>
</tr>
<tr>
<td>Total Hours ............................................. 105</td>
<td></td>
</tr>
</tbody>
</table>

**ESL Intermediate Low 5 Noncredit Certificate**

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Intermediate Low 5 upon completion of any of the following courses. These courses in English as a Second Language develop and expand Beginning High 4 English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3500 Intermediate Low 5 .......................... 180</td>
<td></td>
</tr>
<tr>
<td>ESLN 3505 Intermediate Low 5-A ........................ 90</td>
<td></td>
</tr>
<tr>
<td>ESLN 3506 Intermediate Low 5-B ........................ 90</td>
<td></td>
</tr>
</tbody>
</table>

**ESL Intermediate Low 6 Noncredit Certificate**

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Intermediate Low 6 upon successful completion of any two of the following courses. These courses in English as a Second Language develop and expand Intermediate Low 5 English Skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3600 Intermediate Low 6 .......................... 180</td>
<td></td>
</tr>
<tr>
<td>ESLN 3560 Intermediate Low 5-6 Multi-level ............. 180</td>
<td></td>
</tr>
<tr>
<td>ESLN 3605 Intermediate 6-A ............................. 90</td>
<td></td>
</tr>
<tr>
<td>ESLN 3606 Intermediate Low 6-B ........................ 90</td>
<td></td>
</tr>
<tr>
<td>ESLF 4567 Intermediate Low Conversation ............... 45</td>
<td></td>
</tr>
<tr>
<td>ESLF 4569 Speaking Intermediate Low .................... 45</td>
<td></td>
</tr>
</tbody>
</table>

**ESL Intermediate Low 5-6 Intensive Noncredit Certificate**

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in ESL Intermediate Low 5-6 Intensive upon successful completion of the core course and any optional course. These courses in English as a Second Language develop and expand Intermediate Low English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3550 Intermediate Low 5-6 Intensive .............. 180</td>
<td></td>
</tr>
</tbody>
</table>

**Optional Course**

| ESLN 3600 Intermediate Low 6 .......................... 180 |
ESLN 3605 Intermediate 6-A ........................................... 90  
ESLN 3606 Intermediate Low 6-B .................................. 90

### ESL Intermediate Low Focus Skills Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate Low Focus Skills upon successful completion of any two of the following courses. These courses in English as a Second Language develop and expand Beginning High English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3566 ESL Listening-Intermediate Low</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4567 Intermediate Low Conversation</td>
<td>45</td>
</tr>
<tr>
<td>ESLF 3567 Speaking-Intermediate Low</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3568 Reading-Intermediate Low</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3569 Writing-Intermediate Low</td>
<td>90</td>
</tr>
</tbody>
</table>

### ESL Intermediate 5-8 Multi-level Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate 5-8 Multi-level upon successful completion of the core course and any optional course. These courses in English as a Second Language develop and expand Intermediate English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3580 Intermediate 5-8 Multi-level</td>
<td>180</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3585 Accelerated Grammar</td>
<td>180</td>
</tr>
<tr>
<td>ESLF 3581 Vocabulary Power</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 3819 Social Communication</td>
<td>90</td>
</tr>
</tbody>
</table>

### ESL Intermediate High 7 Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate High 7 upon successful completion of the core course and any optional course. These courses in English as a Second Language develop and expand ESL Intermediate High 6 English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3700 Intermediate High 7</td>
<td>180</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3001 ESL Women’s Issues</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3819 Social Communication</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4787 Intermediate High Conversation</td>
<td>45</td>
</tr>
<tr>
<td>ESLF 3584 Pronunciation-Intermediate</td>
<td>90</td>
</tr>
</tbody>
</table>

### ESL Intermediate High 8 Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate High 8 upon successful completion of any two of the following courses. These courses in English as a Second Language develop and expand ESL Intermediate High 7 English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3800 Intermediate High 8</td>
<td>180</td>
</tr>
<tr>
<td>ESLF 3786 Listening-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3788 Reading-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3789 Writing-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3584 Pronunciation-Intermediate</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3780 Intermediate High 7-8 Multilevel</td>
<td>180</td>
</tr>
</tbody>
</table>

### ESL Intermediate High 7-8 Intensive Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate High 7-8 Intensive upon successful completion of any of the following courses. These courses in English as a Second Language are Intermediate accelerated courses.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3750 Intermediate High 7-8 Intensive</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3785 Intermediate High 7-8 Intensive-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3786 Intermediate High 7-8 Intensive-B</td>
<td>90</td>
</tr>
</tbody>
</table>

### ESL Intermediate High Conversation Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate High Conversation upon successful completion of any two of the following courses. These courses in English as a Second Language expand Intermediate High English skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3787 Speaking-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3819 Social Communication</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4787 Intermediate High Conversation</td>
<td>45</td>
</tr>
<tr>
<td>ESLF 3584 Pronunciation-Intermediate</td>
<td>90</td>
</tr>
</tbody>
</table>

### ESL Intermediate High Focus Skills Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate High Focus Skills upon successful completion of any two courses. These courses in English as a Second Language develop and expand Intermediate Low English skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3001 ESL Women’s Issues</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3819 Social Communication</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4787 Intermediate High Conversation</td>
<td>45</td>
</tr>
<tr>
<td>ESLF 3584 Pronunciation-Intermediate</td>
<td>90</td>
</tr>
</tbody>
</table>

### ESL Intermediate High Reading Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Intermediate High Reading upon successful completion of any of the following courses. These courses in English as a Second Language develop and expand Intermediate High English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3788 Reading-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3800 Intermediate High 8</td>
<td>180</td>
</tr>
<tr>
<td>ESLF 3581 Vocabulary Power</td>
<td>180</td>
</tr>
<tr>
<td>ESLF 3002 Current Events</td>
<td>90</td>
</tr>
</tbody>
</table>

### ESL Advanced Low 9 Noncredit Certificate

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL Advanced Low 9 upon successful completion of the core course and any optional course. These courses in English as a Second Language develop and expand ESL Intermediate High 8 English skills.
## Vocational ESL Programs

### ESL/ABE for Automotive Technology

**Noncredit Certificate**

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in ESL/ABE for Automotive Technology upon successful completion of the core course and any optional course. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3900. Advanced Low 9</td>
<td>180</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3786 Listening-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3788 Reading-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3789 Writing-Intermediate High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3584 Pronunciation-Intermediate</td>
<td>90</td>
</tr>
</tbody>
</table>

### Beginning Low VESL Communication

**Noncredit Certificate**

**Requirements for the Certificate of Completion.** Students may obtain a Certificate of Completion in Beginning Low VESL Communication upon successful completion of any of the following courses. These courses in English as a Second Language will provide language skills for students with little or no English language skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3813 ESL/ABE for Automotive Technology</td>
<td>90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3801 Comm. Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4822 Workplace Communication Strategies</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
</tbody>
</table>

### Beginning Low VESL for Housekeeping Workers

**Noncredit Certificate**

**Requirements for the Certificate of Completion in Beginning Low VESL for Housekeeping Workers.** Students may obtain a Certificate of Completion in Beginning Low VESL for Housekeeping Workers upon successful completion of the ESLV 3807 and any other course. These courses in English as a Second Language will provide language skills for students with little or no English language skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3807 Housekeeping ESL</td>
<td>88</td>
</tr>
<tr>
<td>ESLV 3841 Beginning VESL Communication</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 4841 Beginning-Low VESL Comm. A</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4842 Beginning-Low VESL Comm. B</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3836 VESL for Customer Service</td>
<td>90</td>
</tr>
</tbody>
</table>

### Beginning VESL for Construction Workers

**Noncredit Certificate**

**Requirements for the Certificate of Completion in Beginning VESL for Construction Workers.** Students may obtain a Certificate of Completion in Beginning VESL for Construction Workers upon successful completion of ESLV 3840 and any other course. These courses in English as a Second Language develop and expand beginning English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3840 VESL for the Biotech Industry</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
</tbody>
</table>

### Beginning VESL for Janitorial Workers

**Noncredit Certificate**

**Requirements for the Certificate of Completion in Beginning VESL for Janitorial Workers.** Students may obtain a Certificate of Completion in Beginning VESL for Janitorial Workers upon successful completion of any three courses. These courses in English as a Second Language develop and expand beginning English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3816 Communication Skills for Janitorial Workers</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 4816 Communication Skills for Janitorial Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3800 Communication Skills for the Workplace</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4822 Workplace Communication Strategies</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
</tbody>
</table>

### Beginning VESL for the Hospitality Industry

**Noncredit Certificate**

**Requirements for the Certificate of Completion in Beginning VESL for the Hospitality Industry.** Students may obtain a Certificate of Completion in Beginning VESL for the Hospitality Industry upon successful completion of ESLV 3814 or ESLV 3827 and any other course. These courses in English as a Second Language develop and expand beginning English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3814 Communication Skills for Chinese Cooks</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3827 Communication Skills for Hotel/Service Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3800 Communication Skills for the Workplace</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4822 Workplace Communication Strategies</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
</tbody>
</table>

### Intermediate VESL for Biotech Workers

**Noncredit Certificate**

**Requirements for the Certificate of Completion in Intermediate VESL for Biotech Workers.** Students may obtain a Certificate of Completion in Intermediate VESL for Biotech Workers upon successful completion of ESLV 3840 and any other course. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3840 VESL for the Biotech Industry</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
</tbody>
</table>
Intermediate VESL for Child Development Workers Noncredit Certificate

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in Intermediate VESL for Child Development Workers upon successful completion of the following courses. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3833 VESL for Child Development A</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3834 VESL for Child Development B</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4833 VESL for Child Development A</td>
<td>45</td>
</tr>
</tbody>
</table>

Intermediate VESL for Clerical Workers Noncredit Certificate

Requirements for the Certificate of Completion in Intermediate VESL for Clerical Workers. Students may obtain a Certificate of Completion in Intermediate VESL Clerical Workers upon successful completion of ESLV 3804 and any other course. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3804 VESL for Clerical Procedures</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 3828 Business Writing on Micros/ESL</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3819 Social Communication</td>
<td>90</td>
</tr>
</tbody>
</table>

Intermediate VESL for Construction Workers Noncredit Certificate

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in Intermediate VESL for Construction Workers upon successful completion of ESLV 3831 and any other course. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3831 Comm. Skills for Construction Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3801 Comm. Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4822 Workplace Comm. Strategies</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
<tr>
<td>ESLF 4567 Intermediate Low Conversation</td>
<td>45</td>
</tr>
</tbody>
</table>

Intermediate VESL for Health Workers Noncredit Certificate

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in Intermediate VESL for Health Workers upon successful completion of any of the following courses. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3830 Communication Skills for Health Workers</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 4830 Comm. Skills for Health Workers-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4831 Comm. Skills for Health Workers-B</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 5830 VESL for Health Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4839 Computer VESL-Health Workers</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Intermediate VESL for Hospitality Workers Noncredit Certificate

Requirements for the Certificate of Completion in Intermediate VESL for Hospitality Workers. Students may obtain a Certificate of Completion in Intermediate VESL for Hospitality Workers upon successful completion of any two courses. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3822 Communications for Customer Service Employees</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3808 Communication Skills for Culinary Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3835 VESL for Banquet Servers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3824 Communication Skills for Food Service/Hospitality</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4822 Workplace Communication Strategies</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Intermediate VESL for Job Searching Noncredit Certificate

Requirements for the Certificate of Completion in Intermediate VESL Communication Skills for Job Searching. Students may obtain a Certificate of Completion in Intermediate VESL Communication Skills for Job Searching upon successful completion of ESLV 3823 and any other course. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3823 Communication Skills for Job Searching</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4822 Workplace Communication Strategies</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 4823 Online Job Search Skills for ESL</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Intermediate VESL for Printing Workers Noncredit Certificate

Requirements for the Certificate of Completion in Intermediate VESL for Printing Worker. Students may obtain a Certificate of Completion in Intermediate VESL for Printing Workers upon successful completion of ESLV 3839 and any other course. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3839 VESL for Printing</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4822 Workplace Communication Strategies</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Intermediate VESL for Transit Operators Noncredit Certificate

Requirements for the Certificate of Completion. Students may obtain a Certificate of Completion in Intermediate VESL for Transit Operators upon successful completion of any of the following courses. These courses in English as a Second Language develop and expand intermediate English skills.

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3837 Communication Skills for New Transit Operators</td>
<td>90</td>
</tr>
</tbody>
</table>
ESLV 3838 Communication Skills
  for Transit Operators .............................. 90
ESLV 4837 Communication Skills
  for New Transit Operators ............................ 45
ESLV 4838 Comm. Skills for Transit Operators ...... 45

Vocational ESL Office Training
Noncredit Certificate

Program Goal. The program prepares students for a wide variety of entry-level clerical positions in the automated office environment or for further advanced studies. Class instruction includes basic business skills (keyboarding, 10-key calculation, office correspondence and filing), business communication skills (business English, telephone training, and job search), and computer applications (word processing, database management, and spreadsheets).

Admission Requirements. Completion of Intermediate Low 5 (ESLN 3500 or 3505), typing (25 wpm or with permission of instructor).

Length of Program: 810 hours

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3804 VESL for Clerical Workers</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace OR ESLV 3819 Social Communication AND ESLV 3829 Computer VESL-High Int</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>BOSS 5503 Keyboarding-All Levels OR BOSS 5502 Clerical Keyboarding OR ESLV 3822 Keyboarding for ESL Students</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>BOSS 5507 Data Entry/10-Key OR BOSS 2500 Bus. Math with Spreadsheets</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>ESLB 3821 Intro to Computers for ESL-Intermediate OR COMP 9857 MS Office Business Appl. with Simulated Projects</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Electives (Selected from below)</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

Elective Courses:

- COMP 9857 MS Office Business Appl. with Simulated Projects (if ESLB 3821 before) ............... 90
- COMP 9901 Microsoft Access for Business I ................. 45
- ESLV 3823 Comm. Skills for Job Searching ............... 90
- WOPR 9486 Microsoft Word for Business I ................. 45

Optional. Students may take additional ESL courses while enrolled in this program.

Requirements for Completion. In addition to the course requirements, students must also fulfill the following requirements: 80% minimum attendance; Typing (45 wpm; 10% error rate) and 10-key (160 nwpd; 5% error rate).

For entry requirements, application procedures, and financial assistance contact consulting offices at the following campuses where this program is offered: Chinatown/North Beach 561-1850; Downtown 267-6500

Noncredit Courses

These courses are designed for students whose first or native language is not English. Students gain proficiency in English to find employment, to continue their education, and to function successfully in the culture and society of the United States. Survival skills are stressed in the first three levels of the program. Vocational paths provide a bridge to vocational training. Up to 90 ESL credits may be used as elective credit for the high school diploma.

ESL, Academic

ESLA 3012. Test of English as a Foreign Language (TOEFL) Preparation (25 hrs)
  ADVISE: COMPLETION OF ESLN 3600 (INTERMEDIATE LOW 6)
  Development of test-taking techniques essential for success in taking TOEFL exams. Sample tests of Listening, Grammar and Reading sections administered.

ESLA 3565. Strategies for Success in Credit ESL (90 hrs)
  ADVISE: COMPLETION OF ESLN 3400 (BEGINNING LOW 4)
  Intermediate non-credit ESL students will develop the writing and composition skills needed for composition assignments in credit ESL classes. Academic level listening strategies and note-taking skills will prepare students for academic oral participation and presentations. Students will learn in-class test-taking strategies.

ESL, Bridge

Grades of P/NP are offered for ESLB courses.

ESLB 3821. Introduction to Computers for ESL - Intermediate (90 hrs)
  ADVISE: COMPLETION OF ESLN 3400 (BEGINNING HIGH 4)
  Introduction to computer skills for intermediate level ESL students. Overview of computer components and terminology. Introduction to applications such as word processing, Internet, email, spreadsheets, presentation and other software. English reading, writing, speaking and listening skills are developed through a variety of computer projects and interactive classroom work.

ESLB 3822. Keyboarding for ESL Students (180 hrs)
  ADVISE: COMPLETION OF ESLN 3100 (BEGINNING LOW 1)
  Reinforcement of language skills through introduction to keyboarding with materials and lessons especially adapted for ESL students. Development of keyboarding techniques for centering, tabulating, speed and accuracy. Application of typing skills to writing at appropriate ESL levels.

ESLB 4821. Introduction to Computers for ESL - Intermediate (45 hrs)
  ADVISE: COMPLETION OF ESLN 3400 (BEGINNING HIGH 4)
  A short introductory course in computer skills for intermediate level ESL students. Computer terminology related to word processing, spreadsheets, and database applications are introduced. Intermediate reading and writing skills are used to create and edit a few documents, worksheets and data reports, using simple software.

ESLB 4822. Keyboarding for ESL Students (90 hrs)
  ADVISE: COMPLETION OF ESLN 3100 (BEGINNING LOW 1)
  An overview of keyboarding skills with materials and lessons especially adapted for beginning level ESL students. Keyboarding techniques for centering, tabulating, speed and accuracy are introduced. Limited practice is available.

ESL, Citizenship

ESLC 3030. ESL/Citizenship Literacy (90 hrs)
  ADVISE: COMPLETION OF ESLN 3030 (LITERACY A)
  ESL Literacy students prepare for the U.S. Citizenship test given by the Department of Immigration and Naturalization Services. Speaking, listening, reading and writing skills at the basic literacy level applied to answering test questions on personal information, U.S. history, government and the Constitution.
ESLC 3031. ESL/Citizenship (90 hrs)

Advised: Completion of ESLN 3100 (Beginning Low 1)
Preparation for the U.S. Citizenship test given by the Department of Immigration and Naturalization Services. Speaking, listening, reading and writing skills applied to answering test questions on U.S. history, government and the Constitution.

ESLC 3032. ESL Citizenship Multi-Level 1-4 (90 hrs)

Advised: Literate in native language
ESL learners prepare for the U.S. Citizenship test given by the Department of Immigration and Naturalization Services. Beginning English speaking, listening, reading and writing skills applied to answering test questions on personal information, U.S. history, government and the Constitution.

ESLC 3033. ESL Citizenship Multi-Level 5-8 (90 hrs)

Advised: Completion of ESLN 3400 (Beginning High 4)
Preparation for the U.S. Citizenship test given by the Department of Immigration and Naturalization Services. Speaking, listening, reading and writing skills applied to answering test questions on personal information, U.S. history, government and the Constitution.

ESLC 4032. ESL Citizenship Multi-Level 1-4 (45 hrs)

Advised: Literate in native language
ESL learners receive minimal preparation for the U.S. Citizenship test given by the Department of Immigration and Naturalization Services. Beginning speaking and listening are emphasized for accurate responses to test questions. Learners also practice written responses.

ESLC 4033. ESL Citizenship Multi-Level 5-8 (45 hrs)

Advised: Completion of ESLN 3400 (Beginning High 4)
ESL learners receive basic preparation for the U.S. Citizenship test given by the Department of Immigration and Naturalization Services. Intermediate speaking and listening are emphasized for accurate responses to test questions. Learners engage in extended discussions of the above topics as they relate to current events. Written responses are also practiced.

ESL, Focus

ESLF 3000. Native Language Literacy (180 hrs)
Development of literacy skills in native language. Emphasis on reading, writing, math and basic education. 1-6 semesters depending on mastery of course objectives.

ESLF 3001. ESL Women’s Issues (90 hrs)
Advised: Completion of ESLN 3500 (Intermediate Low 5)
Development of listening, speaking, reading, and writing skills through discussions on topics that affect women’s lives such as family life, changing roles of men and women, gender and the workplace.

ESLF 3002. ESL Current Events (90 hrs)
Advised: Completion of ESLN 3600 (Intermediate Low 6)
Readings from a variety of materials on current events and issues followed by discussions to increase awareness of local, state, national and international issues. Development of reading vocabulary, listening and speaking skills. Emphasis on evaluation and interpretation of materials.

ESLF 3003. ESL Math (90 hrs)
Advised: Completion of ESLN 3100 (Beginning Low 1)
Development of math vocabulary used in directions and written problems involving whole numbers, fractions, decimals and percents in an ESL context.

ESLF 3005. Writing with a Computer - Intermediate (90 hrs)
Advised: Completion of ESLN 3400 (Beginning High 4)
Writing skills and the computer skills necessary to compose on a computer are taught. All parts of the writing process - brainstorming, writing outlines, revising and editing. Computer terminology, word processing, spreadsheet documents, drawing and navigating the Internet are included.

ESLF 3006. Computer Assisted ESL - Intermediate (180 hrs)
Advised: Completion of ESLN 3400 (Beginning High 4)
Intermediate level ESL listening, speaking, reading and writing skills expanded and developed through more extensive group computer projects in an interactive classroom environment. Instruction includes computer terminology and development and application of computer skills to a variety of projects.

ESLF 3007. Computer Assisted ESL - Beginning Low (90 hrs)
Advised: Completion of ESLN 3300 (Literacy A)
Beginning level ESL listening, speaking, reading and writing skills are expanded and developed through less extensive group computer projects in an interactive classroom environment. Aural development, oral readiness and reading readiness are stressed. Computer terminology and basic computer skills are included.

ESLF 3008. Computer Assisted ESL - Beginning High (90 hrs)
Advised: Completion of ESLN 3100 (Beginning Low 1)
Beginning level ESL listening, speaking, reading and writing skills are expanded and developed through less extensive group computer projects. Aural development, oral readiness and reading readiness are stressed. Computer terminology and basic computer skills are included.

ESLF 3011. English Through Song Lyrics (90 hrs)
Advised: Completion of ESLN 3300 (Beginning Low 3)
Using English-language music to learn listening, reading, writing, and conversational skills and grammar, and to develop awareness of American culture.

ESLF 3020. ESL Skills Computer Lab (6-90 hrs)
Advised: Completion of ESLN 3100 (Beginning Low 1)
Designed to meet the needs of ESL students at various levels. Development of speaking, listening, reading, writing and basic computer skills through the use of computer-assisted language learning software, writing on the computer, internet and other software programs.

ESLF 3126. Listening - Beginning Low (90 hrs)
Advised: Literate in native language
Beginning low listening comprehension is developed. This course develops basic listening skills. Students learn frequently spoken words, phrases, simple learned expressions and questions.

ESLF 3127. Speaking - Beginning Low (90 hrs)
Advised: Literate in native language
Speaking skills for Beginning low ESL students. Communicate survival needs using very simple learned phrases and sentences. Engage in limited conversations.

ESLF 3128. Reading - Beginning Low (90 hrs)
Advised: Literate in native language
Beginning low reading skills are developed. This course includes recognition of numbers and letters. Students construct meaning from simple print materials on familiar topics.
ESLF 3129. Writing - Beginning Low (90 hrs)  
**Advise: Literate in native language**  
Beginning low writing skills developed. Basic mechanics such as punctuation and capitalization are emphasized. Most content is dictated, substituted, completed or copied from other sources. Writing intended primarily to facilitate and reflect learning of spoken language.

ESLF 3144. Pronunciation - Beginning (90 hrs)  
**Advise: Completion of ESLN 3020 (Literacy B)**  
Development of basic pronunciation skills through understanding of English sounds. Rhythm, stress, and intonation are introduced.

ESLF 3346. Listening - Beginning High (90 hrs)  
**Advise: Completion of ESLN 3200 (Beginning Low 2)**  
Beginning High listening comprehension skills are emphasized. Learners comprehend spoken English containing some unfamiliar words when used in familiar contexts and can participate in simple conversations.

ESLF 3347. Speaking - Beginning High (90 hrs)  
**Advise: Completion of ESLN 3200 (Beginning Low 2)**  
High Beginning speaking skills are emphasized in this course. Learners communicate about basic needs and common activities and participate in basic conversations in routine social situations.

ESLF 3348. Reading - Beginning High (90 hrs)  
**Advise: Completion of ESLN 3200 (Beginning Low 2)**  
Basic reading skills practiced and developed, including interpreting vocabulary in context, reading simplified forms, and using various reading strategies to comprehend written materials. Learners read some authentic materials dealing with everyday topics.

ESLF 3349. Writing - Beginning High (90 hrs)  
**Advise: Completion of ESLN 3200 (Beginning Low 2)**  
Beginning High writing skills are emphasized. Use of correct mechanics and formatting are expanded. Learners generate sentences into short, loosely organized paragraphs related to survival skills and personal topics. Short messages or notes are produced.

ESLF 3346. Listening - Intermediate Low (90 hrs)  
**Advise: Completion of ESLN 3400 (Beginning Low 2)**  
Intermediate Low listening focus course. Comprehend spoken English containing some unfamiliar words in mostly familiar contexts. Understand and respond to another speaker in increasingly extended conversations on familiar topics.

ESLF 3347. Speaking - Intermediate Low (90 hrs)  
**Advise: Completion of ESLN 3400 (Beginning Low 2)**  
Intermediate Low speaking focus. Comprehend spoken English containing some unfamiliar words well enough to respond to another speaker in increasingly extended conversations on familiar topics and in some unfamiliar contexts. Communicate about topics beyond survival needs including giving a brief oral presentation.

ESLF 3348. Reading - Intermediate Low (90 hrs)  
**Advise: Completion of ESLN 3400 (Beginning Low 2)**  
Intermediate Low reading focus course. Comprehend written English containing some unfamiliar words. Use an increasing variety of word analysis skills to determine the meaning of new words. Learners read simplified materials on familiar subjects and use visual, graphic and contextual clues to help comprehend authentic materials.

ESLF 3349. Writing - Intermediate Low (90 hrs)  
**Advise: Completion of ESLN 3400 (Beginning High 4)**  
Longer written work produced in less controlled tasks with expanded vocabulary and sentence style. Paragraph development and methods of organization introduced. Work revised and edited from peer-group response and/or teacher feedback.

ESLF 3354. Pronunciation - Intermediate (90 hrs)  
**Advise: Completion of ESLN 3400 (Beginning High 4)**  
Pronunciation skills are practiced and expanded for better oral communication. Review of formation and production of English sounds. Rhythm, stress, and intonation in intermediate level conversations developed.

ESLF 3354. Pronunciation - Intermediate (90 hrs)  
**Advise: Completion of ESLN 3400 (Beginning High 4)**  
Pronunciation skills are practiced and expanded for better oral communication. Review of formation and production of English sounds. Rhythm, stress, and intonation in intermediate level conversations developed.

ESLF 3356. Listening - Intermediate High (90 hrs)  
**Advise: Completion of ESLN 3700 (Intermediate High 7)**  
Intermediate High listening focus course. Learners will understand essential points of spoken English on topics in special fields of interest. Learners will understand and respond to another speaker in conversations on unfamiliar topics.

ESLF 3356. Listening - Intermediate High (90 hrs)  
**Advise: Completion of ESLN 3700 (Intermediate High 7)**  
Intermediate High listening focus course. Learners will understand essential points of spoken English on topics in special fields of interest. Learners will understand and respond to another speaker in conversations on unfamiliar topics.

ESLF 3357. Speaking - Intermediate High (90 hrs)  
**Advise: Completion of ESLN 3700 (Intermediate High 7)**  
Intermediate High speaking focus. Learners communicate about a variety of topics. Learners engage in extended conversations and interviews except for highly specialized subjects. Learners can adjust language to the level of formality needed to converse and can clarify utterances in order to be understood by the general public.

ESLF 3358. Reading - Intermediate High (90 hrs)  
**Advise: Completion of ESLN 3700 (Intermediate High 7)**  
Intermediate High reading focus course. Comprehend authentic written English on common topics. Use a variety of word analysis skills to determine the meaning of new words in context on familiar topics and in specialized materials. Learners draw conclusions from authentic materials on familiar topics.

ESLF 3359. Writing - Intermediate High (90 hrs)  
**Advise: Completion of ESLN 3700 (Intermediate High 7)**  
Intermediate High writing focus course. Learners write brief compositions about previously discussed topics. Learners write routine correspondence with increasing complexity of organization and detail.

ESLF 3360. Telling Stories for ESL Students (90 hrs)  
**Advise: Completion of ESLN 3600 (Low Intermediate 6)**  
Focus on the creative use of the English language through performance exercises, the telling of various tales from different cultures, and the oral creation of original stories to improve narrative and communication skills at the high intermediate level.
ESLF 3791. ESL, Through Story-Based Video and TV (90 hrs)
Advise: Completion of ESLN 3600 (Intermediate Low 6)
Development of intermediate listening and speaking skills through viewing of story-based videos and TV programs such as episodes of soap operas, sit-coms and dramas.

ESLF 4006. Computer Assisted ESL (90 hrs)
Advise: Completion of ESLN 3400 (Beginning High 4)
Listening, speaking, reading and writing skills expanded and developed through group computer projects and interactive classroom environment. Emphasis on accuracy and fluency.

ESLF 4007. Computer Assisted ESL - Beginning Low (45 hrs)
Advise: Completion of ESLN 3010 (Literacy A)
Basic language skills expanded and developed through group computer projects and interactive class environment. Aural development, oral readiness and reading readiness stressed.

ESLF 4008. Computer Assisted ESL - Beginning High (45 hrs)
Advise: Completion of ESLN 3200 (Beginning Low 2); ability and desire to acquire language at an accelerated rate
Aural and oral skills expanded and practiced through computer projects and interactive classroom work. Reinforcement of oral/aural skills and development of reading and writing skills.

ESLF 4127. Beginning Low Conversation (45 hrs)
Advise: Literate in native language
Beginning low speaking and listening conversational skills are emphasized. Learners begin to communicate about common activities and engage in short, simple conversations.

ESLF 4347. Conversation-Beginning High (45 hrs)
Advise: Completion of ESLN 3200 (Beginning Low 2)
Beginning high speaking and listening conversational skills are emphasized. Learners communicate about common activities and participate in simple conversations in routine social situations.

ESLF 4567. Intermediate Low Conversation (45 hrs)
Advise: Completion of ESLN 3400 (High Beginning 4)
Intermediate low speaking and listening skills are emphasized. Students participate in conversations on some unfamiliar topics beyond survival needs. Students begin to discuss authentic written materials on familiar subjects.

ESLF 4597. Writing - Intermediate Low (45 hrs)
Advise: Completion of ESLN 3400 (High Beginning 4)
Longer written work produced in less controlled tasks, with expanded vocabulary and sentence style. Paragraph development and methods of organization introduced. Work revised and edited from pre-group response and/or teacher feedback.

ESLF 4787. Intermediate High Conversation (45 hrs)
Advise: Completion of ESLN 3400 (Intermediate Low 6)
Intermediate high speaking and listening skills are emphasized. Students participate in extended conversations on a variety of topics. Students are able to read and discuss authentic material on common topics.

ESLF 5006. Computer-Assisted ESL (45 hrs)
Advise: Completion of ESLN 3400 (Beginning High 4)
Intermediate level ESL listening, speaking, reading, and writing skills are expanded through selected group computer projects. Students are exposed to computer vocabulary and basic skills which can be used as a basis for further study.

ESLF 3010. ESL Literacy-A (180 hrs)
Advise: Semi-literate in native language
Orientation to the classroom and development of ESL literacy skills. Emphasis on oral English for survival and development of pre-reading and pre-writing skills.

ESLF 3015. ESL Literacy A (90 hrs)
Advise: Semi-literate in native language
Orientation to classroom procedures and development of ESL literacy skills. Emphasis on oral English for classroom and basic survival.

ESLF 3016. ESL Literacy A (90 hrs)
Advise: Semi-literate in native language
Development of ESL literacy skills. Survival listening and pronunciation skills are included. Emphasis is on pre-reading and pre-writing survival skills.

ESLF 3020. ESL Literacy B (180 hrs)
Advise: Semi-literate in native language
Development of ESL literacy skills. Emphasis on English sound/symbol correspondence, reading and writing simple English sentences.

ESLF 3100. Beginning Low 1 (180 hrs)
Advise: Literate in native language
Beginning Low 1 students develop language skills and a general understanding of the content in simple written and spoken English. Students practice language for daily survival and participate in common social exchanges. Students learn to copy and print simple sentences.

ESLF 3105. Beginning Low 1 - A (90 hrs)
Advise: Literate in native language
Beginning Low 1 English language skills. Students are introduced to language for daily survival and common social conversations. Students learn to print learned material.

ESLF 3106. Beginning Low 1 - B (90 hrs)
Advise: Literate in native language
Beginning Low 1 English skills. Students are introduced to simple written English. Students continue to practice language for daily survival and expand their ability to participate in common social exchanges. Students copy and print learned phrases and simple sentences.

ESLF 3140. Beginning 1-4 Multi-level (180 hrs)
Advise: Literate in native language
Designed to meet the needs of students with various levels of beginning English proficiency. Comprehend spoken English in familiar contexts. Communicate about common activities and participate in basic conversations in routine social situations. Generate sentences related to survival skills and personal topics.

ESLF 3145. Beginning 1-4 Multi-level - A (90 hrs)
Advise: Literate in native language
Designed to meet the needs of students with various levels of beginning English proficiency. Comprehension of spoken English in familiar contexts and communication related to basic needs and common is emphasized. Participation in basic conversations in routine social situations is included. Basic reading skills and sentence writing related to survival skills and personal topics is introduced.
ESLN 3146. Beginning 1-4 Multi-level - B (90 hrs)
Advise: Literate in native language
Designed to meet the needs of students with various levels of beginning English proficiency. Basic reading skills and sentence writing related to survival skills and personal topics are emphasized. Participation in basic conversations in routine social situations is included.

ESLN 3150. Beginning Low 1-2 Intensive (180 hrs)
Advise: Literate in native language
Beginning Low accelerated course. Students learn basic language skills including frequently used spoken words, simple expressions and questions in familiar contexts. Survival needs listening comprehension, oral communication, reading readiness are included. Pre-writing skills are introduced.

ESLN 3200. Beginning Low 2 (180 hrs)
Advise: Completion of ESLN 3100 (Beginning Low 1)
Beginning Low 2 students further develop and expand their knowledge of beginning low English skills. Students learn language for daily needs and limited participation in common social conversations. Aural development, oral readiness, and reading readiness are emphasized. Simple writing practice is introduced.

ESLN 3205. Beginning Low 2 - A (90 hrs)
Advise: Completion of ESLN 3100 (Beginning Low 1)
Beginning Low 2 students further develop and expand their knowledge of beginning low English skills. Students learn language for daily needs and limited participation in common social conversations. Listening, speaking and pronunciation skills are emphasized.

ESLN 3206. Beginning Low 2 - B (90 hrs)
Advise: Completion of ESLN 3100 (Beginning Low 1)
Beginning Low 2 students further develop and expand their knowledge of beginning low English skills. Students learn language for daily needs and limited participation in common social conversations. Reading readiness is emphasized and simple writing practice is introduced.

ESLN 3300. Beginning High 3 (180 hrs)
Advise: Completion of ESLN 3200 or equivalent language ability.
Beginning High 3 basic level English skills. Comprehend spoken English in familiar contexts. Communicate about basic needs and routine activities and participate in basic conversations about routine social situations. Generate sentences related to survival skills and personal topics.

ESLN 3305. Beginning High 3 - A (90 hrs)
Advise: Completion of ESLN 3200 (Beginning Low 2)
Beginning High 3 English skills. Students learn to comprehend spoken English in routine and familiar contexts. Communicating about basic needs and participating in basic conversations is emphasized. Students generate sentences related to personal topics.

ESLN 3306. Beginning High 3 - B (90 hrs)
Advise: Completion of ESLN 3200 (Beginning Low 2)
Beginning High 3 basic English skills. Students review their comprehension of spoken English in familiar contexts. Students interpret simplified reading material. Generate short, loosely organized paragraphs related to familiar topics.

ESLN 3340. Beginning High 3-4 Multilevel (180 hrs)
Advise: Completion of ESLN 3200 (Beginning Low 2)
Students will develop Beginning High basic level English skills. Students will generate sentences about life and work topics and organize them into paragraph form. Students will understand English speakers and can participate in basic conversations in familiar work life contexts. Students can communicate about basic needs and routine activities.

ESLN 3350. Beginning High 3-4 Intensive (180 hrs)
Advise: Completion of ESLN 3200 (Beginning High 2)
Beginning High 4 accelerated course. Comprehend spoken English in familiar contexts with the ability to participate in simple conversations. Communicate about basic needs and common activities in routine social situations. Generate short, loosely organized paragraphs related to survival skills and personal topics.

ESLN 3400. Beginning High 4 (180 hrs)
Advise: Completion of ESLN 3300 (Beginning High 3)
Beginning High 4 language skills. Comprehend spoken English in familiar contexts. Communicate about basic needs and common activities and participate in basic conversations in routine social situations. Generate sentences into short, loosely organized paragraphs related to survival skills and personal topics.

ESLN 3405. Beginning High 4 - A (90 hrs)
Advise: Completion of ESLN 3300 (Beginning High 3)
Beginning High 4 language skills. Comprehend spoken English in familiar contexts with some unfamiliar words. Communicate about basic needs and activities and participate in basic conversations in routine social situations. Generate simple sentences about personal and familiar topics.

ESLN 3406. Beginning High 4 - B (90 hrs)
Advise: Completion of ESLN 3300 (Beginning High 3)
Beginning High 4 language skills. Comprehend spoken English in familiar contexts. Communicate about common activities and participate in basic conversations. Generate sentences about personal experiences and familiar topics into short, loosely organized paragraphs.

ESLN 3500. Intermediate Low 5 (180 hrs)
Advise: Completion of ESLN 3400 (Beginning High 4)
Intermediate Low 5 English skills. Learners understand increasingly extended conversations on familiar topics. Readings include authentic or adapted narratives and descriptive passages. Level 5 grammar structures and forms are used to develop short clearly organized paragraphs and messages.

ESLN 3505. Intermediate Low 5 - A (90 hrs)
Advise: Completion of ESLN 3400 (Beginning High 4)
Intermediate Low 5 English skills. Learners comprehend increasingly extended conversations in mostly familiar contexts. Students participate in conversations in familiar and unfamiliar contexts. Readings include simplified narratives. Level 5 grammar structures and forms are introduced.

ESLN 3506. Intermediate Low 5 - B (90 hrs)
Advise: Completion of ESLN 3400 (Beginning High 4)
Intermediate Low 5 English skills. Learners comprehend extended conversations in familiar contexts. Readings include authentic or adapted
narratives and descriptive passages. Level 5 grammar structures and forms are used to develop short, clearly organized paragraphs and messages.

ESLN 3550. Intermediate Low 5-6 Intensive (180 hrs)
Advisement: Completion of ESLN 3400 (Beginning High 4)
Intermediate Low accelerated course. Comprehend spoken and written English containing some unfamiliar words. Participate in conversation on some unfamiliar topics beyond survival needs. Comprehend simplified materials on familiar subjects and begin to read authentic materials. Write one or more paragraphs related to survival skills, personal topics and other topics.

ESLN 3560. Intermediate Low 5-6 Multilevel (180 hrs)
Advisement: Completion of ESLN 3400 (Beginning High 4)
Students improve speaking, listening and writing of English on topics beyond survival needs. Students develop vocabulary and reading skills. Students write paragraphs and give short speeches on familiar topics using clear organization.

ESLN 3580. Intermediate 5-8 Multi-level (180 hrs)
Advisement: Completion of ESLN 3400 (Beginning High 4)
Intermediate non-credit ESL students will develop the skills necessary to participate in extended conversations with some unfamiliar vocabulary. Students will be able to summarize familiar authentic material. Students will write short letters and paragraphs on learned topics.

ESLN 3600. Intermediate Low 6 (180 hrs)
Advisement: Completion of ESLN 3500 (Intermediate Low 5)
Intermediate Low 6 language skills. Comprehend spoken and written English containing some unfamiliar words. Participate in increasingly extended conversation on some unfamiliar topics beyond survival needs. Understand short reading passages differentiating between fact and opinion with some accuracy. Write a clearly organized paragraph with relevant ideas and clearly organized ideas.

ESLN 3605. Intermediate Low 6 - A (90 hrs)
Advisement: Completion of ESLN 3500 (Intermediate Low 5)
Intermediate Low 6 language skills. Communication skills are stressed. Comprehend spoken English containing some unfamiliar words. Participate in increasingly extended conversations on some unfamiliar topics beyond survival needs. Begin to understand short reading passages. Organize relevant ideas and supporting details into a short paragraph.

ESLN 3606. Intermediate Low 6 - B (90 hrs)
Advisement: Completion of ESLN 3500 (Intermediate Low 5)
Intermediate Low 6 language skills. Comprehension of spoken and written English containing some unfamiliar words. Participate in conversations on some unfamiliar topics beyond survival needs. Understand short reading passages differentiating between fact and opinion with some accuracy. Write a clearly organized paragraph with relevant ideas and clearly organized ideas.

ESLN 3700. Intermediate High 7 (180 hrs)
Advisement: Completion of ESLN 3600 (Intermediate Low 6)
High Intermediate 7 language skills. Understanding of increasingly extended conversations, discussions or lectures. Speak about familiar topics with little hesitation. Read authentic material identifying the main idea including making simple inferences. Write well-developed paragraphs.

ESLN 3750. Intermediate High 7-8 Intensive (180 hrs)
Advisement: Completion of ESLN 3600 (Intermediate Low 6)
Intermediate High accelerated course. Understand essential points of discussion or speeches on topics of special interest and communicate on a variety of topics. Engage in extended conversations and interviews on familiar topics. Read authentic materials on everyday subjects and write brief compositions about previously discussed topics. Write routine correspondence with increasing complexity or organization and detail.

ESLN 3780. Intermediate High 7-8 Multilevel (180 hrs)
Advisement: Completion of ESLN 3600 (Intermediate Low 6)
Intermediate High accelerated course for listening and speaking skills. Understand essential points of discussion or speeches on topics of special interest and communicate on a variety of topics. Engage in extended conversation and interviews on familiar topics. Read authentic materials on everyday subjects. Write routine correspondence in familiar situations.

ESLN 3785. Intermediate High 7-8 Intensive - A (90 hrs)
Advisement: Completion of ESLN 3600 (Intermediate Low 6)
Intermediate High accelerated course for reading and writing skills. Understand essential points of discussion and be able to participate in conversations. Read authentic materials on everyday subjects and write brief compositions about previously discussed topics. Write routine correspondence with increasing complexity or organization and detail.

ESLN 3786. Intermediate High 7-8 Intensive - B (90 hrs)
Advisement: Completion of ESLN 3600 (Intermediate Low 6)
Intermediate High accelerated course for reading and writing skills. Understand essential points of discussion and be able to participate in conversations. Read authentic materials on everyday subjects and write brief compositions about previously discussed topics. Write routine correspondence with increasing complexity or organization and detail.

ESLN 3800. Intermediate High 8 (180 hrs)
Advisement: Completion of Intermediate High 7
High intermediate 8 language skills. Understand essential points of discussions or speeches in special fields of interest. Communicate about a variety of topics using appropriate syntax. Read authentic material on a variety of topics identifying the main idea including drawing conclusions. Write brief compositions about previously discussed topics.

ESLN 3900. Advanced Low 9 (180 hrs)
Advisement: Completion of ESLN 3800 (Intermediate High 8)
Advanced Low 9 language skills. Designed to meet daily needs in familiar and unfamiliar situations, with emphasis on fluency and communication in the four language skills.

ESLN 4015. ESL Literacy A (45 hrs)
Advisement: Pre-literate, non-literate or semi-literate in native language with little or no English language skills. Orientation to classroom procedures and development of ESL literacy skills. Emphasis on oral English and development of pre-reading and pre-writing skills for survival.

ESLN 4150. Beginning Low 1-2 Intensive - A (90 hrs)
Advisement: Literate in native language
Beginning Low accelerated course. Survival needs, listening comprehension and oral communication are emphasized. Reading readiness and pre-writing skills are introduced.
ESLN 4151. Beginning Low 1-2 Intensive - B (90 hrs)

*Advise: Literate in native language*

Beginning Low accelerated course. Survival needs listening comprehension and oral communication. Reading readiness and pre-writing skills are emphasized.

### ESL, Vocational

**ESLV 3800. Communication Skills for the Workplace (90 hrs)**  
*Advise: Completion of ESLN 3300 (Beginning High 3)*

Basic verbal communication skills and cultural knowledge needed in preparation for finding employment in the United States.

**ESLV 3801. Communication Skills for the Workplace (180 hrs)**  
*Advise: Completion of ESLN 3300 (Beginning High 3)*

Verbal communication skills and cultural knowledge needed for obtaining employment and staying successfully employed in the U.S.

**ESLV 3804. VESL for Clerical Workers (180 hrs)**  
*Advise: Completion of ESLN 3500 (Intermediate Low 5)*

Communicative language required for general clerical work. Terminology related to office procedures, forms, filing, and telephone training is emphasized. Language for job search and job retention is included.

**ESLV 3807. Housekeeping ESL (88 hrs)**  
*Advise: Literate in native language*

For those interested in entry-level positions in housekeeping. Includes language on housekeeping methods and terminology, such as use of cleaning products and electrical appliances, health and safety procedures, record keeping, employer/employee relations, and job search preparation.

**ESLV 3808. Communication Skills for Culinary Workers (90 hrs)**  
*Advise: Completion of ESLN 3400 (Beginning High 4)*

Learners develop verbal communication skills for work in the culinary industry. English terminology for cooking utensils, supplies, common tasks, and safety in culinary occupations.

**ESLV 3813. ESL/ABE for Automotive Technology (15 hrs)**  
*Advise: Completion of ESLN 3500 (Low Intermediate 5), ABE 2074 or equivalent language ability*

Language and communication skills, including technical vocabulary, informal speech and idioms used by automotive mechanics. Reading of shop manuals and automotive specification data and the comprehension of oral and written descriptions.

**ESLV 3814. Communication Skills for Chinese cooks (90 hrs)**  
*Advise: Completion of ESLN 3300 (Beginning High 3)*

Verbal communication skills for the job. English terminology for cooking utensils, supplies, common tasks, and safety in restaurants specializing in Chinese cuisine.

**ESLV 3816. Communication Skills for Janitorial Workers (180 hrs)**  
*Advise: Completion of ESLN 3300 (Beginning High 3)*

Students develop good verbal communication skills for janitorial work. English terminology of equipment, supplies, common tasks, and safety are included.

**ESLV 3819. Social Communication (90 hrs)**  
*Advise: Completion of ESLN 3400 (Beginning High 4)*

Conversational strategies for appropriate interaction in American work and social settings; cross-cultural discussions about social customs and practice in telephone procedures.

**ESLV 3822. Communication Skills for Customer Service Employees (90 hrs)**  
*Advise: Completion of ESLN 3600 (Intermediate Low 6)*

Students learn verbal communication skills in customer service positions. Students learn to handle customers, engage in small talk with co-workers, discuss work performance with supervisors and in general, be able to participate in conversations in a variety of work situations.

**ESLV 3823. Communication Skills for Job Searching (90 hrs)**  
*Advise: Completion of ESLN 3600 (Intermediate Low 6)*

Students learn, practice, and utilize the communication skills and related vocabulary involved in getting a job. Students learn interview techniques.

**ESLV 3824. Communication Skills for Food Service/Hospitality (180 hrs)**  
*Advise: Completion of ESLN 3400 (Beginning High 4)*

Communication skills for a job in the food service industry. English terminology of cooking utensils, supplies, common tasks, and safety in food service occupations.

**ESLV 3825. VESL and Career Exploration I (45 hrs)**  
*Advise: Completion of ESLN 3300 (Beginning High 3)*

Verbal communication skills and vocabulary related to keeping a job, discussing personal goals, and understanding cultural/social skills as they relate to the workplace. Part 1 in a 2-part series. See VESL and Career Exploration II (ESLV 3826).

**ESLV 3826. VESL and Career Exploration II (45 hrs)**  
*Advise: Completion of ESLN 3300 (Beginning High 3)*

Communication skills and vocabulary related to the areas of getting a job, personal skills evaluation, career evaluation and resume writing.

**ESLV 3827. Communication Skills for Hotel/Service Workers (90 hrs)**  
*Advise: Completion of ESLN 3300 (Beginning High 3)*

Verbal communication skills for the hotel service industry. Includes English terminology of equipment, supplies, common tasks, and safety in the hotel industry.

**ESLV 3828. Business Writing on Micros/ESL (90 hrs)**  
*Advise: Completion of ESLN 3700 (Intermediate High 7), BOSS 5500 Keyboarding/25 words per minute*

Develop business communication skills using basic word processing software. Includes composition and style of documents, vocabulary and spelling, review of grammar and punctuation, Recognition, pronunciation and use of computer terminology relevant to word processing.

**ESLV 3829. Computer VESL - High Intermediate (90 hrs)**  
*Advise: Completion of ESLN 3500 (Intermediate Low 5)*

Communicative language skills, computer vocabulary and terminology used in the automated office environment. Additional focus will be on knowledge and procedures for responding to computer messages and problem-solving.

**ESLV 3830. Communication Skills for Health Workers (180 hrs)**  
*Advise: Completion of ESLN 3600 (Intermediate Low 6)*

Designed for health care workers and others interested in the health field. Focus on language skills necessary to function in a medical environment. Study of basic medical terms and pronunciation. Social and cultural skills necessary for successful verbal interaction in health care surroundings.
ESLV 3831. Communication Skills for Construction Workers (180 hrs)  
**Advisement:** Completion of ESLN 3400 (Beginning High 4)  
Intermediate verbal communication skills for jobs in the construction trades. Terminology of tools, supplies, materials, tasks, and safety. Instructors and/or coordinators from vocational and apprenticeship programs (such as Carpentry, Electrical, Sheet Metal) may serve as guest speakers.

ESLV 3832. Communication Skills for Construction Workers (90 hrs)  
**Advisement:** Completion of ESLN 3200 (Beginning Low 2)  
Beginning level verbal communication skills for the job and terms for tools, supplies, materials, tasks and safety in the construction field. Instructors and/or coordinators from vocational and apprenticeship programs (such as Carpentry, Electrical, Sheet Metal, etc.) may serve as guest speakers.

ESLV 3833. VESL for Child Development - A (90 hrs)  
**Advisement:** Completion of ESLN 3400 (Intermediate Low 4)  
Practice in language needed by students enrolled in child development classes. Strategies for reading of simple material on childcare philosophy, trends, and practices. Familiarization with popular children's books, nursery rhymes, finger plays and games for pre-school-age children. May be taken before or concurrently with VESL for CDEV "B."

ESLV 3834. VESL for Child Development - B (90 hrs)  
**Advisement:** Completion of ESLN 3400 (Intermediate Low 4)  
Practice in language needed by workers in the childcare field. Strategies for reading simple material on childcare philosophy, trends, and practices. Familiarization with popular children's books, nursery rhymes, finger plays and games for pre-school-age children. Job skills focus. May be taken before or concurrently with VESL for CDEV "A."

ESLV 3835. VESL for Banquet Servers (24 hrs)  
**Advisement:** Completion of ESLN 3400 (Intermediate Low 5)  
Communicative language required for entry-level positions in banquet service. Includes language on essential banquet service terminology, banquet service etiquette, personal grooming and hygiene, and effective communication in banquet service environment.

ESLV 3836. VESL for Customer Service (90 hrs)  
**Advisement:** Completion of ESLN 3010 (Literacy A)  
English language skills in preparation for work in customer service jobs. Content and communication skills focus on serving customers in retail, restaurant, financial, hotel and travel industries.

ESLV 3837. Communication Skills for New Transit Operators (90 hrs)  
**Advisement:** Completion of ESLN 3400 (Beginning High 4)  
English language skills to prepare for entry into transit training. Content and communication skills for new coach, metro, and streetcar drivers in the transit system, with an emphasis on listening and speaking.

ESLV 3838. Communication Skills for Transit Operators (90 hrs)  
**Advisement:** Completion of ESLN 3400 (Beginning High 4)  
English language skills for working transit operators to improve basic communication skills for coach, metro, and streetcar operators, with an emphasis on customer service for a diverse public.

ESLV 3839. VESL for Printing (90 hrs)  
**Advisement:** Completion of ESLN 3400 (Beginning-High 4) or permission of instructor.  
Language and communication skills, vocabulary, speech and idioms, necessary for a career in printing.

ESLV 3840. VESL for the Biotech Industry (64 hrs)  
**Advisement:** Completion of ESLN 3600 (Intermediate Low 6)  
Introductory level lecture course covering basic scientific language and applying it to some fundamental concepts of biology. An orientation to the field of biotechnology and professional opportunities.

ESLV 3841. Beginning VESL Communication (180 hrs)  
**Advisement:** Completion of ESLN 3020 (Literacy B)  
Development of verbal and nonverbal communication strategies for successful interaction in multicultural workplaces for beginning level English learners.

ESLV 3842. Healthcare Communication I (105 hrs)  
**Advisement:** Health care background, completion of ESLN 3600 (Intermediate Low 6); Basic computer literacy (ESLB 3821)  
Designed for all health care professionals with upper intermediate English language proficiency. Develop integrated language skills for career options and requirements in health care, patient-centered communication techniques, interaction patterns among health co-workers, assertive communication, health care systems and traditions, and cultural diversity in U.S. health care contexts.  
See also ESL 20.

ESLV 3843. Healthcare Communication II (105 hrs)  
**Advisement:** Health care background, completion of ESLN 3600 (Intermediate Low 6); Basic computer literacy (ESLB 3821)  
For all health care professionals with upper intermediate English language proficiency. Develop integrated language skills for job resumes, interviews, interaction patterns on health care teams, discussion of treatment options with patients, exploration of alternative health perspectives, and communication strategies among culturally diverse patients and health workers.  
See also ESL 23.

ESLV 3844. Healthcare Communication III (105 hrs)  
**Advisement:** Health care background, completion of ESLN 3600 (Intermediate Low 6); Basic computer literacy (ESLB 3821)  
Designed for all health care professionals with upper intermediate English language proficiency. Develop integrated language skills for phone and email communication in health care settings, strategies for communicating with special-needs patients, resolving conflict with co-workers, understanding legal and ethical issues in health care, and researching racial and cultural health disparities.  
See also ESL 26.

ESLV 4816. Communication Skills for Janitorial Workers (90 hrs)  
**Advisement:** Completion of ESLN 3300 (Beginning High 3)  
Students acquire minimal verbal communication skills for janitorial work, including English terminology for equipment, supplies, common tasks, and safety.

ESLV 4822. Workplace Communication Strategies (45 hrs)  
**Advisement:** Completion of ESLN 3300 (Beginning High 3)  
Students learn verbal and nonverbal communication strategies for successful interaction in multicultural workplaces.
ESLV 4823. Online Job Search Skills for ESL (45 hrs)
Advise: Completion of ESLN 3400 (Beginning Low 4)
Students will develop the English vocabulary, reading, and writing skills necessary to complete the online job search process successfully. Students will search for, read and analyze online job applications, résumés and other job-search e-mails.

ESLV 4830. Communication Skills for Health Workers - A (90 hrs)
Advise: Completion of ESLN 3600 (Intermediate Low 6)
Designed for health care workers and others interested in the health field. General knowledge of health care settings, terminology and staff. Identification of major body systems and their basic functions. Appropriate language for successful verbal interaction in a medical setting between medical professionals.

ESLV 4831. Communication Skills for Health Workers - B (90 hrs)
Advise: Completion of ESLN 3600 (Intermediate Low 6)
Designed for health care workers and others interested in the health field. Focus on language skills necessary to function in a medical environment. Study of social and cultural skills necessary for successful interaction with patients and co-workers.

ESLV 4833. VESL for Child Development - A (45 hrs)
Advise: Completion of ESLN 3400 (Intermediate Low 4)
Practice in minimal language skills needed by students enrolled in child development classes. Strategies for reading of simple material on childcare philosophy, trends, and practices. May be taken before or concurrently with VESL for CDEV “B.”

ESLV 4837. Communication Skills for New Transit Operators (45 hrs)
Advise: Completion of ESLN 3400 (Beginning High 4)
Introduction to English language skills to prepare transit trainees for work. Basic communication skills for coach, metro, and streetcar drivers in the transit system.

ESLV 4838. Communication Skills for Transit Operators (45 hrs)
Advise: Completion of ESLN 3400 (Beginning-High 4)
In overview of English language skills for working transit operators is presented to help improve basic communication skills for coach, metro, and streetcar operators, with an emphasis on customer service for a diverse public.

ESLV 4839. Computer VESL - Health Workers (22.5 hrs)
Advise: Completion of ESLN 3400 (Intermediate Low 4)
Communicative language skills, computer vocabulary and terminology used in an automated healthcare environment. Additional focus will be on knowledge and procedures for responding to computer messages and problem-solving.

ESLV 4841. Beginning-Low VESL Communication - A (90 hrs)
Advise: Completion of ESLN 3020 (Literacy B)
Development of verbal and nonverbal communication strategies for successful interaction in multicultural workplaces for beginning level English learners.

ESLV 4842. Beginning-Low VESL Communication - B (90 hrs)
Advise: Completion of ESLN 3020 (Literacy B)
Development of verbal and nonverbal communication strategies for successful interaction in multicultural workplaces for beginning level English learners.

ESLV 5822. Basic Workplace Communication (22.5 hrs)
Advise: Completion of ESLN 3300 (Beginning High 3)
Development of verbal and nonverbal communication strategies for successful interaction in multicultural workplaces.

ESLV 5830. VESL for Health Workers (90 hrs)
Advise: Completion of ESLN 3500 (Intermediate Low 5)
Designed for health care workers and others interested in the health field. Focus on language skills necessary to function in a medical environment. Emphasis on social and cultural skills for successful interaction with patients and co-workers.

Environmental Horticulture and Floristry
Office: EH/F
Phone Number: (415) 239-3140
Web Site: www.ccsf.edu/envhort

Announcement of Curricula
General Information
The Environmental Horticulture and Floristry Department offers students a choice of preparation for employment in producing, selling, and caring for plants and flowers used to beautify homes, stores, gardens, parks, highways, and industrial property. Training is offered in four fields: commercial cut-flower and greenhouse production, landscape gardening and landscape contracting, nursery and garden-center operation, and retail floristry. The Program in Environmental Horticulture and Floristry comprises the curricula in these fields. Students may complete majors concurrently in any two of these fields, or, with the help of the teaching staff, plan a course of study to meet their particular needs.

Learning Outcomes
Students who satisfactorily complete the curriculum in their chosen course of study in the Environmental Horticulture and Floristy Department are qualified for employment in the environmental horticultural and floristry industries or they may transfer to a four year institution of learning to achieve a more advanced degree.

Admission. Enrollment is open to all interested students.

Work Experience Training. Students in the Program may obtain field training in the horticulture or floral industries by enrolling in the appropriate work-experience course. To receive credit, students must work at least 5 hours weekly in an approved position. The College helps students in the course find internship opportunities or salaried employment. Placement depends upon students' abilities and records, employers' requirements, and economic conditions. Students are supervised by both employers and instructors. Students may apply toward graduation a maximum of eight semester units earned in work experience courses.

Associate in Science Degree. The four majors in Environmental Horticulture and Floristry are designed so that students may satisfy the major requirement for graduation from the College with a Associate in Science degree.

Transfer to Other California State Universities. Students who complete any of the following curricula satisfactorily may transfer to California Polytechnic State University, San Luis Obispo; California State Polytechnic University, Pomona; or California State University, Fresno and work toward the degree of Bachelor of Science in Environmental Horticulture.
Environmental Horticulture

Commercial Cut-Flower and Greenhouse Production Major (AS)

Students who satisfactorily complete the Curriculum in Commercial Cut-Flower and Greenhouse Production, a two-year course of study, are qualified for employment in the cut-flower and greenhouse production industries in the following capacities: cut-flower grower, groundskeeper, flower shipper, plant propagator, plant salesperson, and pot-plant grower.

The course of study includes instruction in commercial cut-flower and greenhouse production, principles of environmental horticulture, plant identification, the use of horticultural machines, and business practices in the environmental horticultural industry.

Students who complete the curriculum and other graduation requirements receive the Associate in Science in Commercial Cut-Flower and Greenhouse Production.

Courses Required for the Major in Commercial Cut-Flower and Greenhouse Production

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>O H 50 Intro to Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 56 Horticulture Machines</td>
<td>3</td>
</tr>
<tr>
<td>O H 76 Fall &amp; Winter Plant Ident</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>O H 58 Comm Cut-Flower &amp; Greenhouse Prod</td>
<td>3</td>
</tr>
<tr>
<td>O H 77 Spring &amp; Summer Plant Ident</td>
<td>4</td>
</tr>
<tr>
<td>R F 81 Flower &amp; Foliage I.D. &amp; Care</td>
<td>2</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>O H 63 Soils</td>
<td>3</td>
</tr>
<tr>
<td>O H 65 Reprod of Ornamental Plants</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 11 Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>R F 82 Indoor Plant I.D. &amp; Care</td>
<td>2</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>O H 60 Bus Practices in Environ Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 75 Pest Control</td>
<td>3</td>
</tr>
<tr>
<td>O H 97 Wk Exper</td>
<td>3</td>
</tr>
<tr>
<td>O H 70A Landscaping Design or O H 71A Landscape Construction</td>
<td>3 or 4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>42 - 43</td>
</tr>
</tbody>
</table>

Recommended electives: ACCT 10, SMBS 135

Landscape Gardening and Landscape Contracting Major (AS)

Training in the curriculum in Landscape Gardening and Landscape Contracting, a two-year course of study, is planned so that graduates, depending upon their interests, abilities, and achievement, may qualify for employment in a wide variety of capacities. Positions that graduates may hold in private employment, or for which they may take civil-service examinations, include those of landscape maintenance gardener, estate gardener, municipal gardener, landscape installer or contractor, landscape designer, nursery specialist, horticultural or agricultural inspector, highway landscape supervisor, tree-maintenance technician, school or community garden coordinator, irrigation technician, landscape restoration worker, athletic field or golf course groundskeeper, or landscape consultant. Other positions include: garden sales, growers, horticultural supply sales, interiorscape technicians or supervisors, irrigation design or sales and arborist.

The course of study includes instruction in principles of landscape design and landscape construction, principles of environmental horticulture, plant identification, landscape horticulture, and business practices in the environmental-horticultural industry.

Students who complete the curriculum and other graduation requirements receive the Associate in Science in Landscape Gardening and Landscape Contracting.

Courses Required for the Major in Landscape Gardening and Landscape Contracting

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>O H 50 Intro to Ornamental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 56 Horticulture Machines</td>
<td>3</td>
</tr>
<tr>
<td>O H 76 Fall and Winter Plant Ident</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 11 Basic Publ Speak</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>O H 53A Landscape Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 63 Soils</td>
<td>3</td>
</tr>
<tr>
<td>O H 75 Pest Control</td>
<td>3</td>
</tr>
<tr>
<td>O H 77 Spring and Summer Plant Ident</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>O H 53B Landscape Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 70A Prin of Landscaping Design</td>
<td>3</td>
</tr>
<tr>
<td>O H 71A Prin of Landscaping Construct</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>O H 60 Bus Practices in Environ Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 70B Adv Landscape Design</td>
<td>3</td>
</tr>
<tr>
<td>O H 71B Prin of Landscaping Construct</td>
<td>4</td>
</tr>
<tr>
<td>O H 97 Wk Experience</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>49</td>
</tr>
</tbody>
</table>

Recommended electives: ACCT 10, SMBS 135

Nursery and Garden-Center Operation Major (AS)

Students who complete the curriculum in Nursery and Garden-Center Operation satisfactorily are qualified for employment in the wholesale and retail nursery businesses as growers, propagators, salespeople, and seed brokers. Graduates of this two-year course of study may also take civil-service examinations for positions as pest-control applicators and
The course of study includes instruction in nursery operation, principles of environmental horticulture, plant identification, the use of horticultural machines, and business practices in the environmental-horticulture industry.

Students who complete the curriculum and other graduation requirements receive the Associate in Science in Nursery and Garden-Center Operation.

**Courses Required for the Major in Nursery and Garden-Center Operation**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 50 Intro to Ornamental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 56 Horticulture Machines</td>
<td>3</td>
</tr>
<tr>
<td>O H 76 Fall and Winter Plant Ident</td>
<td>4</td>
</tr>
<tr>
<td>O H 63 Soils</td>
<td>3</td>
</tr>
<tr>
<td>O H 75 Pest Control</td>
<td>3</td>
</tr>
<tr>
<td>O H 76 Fall and Winter Plant Ident</td>
<td>4</td>
</tr>
<tr>
<td>O H 77 Spring and Summer Plant Ident</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 11 Basic Public Speak</td>
<td>3</td>
</tr>
</tbody>
</table>

To earn the Certificate of Achievement, select one of the areas of specialization:

**Landscaping Maintenance Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 53A and 53B Landscape Horticulture</td>
<td>6</td>
</tr>
</tbody>
</table>

**Nursery and Garden-Center Operation Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 57A Wholesale Nursery Operations</td>
<td>3</td>
</tr>
<tr>
<td>O H 65 Reprod of Ornamental Plants</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 11 Basic Public Speak</td>
<td>3</td>
</tr>
<tr>
<td>O H 70A Landscaping Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Commercial Cut-Flower Greenhouse Production Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 58 Greenhouse Operations</td>
<td>6</td>
</tr>
<tr>
<td>O H 70B Retail Nursery Management</td>
<td>3</td>
</tr>
<tr>
<td>O H 60 Bus Practices in Environ Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 97 Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>O H 71A Landscaping Construct</td>
<td>4</td>
</tr>
</tbody>
</table>

**Landscape Design Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 70A Principles of Landscaping Design</td>
<td>6</td>
</tr>
<tr>
<td>O H 70B Adv Prin of Landscape Design</td>
<td>6</td>
</tr>
</tbody>
</table>

**Floristry Major (AS)**

Instruction in retail floristry is offered in cooperation with the San Francisco Bay Area Retail Florists Association and California State Florists Association.

Enrollment is open to all interested students.
The two-year course of study is designed to give students thorough and well-balanced training in buying flowers, in the art of arranging and selling them to the public, and in operating a retail flower shop. Students who complete the curriculum satisfactorily are qualified for employment as designers and salespersons in the retail-floral industry.

The course of study includes instruction in the following: beginning, intermediate and advanced floral design, flower shop procedures, "hands-on" floral work experience, flower shop management, merchandising, marketing, basic business arithmetic, and record keeping. Students who complete the curriculum and other graduation requirements receive the Associate in Science in Floristry.

Courses Required for the Major in Floristry

Course Units
First Semester
BSMA J* Basic Business Arithmetic 2
R F 80A Flower Shop Proc & Basic Design 5
R F 81 Flower and Foliage Identification 2
R F 85 Introduction to Flower Arranging 2
Additional graduation requirements
Second Semester
ACCT 10 (or equivalent) Intro to Account 4
R F 80B Intermediate Floral Design 5
R F 82 Interior Plant Identification 2
Additional graduation requirements
* Not required of students who have passed the City College placement examination in mathematics. Students who have passed this examination should take an elective in lieu of BSMA J.

Third Semester
R F 80C Advanced Floral Designs 3
R F 86 Oriental Style Floral Arranging 1.5
R F 98 Work Experience 3
Additional graduation requirements
Fourth Semester
MRKT 140 Principles of Marketing 3
R F 84 Flower-Shop Oper 3
R F 98 Work Experience 3
Additional graduation requirements

Total Units 38.5

Recommended electives: ART 130; BSEN 74, 76; CLW 18; MRKT 122, 170; SMBS 135; PSYC 26

Announcement of Courses

Environmental Horticulture

Credit, Degree Applicable Courses:
O H 50. Introduction to Environmental Horticulture (3)
Lec-2, lab-3, field trips
Overview of the field of environmental horticulture: nursery and greenhouse production; landscape design, installation and maintenance; arboriculture; turf. Career opportunities are explored. Introduction to technical aspects of horticulture including plant anatomy, soils and amendments, fertilizers, composting, plant propagation, planting and transplanting, irrigation, landscape and turf maintenance, pruning, pest control, tree care. Hands-on practice of plant propagation, planting and transplanting; pruning, preparation of growing media and other horticultural skills. CSU/UC

O H 53A-53B. Landscape Horticulture (3-3)
Lec-2, lab-4, field trips
Advise: O H 53A: O H 50 and completion/concurrent enrollment in O H 76 or 77
Principles of garden planting and practical laboratory experiences on the college campus. Care and maintenance of established gardens; including, but not limited to, irrigation and sprinkler systems, drainage and erosion control, xeriscape and mulches, monthly maintenance, maintenance estimates, proposals and contracts. CSU

O H 54. Turfgrass Management (1.5)
Lec-1, lab-2, field trips
Advise: O H 50 and 53A or demonstration of exit skills
Establishment and care of turf areas. Uses of turf in landscape. Site preparation, species selection, and planting of seed, sod and hydrosed. Turf maintenance including mowing, irrigation, fertilization, thatch management, aeration and renovation. Identification and control of turf pests. Care of specialized turf areas including golf-greens and athletic fields. Use and operation of irrigation and maintenance equipment. CSU

O H 55. Tree Care (3)
Lec-2, lab-3, field trips P/NP available
Advise: O H 50, 53A; and completion/concurrent enrollment in O H 76 or 77
The care and management of large ornamental trees common to residential, public and industrial landscaping. Stresses correct staking, irrigating and fertilizing of ornamental trees as well as diagnostic cavity work, bracing, cabling and pruning. The use of ropes and other safety equipment in the skill of professional tree climbing is emphasized. CSU

O H 56. Horticulture Machines (3)
Lec-2, lab-3, field trips
Advise: O H 50 and completion/concurrent enrollment in O H 50
Field and shop practice in the operation of horticultural equipment such as the sod cutter, tender, aerator, chipper/shredder, and chain saw. Proper use of mowers and rototillers, as well as heavy equipment, such as tractors and skip loaders. Repair, maintenance, and preventative procedures for small engines including Briggs and Stratton, Honda, Wisconsin, and Tecumseh. CSU

O H 57A. Wholesale Nursery Operations (3)
Lec-2, lab-3, field trips
Advise: O H 50 and 65, and O H 76 or 77, or demonstration of exit skills
Cultural practices and management of wholesale nursery operations from groundcovers and perennials to specimen trees. Emphasis on container production. Propagation and planting, nursery structures and equipment, growing media, irrigation, growth management, pest control, post-harvest operations. Management topics include site selection, nursery organization, industry standards, shipping, laws and regulations, niche marketing. Careers explored. CSU

O H 57B. Retail Nursery Operations (3)
Lec-2, lab-3, field trips
Advise: O H 50, 75, and O H 76 or 77, or significant field experience
Overview of the retail trade. Preparation for the California Association of Nurserymen's certification exam, introduction to marketing and management techniques, and practical training for employment in the nursery or garden center. Examines a wide variety of retail operations
including mass market outlets, small specialized nurseries, catalog
operations, single-store businesses, small and large chain stores, and
“high end” specialty shops. CSU

O H 58. Greenhouse Operations (3)
Lec-2, lab-3, field trips
Advise: O H 50, 65, and O H 76 or 77, or significant field
experience
Overview of commercial greenhouse operations including materials
and construction, heating and cooling systems, containers and green-
house equipment; crops surveyed include foliage, cut flowers, potted
flowering plants; emphasis on bedding plants; management of growing
medium, irrigation, fertilization, growth regulators, CO2, light and
temperature; alternative cropping systems, post-production handling,
and marketing discussed. CSU

O H 60. Business Practices in Environmental Horticulture (3)
Lec-3
Practical business practices in various branches of environmental
horticulture including estimating, sales and service, public relations,
budgets and record keeping, and starting a business. CSU

O H 63. Soils (3)
Lec-2, lab-3, field trips
Advise: O H 50 or significant field experience
Introduction to soils and growing media as encountered in
Environmental Horticulture. Preparation and management of field and
container soils. Soil composition and texture, soil chemistry, organic
matter, colloids, soil structure, soil water and pH, plant nutrients and
fertilizers, amendments, composting, beneficial soil organisms and dis-
eases, drainage and irrigation. Managing turf, landscape and container
soils. CSU

O H 65. Plant Propagation (3)
Lec-2, lab-3, field trips
Advise: O H 50 or significant field experience
Principles and practices of reproducing plants as commercially prac-
ticed in the horticulture industry. Topics include propagation by seed
and vegetative methods including cuttings, layering, division, grafting,
and micro-propagation. CSU

O H 66. Irrigation (2)
Lec-1, lab-3, field trips
Advise: O H 50, 53A, or significant field experience
Basics of design, installation, maintenance, and troubleshooting of
sprinkler and drip irrigation systems. Emphasis on landscape and turf
irrigation. Nursery and greenhouse irrigation. Topics include establish-
ing hydrozones, providing drainage, calculating pressure and flow
requirements, system design and installation, equipment and fittings,
avtomatic control systems and water conserving technologies. CSU

O H 70A. Principles of Landscaping Design (3)
Lec-2, lab-3, field trips
Lectures, reading assignments, and hands-on laboratory projects
involving the principles of landscape design, especially as applied to
residential properties. Graphic drafting techniques are included. CSU

O H 70B. Advanced Principles of Landscape Design (3)
Lec-2, lab-3, field trips
Advise: O H 70A
Principles of advanced landscape design, especially as applied to resi-
dential properties. CSU

O H 71A. Landscape Construction (4)
Lec-2, lab-6, field trips
Principles of landscape construction, especially as applied to construc-
tion safety, tools, hardware, lumber, fences, gates, benches, decks, steps,
paints, stains, concrete paving, concrete blocks, stone walls, and other
physical aspects of landscape construction. CSU

O H 71B. Landscape Construction (4)
Lec-2, lab-6, field trips
Projects dealing with the use of bricks, concrete blocks, drainage, irri-
gation, fountains, pumps, landscape surveying, and estimating. CSU

O H 75. Pest Control (3)
Lec-3, field trips
Advise: O H 50 or significant field experience
An overview of pest management in landscape, greenhouse, and
nursery operations; introduction to the identification, life cycles and
damage of common pests; emphasis on integrated pest management
techniques with an introduction to cultural, mechanical, biological,
and least-toxic chemical controls; legal requirements applicable to the
safe use of pesticides; preparation for the State Qualified Applicator
Certificate examination; QAC/QAL continuing education credit avail-
able. CSU

O H 76. Fall and Winter Plant Identification (4)
Lec-3, conf-1, field trips
Identification of approximately 150 ornamental trees, shrubs, vines,
and perennials commonly used in the San Francisco Bay Area for fall
and winter bloom, fruit, or foliage. Covers basic plant anatomy and
terminology used in the taxonomic classification of plants. Emphasis
on cultural requirements, habits of growth and landscape use of plants.
CSU/UC

O H 77. Spring and Summer Plant Identification (4)
Lec-3, conf-1, field trips
Identification of approximately 150 ornamental trees, shrubs, vines,
and perennials commonly used in the San Francisco Bay Area for
spring and summer bloom, fruit, or foliage. Covers basic plant anat-
omy and terminology used in the taxonomic classification of plants.
Emphasis on cultural requirements, habits of growth and landscape
use of plants. CSU/UC

O H 91-92-93. Independent Study (1-2-3)
Conf-1, lab-3,6,9, field trips
P/NP available
Prereq.: 6 units of O H course work and project approval
Research dealing with a special topic in Environmental Horticulture.
Allows students the opportunity to investigate horticultural problems
of special interest or conduct an in-depth project. Emphasis on practi-
cal application and current issues in horticulture. CSU

O H 97. Work Experience (1-4)
Conf-1, work-5 per unit, field trips
Prereq.: completion of 6 units in environmental horticultural; approval of O H Work Experience Coordinator
Repeat: max. 9 units
Field application of principles and practices taught in horticulture
courses. A supervised work experience program with cooperating
employers, providing students with hands-on experience and a smooth
transition into commercial practice. Students acquire job experience in
their chosen field of horticulture. Preparation of job applications and
resumes. Interview and career development skills discussed. CSU
O H 101. Garden Practices (3)
Lec-3, field trips
Topics include basic tools, soil improvement and composting, planning a garden adapted to climate and microclimate, plant selection, seed germination, transplanting, watering and water conservation, pest management (using integrated, least-toxic methods), and basic maintenance, including pruning. Plants discussed include annuals, bulbs, perennials, groundcovers, lawns, shrubs, trees, vegetables, fruit shrubs and trees, drought-tolerant plants, street trees, and houseplants. Appropriate for students seeking careers in horticulture as well as for home gardeners. CSU

O H 102. Greenhouse Crops (3)
Lec-2, lab-3, field trips
Advisers: O H 50, 69, and O H 76 or 77, or Demonstration of Exit Skills
Propagation, culture, post-harvest handling and care of principle greenhouse crops. Foliage and cut flowers including roses and carnations. Emphasis on potted flowering plants including poinsettias, azaleas, hydrangeas, chrysanthemums, cyclamen, geraniums, lilies, and other forced bulbs. Discussion of pests, alternative crops, and field-grown flowers. CSU

O H 104. Principles of Landscaping (3)
Lec-3
Fundamentals of and practices in designing the small home garden. CSU

O H 111-112-113. Selected Topics in Ornamental Horticulture (1-3)
Lec-1 to 3; lab-1 to 3, field trips
Advisors: O H 50
Repeat: if no subject repeat
Investigation in depth of selected topics in horticulture. Consideration of current issues and innovations; expansion of subjects covered briefly in introductory courses. CSU

O H 111A. Year-Round Garden Color (1)
O H 111B. Orchids (1)
O H 111C. Container Gardening (1)
O H 111D. Introduction to Xeriscaping (1)
O H 111E. Vegetables & Herbs: Fall (1)
O H 111F. Vegetables & Herbs: Spring (1)
O H 111G. Vegetables & Herbs: Summer (1)

Floristry

Credit, Degree Applicable Courses:
R F 80A. Flower Shop Procedures and Basic Designs (5)
Lec-3, lab-6, field trips
Beginning floral design and arrangement techniques commonly used by professional flower artists. Practical application in identifying and constructing numerous floral designs, including arrangements for home interiors, parties, hospital, sympathy, and other decorative and special occasions. Includes corsage and body flower designing as well as identification of aesthetic and mechanical accessories common to the floral industry. Appropriate use of the principles and elements of design are stressed. CSU

R F 80B. Intermediate Floral Design (5)
Lec-3, conf-1, lab-5, field trips
Prerequisites: R F 80A
Intermediate study of and practice in professional flower arranging techniques used by the floral industry. Emphasis on sympathy tributes, window and store display, oriental, high style design and European floral design. CSU

R F 80C. Advanced Floral Design (3)
Lec-2, conf-2, lab-1, field trips
Prerequisites: R F 80B
Advanced principles and techniques for designing, coordinating, and installing floral displays for weddings, parties, churches, receptions, residences, and corporate and hotel accounts. Traditional, contemporary, and European style designs for wedding bouquets, personal flowers, and arrangements. Business aspects such as consulting, selling, planning, and pricing. CSU

R F 81. Flower and Foliage Identification/Culture and Care (2)
Lec-2, field trips
Repeat: max. 4 units
Identification of cut flowers and foliage used in commercial floristry, with emphasis on post-harvest care and handling, vase life, wholesale packaging, pricing, and uses in floral designing. CSU

R F 82. Interior Plant Identification (2)
Lec-2, field trips
Identification of indoor/tropical house plants used in commercial floristry, with emphasis on post-harvest care and handling, culture, wholesale packaging, pricing, and uses in floral design. CSU

R F 84. Flower-Shop Operations (3)
Lec-3, field trips
Principles and practices of flower-shop operation including salesmanship, types of shops, merchandising, buying, advertising, delivery, and personnel. CSU

R F 85. Introduction to Flower Arranging (2)
Lab-3, field trips.
Repeat: max. 4 units
Students provide own materials.
Introduction to basic flower arranging, flower and foliage use, care and handling of fresh materials, use of everlasting materials, flower forms, types and use of containers. Basic historical periods and styles of decorating for beginners. CSU

R F 86. Oriental Style Flower Arranging (1.5)
Lec-1, lab-2, field trips
Repeat: max. 6 units
Students provide own materials.
Overview, understanding and appreciation of oriental style flower arrangement, known generally as Ikebana. Emphasis on principles of designs, experimentation, technique, exploration, and critique intended to develop creativity and manipulative ability. CSU

R F 88. Designs in Floristry (2)
Lec-1, conf-1, lab-1, field trips
Repeat: max. 4 units
An in-service training program for those engaged in the field of floristry and also for those students currently enrolled in the Retail Floristry Department. Guest lecturer-demonstrators. Design work in corsages, vase arrangements, memorial flowers, and wedding work. CSU

R F 98. Work Experience (1-4)
Conf-1, work-5 (ea unit)
Prerequisites: Approval of RF Work Experience Coordinator
Repeat: max. 6 units
A supervised work experience program including work with pay, at an approved retail flower shop. Designed to provide the student with
an opportunity to learn and practice skills with instructor and professional guidance. CSU

Ethnic Studies


Fashion

Office: Batmale 210
Phone Number: (415) 239-3588
Web Site: www.ccsf.edu/fashion

Announcement of Curricula

General Information

The Fashion Department is dedicated to teaching the requisite skills needed for success in all aspects of the fashion industry. The curricula offer students interested in careers in fashion merchandising, design and image consulting, specialized programs and training for career advancement and employment.

Admission. Enrollment is open to all interested students.

Degree Curriculum. The Degree Curriculum in Fashion Merchandising, a two-year course of study, offers students a degree (38-42 units) in Fashion Merchandising. The combination of classroom instruction coordinated with part-time off-campus employment, is designed to help students advance to mid-management positions in the retail, manufacturing and wholesaling industry.

Fashion Merchandising Major (AS)

Upon completion of the Curriculum in Fashion Merchandising, a two-year course of study, students will be qualified to work as sales associates, merchandise specialists, retail managers, retail buyers and assistant buyers, visual merchandisers, stylists, fashion show producers, special events consultants, fashion coordinators, fashion writers and publicists, fashion forecasters, show room assistants, and bookers in modeling agencies. All positions include working for department stores, specialty stores, boutiques, private companies, as well as working as entrepreneurs.

Classes include all areas of the fashion merchandising field and are designed to give students exposure to a variety of fashion experiences. A Major in Fashion Merchandising gives students improved job prospects.

Students who complete each of the following courses, and complete the Graduation requirements for the Associate in Science Degree, will satisfy the requirements for the Fashion Merchandising Major.

Courses Required for the Major in Fashion Merchandising

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSMA 66 Business Mathematics</td>
<td></td>
</tr>
<tr>
<td>or BSMA 68 Mathematics of Business</td>
<td></td>
</tr>
<tr>
<td>or MATH E1 Basic Mathematics</td>
<td></td>
</tr>
<tr>
<td>or MATH E3 Basic Mathematics</td>
<td>2 or 3</td>
</tr>
<tr>
<td>or MATH E4 Basic Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>FASH 22 Textile Analysis</td>
<td></td>
</tr>
<tr>
<td>or FASH 57 Fabric Glossary</td>
<td>1 or 3</td>
</tr>
<tr>
<td>FASH 42 Introduction to Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASH 44 Fashion Retail Buying</td>
<td>3</td>
</tr>
<tr>
<td>FASH 46 Fashion Merchandising</td>
<td>3</td>
</tr>
</tbody>
</table>

FASH 47 Fashion Coordination .......................... 3
FASH 48 Fashion Show Production ......................... 4
FASH 49 Visual Merchandising ............................ 3
FASH 50 Runway: The Business of Modeling
or FASH 54B Advanced Fashion Styling
or FASH 45A Image Consulting ............................. 3
FASH 53 Fashion Forecasting .............................. 3
FASH 54A Fashion Styling .................................. 3
FASH 56 Fashion Writing and Publicity ................... 3
FASH 60 Field Work in Fashion Merchandising ............. 1
FASH 61 Work Experience in the Fashion Industry
or FASH 62 Work Experience in
Image Consulting ........................................... 3
Additional graduation requirements
Total Units .............................................. 38-42

Recommended electives: ACCT 1, 10; ART 101-108, 138; BSEN 70, 74; FASH 23; MRKT 122, 140, 148, 170; MABS 101, 405, 406; SPCH 11, 12; SMBS 135; SMBU 9415, 9421.

Fashion Design Major (AS)

Students may major in Fashion Design as well as receive a Certificate of Achievement. Students who complete each of the requisite courses, and complete the graduation requirements for the Associate in Science Degree, will satisfy the requirements for the Fashion Design Major. The curriculum in Fashion Design, a two-year course of study (51) combines classroom instruction with a part-time internship that is designed to help students qualify for employment as assistant designers, fashion illustrators, assistant patternmakers, and product developers. Positions to which graduates have advanced after gaining experience include those of designers, technical designers, and patternmakers. All positions include working for large and small companies as well as entrepreneurship.

Design training can lead to careers as fashion illustrators, designers, assistant designers, patternmakers, product developers and entrepreneurs.

Courses Required for the Major in Fashion Design

Course                                Units

First Semester-Fall
FASH 15A Apparel Construction I ............ 3
FASH 21 Fashion Careers ....................... 1
FASH 22 Textile Analysis ....................... 3
FASH 27 Fashion Draping ......................... 3
FASH 35A Fashion Illustration .................. 3

Second Semester-Spring
FASH 15B Apparel Construction II .............. 3
FASH 23 Fashion History .......................... 3
FASH 26 Flat Pattern Design I .................. 3
FASH 36 Fashion Design ......................... 3

Third Semester-Fall
FASH 15C Apparel Construction III ............. 3
FASH 35B Fashion Illustration II ............... 3
FASH 55 Icons of Contemporary Design .......... 3
FASH 67 Computerized Pattern Development: Gerber 3

Fourth Semester-Spring
FASH 33 Design Portfolio in Fashion ........... 3
FASH 37 Flat Pattern Design II .................. 3
FASH 51 Creating a Garment Business ............ 3
FASH 63 Fashion Design and
Production Internship ............................. 2
GRPH 112 Digital Illustration for Fashion .......... 3
Total Units .................................. 51
Recommended Electives: ART 125A, 125B, 132A, 132B; FASH 29, 34, 42, 46, 53, 54, 66; GRPH 25, 98A, 100A

**Fashion Design Certificate**

<table>
<thead>
<tr>
<th>Courses Required for the Certificate of Achievement in Fashion Design</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester-Fall</td>
<td></td>
</tr>
<tr>
<td>FASH 15A Apparel Construction I ......................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 21 Fashion Careers .................................. 1</td>
<td></td>
</tr>
<tr>
<td>FASH 22 Textile Analysis ................................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 27 Fashion Draping .................................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 35A Fashion Illustration I ............................ 3</td>
<td></td>
</tr>
<tr>
<td>Second Semester-Spring</td>
<td></td>
</tr>
<tr>
<td>FASH 15B Apparel Construction II ........................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 23 Fashion History .................................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 26 Flat Pattern Design I ................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 36 Fashion Design ...................................... 3</td>
<td></td>
</tr>
<tr>
<td>Third Semester-Fall</td>
<td></td>
</tr>
<tr>
<td>FASH 15C Apparel Construction III ........................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 35B Fashion Illustration II ............................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 55 Icons of Contemporary Design ........................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 67 Computerized Pattern Development: Gerber .......... 3</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester-Spring</td>
<td></td>
</tr>
<tr>
<td>FASH 33 Design Portfolio in Fashion ....................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 37 Flat Pattern Design II ............................. 3</td>
<td></td>
</tr>
<tr>
<td>FASH 51 Creating a Garment Business ....................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 63 Fashion Design and Production Internship .......... 2</td>
<td></td>
</tr>
<tr>
<td>GRPH 112 Digital Illustration for Fashion ................ 3</td>
<td></td>
</tr>
<tr>
<td>Total Units ............................................... 51</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Electives: ART 125A, 125B, 132A, 132B; FASH 29, 34, 42, 46, 53, 54, 66; GRPH 25, 98A, 100A

**Fashion Merchandising Certificate**

The Certificate of Achievement in Fashion Merchandising (38–42 units) fulfills the needs of two groups: those who desire to prepare for employment in the fashion merchandising field and those currently employed who wish to improve their on-the-job skills in this industry.

<table>
<thead>
<tr>
<th>Courses Required for the Certificate of Achievement in Fashion Merchandising</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td></td>
</tr>
<tr>
<td>BSMA 66 Business Mathematics</td>
<td></td>
</tr>
<tr>
<td>or BSMA 68 Mathematics of Business</td>
<td></td>
</tr>
<tr>
<td>or MATH E3 Basic Mathematics ................. 2 or 3 or 4</td>
<td></td>
</tr>
<tr>
<td>FASH 22 Textile Analysis</td>
<td></td>
</tr>
<tr>
<td>or FASH 57 Fabric Glossary ................. 1 or 3</td>
<td></td>
</tr>
<tr>
<td>FASH 42 Introduction to Fashion Industry ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 44 Fash Retail Buying ............................. 3</td>
<td></td>
</tr>
<tr>
<td>FASH 46 Fash Merch ................................. 3</td>
<td></td>
</tr>
<tr>
<td>FASH 47 Fash Coordination ......................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 48 Fash Show Prod ............................ 4</td>
<td></td>
</tr>
<tr>
<td>FASH 49 Visual Merchandising ............................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 50 Runway: The Business of Modeling</td>
<td></td>
</tr>
<tr>
<td>or FASH 54B Advanced Fashion Styling</td>
<td></td>
</tr>
<tr>
<td>or FASH 45A Image Consulting ........................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 53 Fashion Forecasting .......................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 54A Fashion Styling ................. 3</td>
<td></td>
</tr>
<tr>
<td>FASH 56 Fashion Writing and Publicity ............................... 3</td>
<td></td>
</tr>
<tr>
<td>FASH 60 Field Work ................. 1</td>
<td></td>
</tr>
<tr>
<td>FASH 61 Fash Work Exp ................................. 3</td>
<td></td>
</tr>
<tr>
<td>or FASH 62 Work Exp in Image Consulting .................. 3</td>
<td></td>
</tr>
<tr>
<td>Total Units ............................................... 38–42</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Electives: ACCT 1, 10; ART 101–118, 138; BSEN 70, 74; FASH 23, 28; MRKT 122, 140, 170; PSYC 26; SPCH 11

**Fashion Styling Certificate**

The Certificate of Accomplishment in Fashion Styling is a hands-on field-based program that teaches students the skills required to become professional stylists. It includes instruction in assembling a styling kit, the different aspects of merchandise styling, and sources of styling inspiration. Students completing this certificate will be qualified for employment as photo, fashion show, film, and video stylists.

**Learning Outcomes**

Upon completion of this certificate, students will be able to:

1. Demonstrate skills for styling merchandise.
2. Develop the ability to design a set for a photoshoot test.
3. Analyze time and people management skills.

Students must complete each course with a grade of “C” or higher. Where applicable, grades of “Pass” may be used.

<table>
<thead>
<tr>
<th>Courses Required for the Certificate of Accomplishment in Fashion Styling</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td></td>
</tr>
<tr>
<td>FASH 47 Fashion Coordination ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 53 Fashion Forecasting ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 54A Fashion Styling ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 54B Advanced Fashion Styling ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 60 Field Work in Fashion Merchandising ........................................ 1</td>
<td></td>
</tr>
<tr>
<td>FASH 61 Work Experience in Fashion Industry ............................ 3</td>
<td></td>
</tr>
<tr>
<td>or FASH 33 Design Portfolio ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>Total Units ............................................... 16</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Electives: FASH 45A, 45B; MRKT 148

**Image Consulting Certificate**

The Image Consulting Program is designed to prepare students for careers as image consultants, personal shoppers, stylists, sales associates. They can either work independently or for a retailer. Coursework will incorporate skills such as color and wardrobe selection, figure analysis, and setting up a business.

<table>
<thead>
<tr>
<th>Courses Required for the Certificate of Accomplishment in Image Consulting</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td></td>
</tr>
<tr>
<td>FASH 45A Image Consulting ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 45B Advanced Image Consulting ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 47 Fash Coordination ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 54A Fashion Styling ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>FASH 60 Fashion Field Work ........................................ 1</td>
<td></td>
</tr>
<tr>
<td>FASH 62 Work Experience in Image Consulting ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>Total Units ............................................... 16</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Electives: ART 125A, 125B, 126; BSEN 70; BSEN 74; SMBS 135; MABS 60

**Textiles Certificate**

The objective of the Certificate of Achievement in Textiles is to offer students a diverse array of techniques ranging from the fundamentals...
of loom controlled multi-harness weaving to designing woven textiles using advanced weave structures. Students explore methods of fabric manipulation in two and three dimensional surface designs using painting, stamping, stenciling, silk screening, and other techniques. Emphasis is on both conceptual and practical skills development. Positions available to graduates include Knitwear and Woven Product Developers, Textile Designers, Weavers, Fabric Developers, and Fiber Artists.

Courses Required for the Certificate of Achievement in Textiles

Course Units
FASH 15A Apparel Construction I 3
FASH 22 Textile Analysis 3
FASH 25A Weaving I 2
FASH 25B Weaving II 2
FASH 25C Weaving III 3
FASH 64 Fashion Surface Design I 3
FASH 65 Fashion Surface Design II 3
FASH 71 Apparel Art 2

Total Units 21

Recommended Electives: ART 125A, 125B, 126

Textile and Fabric Design Noncredit Certificate

The fashion technology courses and certificates teach the skills needed in fashion sewing, alteration, textile and fabric design and formation, and upholstery.

Course Hours
FASH 6006 Expanded Woven Design 72
FASH 6008 Weaving Tapestry 72

Plus ONE elective course from the following:
FASH 6005 Weaving-Beginning 70
FASH 6007 Art Weaving 70
FASH 6025 Quiltmaking 54
FASH 6027 Surface Design-3-dimensional 54
Total Hours 198–214

Announcement of Courses

Credit, Non-Degree Applicable Courses:
FASH A. Introduction to Sewing (1)
Lec-8, lab-24 (total hrs) P/NP Available
Repeat: max. 2 units
Introduction to Sewing. Students will learn the basics of sewing machines, how to make minor repair to clothing, and how to construct a basic rectangular item in fabric. A good choice for the novice before moving on to FASH 15A, Apparel Construction I.

NOTE: Some courses include a materials fee.

Credit, Degree Applicable Courses:
FASH 15A. Apparel Construction I (3)
Lec-2, lab-3 P/NP available
A beginning course utilizing basic principles and concepts in the clothing field. Emphasis on skills and techniques, pattern analysis, selection, fitting and construction processes. Students will construct 2-3 garments. CSU

FASH 15B. Apparel Construction II (3)
Lec-2, lab-3 P/NP available
Prereq.: FASH 15A
Repeat: max. 6 units
Elements of garment construction using advanced clothing construction methods and techniques; pattern alterations, couturier patterns and custom finishes. Techniques for sewing hard-to-handle fabrics and stretch knits. Use of serger for construction of garments. Students will construct a garment utilizing techniques from class. CSU

FASH 15C. Apparel Construction III (3)
Lec-2, lab-3 P/NP available
Prereq.: FASH 15B or demonstrated skills
Repeat: max. 9 units
Students will learn the specialized skills needed to design and create tailored and structured garments using traditional hand methods and industry shortcuts. Course will include elements and proper fit of a tailored garment, choosing appropriate materials, as well as creating shape with tailoring techniques. CSU

FASH 16. Garment Fitting Techniques (3)
Lec-2, lab-3 P/NP Available
Repeat: max. 6 units
Introduction to fitting on a live model. Students will learn to identify and correct fitting problems on a sample muslin garments, including bodices, skirts, pants and jackets. Students will then learn how to transfer those adjustments to the pattern to create well-fitting production patterns. Fitting issues for knit and stretch fabrics will also be addressed. CSU

FASH 21. Fashion Careers (1)
Lec-1, field trips
An overview of career opportunities within the fashion industry, with specific guidelines to assist students who are looking for ways to direct their interests and talents. CSU

FASH 22. Textile Analysis (3)
Lec-3
Analysis of natural and man-made fibers, fabric construction and special finishes; characteristics that determine use, performance and care; innovations in the textile field, dyes, printing processes and fabric tests. CSU/UC

FASH 23. Fashion History (3)
Lec-3
Chronological study of costumes from antiquity to the present. Western, eastern and folk influences included. Analysis of sources of fashion design developed from influences of history and culture upon clothing. CSU

FASH 25A. Weaving I (2)
Lec-1, lab-3
Repeat: max. 6 units
A beginning course in the fundamentals of loom controlled multi-harness weaves. Emphasis on the fundamentals of fiber classification, yarn calculation, comprehensive drafting, weave analysis and fabric finishing techniques. CSU

FASH 25B. Weaving II (2)
Lec-1, lab-3, field trips
Prereq.: FASH 25A
Repeat: max. 6 units
Introduction to designing woven textiles using advanced weave structures. Students learn to select yarns, weaves, and equipment and design original textiles. CSU
FASH 25C. Weaving III (3)
Lec-2, lab-3, field trips                      P/NP available
Repeat: max. 9 units
In further developing the students' knowledge of weave structures, emphasis is placed on theory and design. A major focus will be integrated surface design techniques with woven cloth to create signature fabrics. CSU

FASH 26. Flat Pattern Design I (3)
Lec-2, lab-3, field trips                      P/NP available
Repeat: max. 6 units
Principles and techniques of designing a garment pattern using flat pattern methods. Students construct a basic fitting sloper, analyze advanced pattern design problems and create an original design finished garment. CSU

FASH 27. Fashion Draping (3)
Lec-2, lab-3                                P/NP available
Repeat: max. 6 units
Draping for garment design and fit. Techniques and concepts of draping the human figure using cloth as the starting point. Draping a fitting shell, draping with special fabrics and draping for unusual design problems. CSU

FASH 28. The Social Meaning of Clothing (2)
Lec-2
The interrelationship of clothing and culture, including the psychological aspects of clothing and human behavior. Analysis of clothing use as a social tool. Comparison of regional and class differences as represented by clothing. CSU/UC

FASH 29. Pattern Grading (1)
Lec-.5, lab-1.5, field trips                  P/NP available
Theories and techniques for grading patterns into multiple sizes, including principles of fit, how the body grows, and various size ranges. Conventional methods are used to practice the basic principles of grading on a variety of pattern types. CSU

FASH 33. Design Portfolio in Fashion (3)
Lec-3                                        P/NP available
Prereq.: FASH 35A or CASC 35
Repeat: max. 9 units
Prepares the student in the presentation of their work in a professional portfolio for the purpose of employment. Selection of illustrations for style and medium, types of portfolios available, and overall professional presentation standards will be covered. CSU

FASH 34. Apparel Manufacturing (3)
Lec-3, field trips                           P/NP available
Repeat: max. 6 units
All phases of the manufacture of wearing apparel and accessories. Technological limitations and possibilities, operation of machines used in production and manufacturing techniques. CSU

FASH 35A. Fashion Illustration I (3)
Lec-2, lab-3                                 P/NP available
Repeat: max. 6 units
Drawing of the fashion figure including working sketches. The clothed figure in motion with emphasis on textile characteristics, color mediums, and construction details. Development of a personal illustration style and a portfolio. CSU

FASH 35B. Fashion Illustration II (3)
Lec-2, lab-3                                 P/NP available
Prereq.: FASH 35A
Repeat: max. 6 units
Students will learn to expand on their artistic renderings, flat sketches, coloration and textile interpretations by using computer programs. The human figure in fashion proportions will be drawn from every angle and will be clothed in a variety of garments. Designs for men, women, and children will be explored and created. CSU

FASH 36. Fashion Design (3)
Lec-3, field trips                           P/NP available
Basic design principles examined as they apply to clothing for women, men, and children. Includes design modifications as required by fabric and figure characteristics. Relates design problems to current aesthetic trends and use of the garment. CSU

FASH 37. Pattern Design II (3)
Lec-2, lab-3, field trips                   P/NP available
Prereq.: FASH 26 OR DEMONSTRATION OF FASH 26 EXIT SKILL
Repeat: max. 6 units
Continuation of techniques for pattern development, with an emphasis on industry production skills. Techniques covered include the development of more complex designs, patterns for stretch fabric, and use of the computer to create original patterns. CSU

FASH 44. Merchandising—Retail Buying (3)
Lec-3, field trips
The merchandising functions of the modern retail store, with emphasis on planning and control, buying and pricing, and receiving and selling merchandise. CSU

FASH 45A. Image Consulting (3)
Lec-3, field trips                           P/NP available
This course prepares students to become image consultants, either working independently or for a retailer. It will incorporate the techniques of color and wardrobe selection, figure analysis, and setting up a business. CSU

FASH 45B. Advanced Image Consulting (3)
Lec-3, field trips                           P/NP available
Prereq.: FASH 45A
Provides advanced knowledge and skills in the preparation of becoming an Image Consultant. Emphasis is placed on techniques of wardrobe planning and consultation, public relations, marketing and business operations for an image consulting business. CSU

FASH 46. Fashion Merchandising (3)
Lec-3, field trips
Basics of how fashion merchandising operates with the retail organization; principles of fashion merchandising are studied, along with career opportunities. CSU
FASH 47. Fashion Coordination (3)
Lec-3, field trips
Analysis of the structure of various fashion offices and the variety of fashion coordination jobs at different levels of the market. Examination of the duties and responsibilities of a coordinator with emphasis on trend research, the production of fashion shows, and projection of a firm's fashion image. CSU

FASH 48. Fashion Show Production (4)
Lec-3, lab-4, field trips
Prereq.: FASH 47
Strongly recommended for all fashion merchandising majors. Preparation and execution of a complete fashion show, from concept to runway, for a specific firm and audience; on and off campus production. CSU

FASH 49. Visual Merchandising (3)
Lec-3, field trips
Visual approach to selling with emphasis on the basic principles of display. Elements of store window and interior display. Practice in working with mannequins and props to develop proper techniques. CSU

FASH 50. Runway: The Business of Modeling (3)
Lec-3, field trips
Fundamentals of and practices in training for a career in modeling and fashion coordination, with emphasis on developing the ability to identify specific skills requisite to the industry. CSU

FASH 51. Creating a Garment Business (3)
Lec-3, field trips
A study of the organization and creation of a garment business. CSU

FASH 53. Fashion Forecasting (3)
Lec-3, field trips
P/NP available
The theories and frameworks underlying forecasting in the textile and apparel industry. The factors involved in planning and presenting the forecast. Emphasis on using print, Internet and broadcast information in competitive analysis. CSU

FASH 54A. Fashion Styling (3)
Lec-3, field trips
P/NP available
This course explores the skills required for "styling" outfits (choosing accessories to project fashion image), whether for photography, video, film and commercials, visual merchandising or fashion shows. Emphasis on identifying the many styling images and methods used in promoting fashion. CSU

FASH 54B. Advanced Fashion Styling (3)
Lec-3, field trips
P/NP available
Prereq.: FASH 54A
This hands-on, field-based course teaches the skills required of various types of professional stylists. Students will be guided through the process of developing a professional styling portfolio which they can present to prospective clients. CSU

FASH 55. Icons of Contemporary Fashion (3)
Lec-3, field trips
An overview of the key movements and innovations in fashion through the exploration of the work of the most influential and original contemporary designers. Emphasis will be on crucial shifts in style within their socio-economic, political and cultural contexts. CSU

FASH 56. Fashion Writing and Publicity (3)
Lec-3, field trips
The field of fashion writing and publicity offers a great diversity of careers in fashion, textiles and home furnishings markets. Students will learn how to write fashion reports, press releases, photo captions, fashion show and web scripts, commercials for radio and television as well as create press kits. CSU

FASH 57. Fabric Glossary (1)
Lec-1, field trip
P/NP available
Merchandising students will learn how to identify fashion fabrics and to determine the suitability of these fabrics to various styles of clothing. CSU

FASH 60. Field Work in Fashion Merchandising (1)
Work-5
P/NP only
Prereq.: Approval of FASH Work Experience Coordinator
Repeat: max. 4 units
On-the-job laboratory training in fashion merchandising with retailers, wholesalers, image and fashion consultants. Placement of students will be determined according to the requirements of the cooperating firms. CSU

FASH 61. Work Experience in Fashion Industry (3)
Work-15
P/NP available
Prereq.: Approval of FASH Work Experience Coordinator
Repeat: max. 6 units
The content of this course involves student work experience in the industry. The course requirements include three coordinating conferences per semester and individual meetings by arrangement. CSU

FASH 62. Work Experience in Image Consulting (3)
Work-15
P/NP available
Prereq.: Approval of FASH Work Experience Coordinator
Repeat: max. 6 units
This course involves student work experience in which the college procures a position for the student. Course requirements include a minimum of one orientation lecture, one job-site visit with the employer, one job-site visit with the student, and a semester end conference between the student and the employer where the students will submit a weekly log of their work experience. Fifteen hours weekly of non-paid off-campus work experience. CSU

FASH 63. Fashion Design and Production Internship (2)
Work-10
The student, upon completion of the required course work in Fashion Design and Production, qualifies for placement as an intern with a local manufacturer or designer. The student will experience actual working conditions and problems from design to finished product. CSU

FASH 64. Fashion Surface Design (3)
Lec-2, lab-3, field trips
Repeat: max. 6 units
Printing designs on fabric via painting, stamping, stenciling, air brushing, photo silkscreening, transferring and marbleizing. Emphasis is on technique, color and design. CSU

FASH 65. Advanced Fashion Surface Design (3)
Lec-2, lab-3, field trips
Advise: FASH 15A
Two dimensional Surface Design created by the manipulation of fabrics and enhanced with sewn-on embellishments. Trapunto, layering/
texturing, quilting, patchwork, pleating, applique, and beading. Fee may be charged. CSU

FASH 66. Lingerie Design and Construction (3)
Lec-2, lab-3, field trips P/NP available
Repeat: max. 6 units
Development of original designs and construction of all types of intimate apparel. Pattern-making and specialized sewing techniques emphasizing the calculations necessary for the successful production of finely calibrated garments. CSU

FASH 67. Computerized Pattern Development: Gerber (3)
Lec-2, lab-3, field trips
Prereq.: FASH 26
Repeat: max 9 units
An overview of the capabilities and functions of computer assisted fashion design software used to digitize existing and new grade sizes as well as mark fashion patterns for production cutting. Emphasis on the global usage and application of this software. CSU

FASH 68. Couture Techniques (1)
Lec-1
Prereq.: FASH 15A or demonstration of FASH 15A exit skills
Repeat: max 2 units
Students will learn how to analyze the design elements, fabrics, embellishments and construction techniques used in couture garments, and how to integrate them into their own designs. The specialized skills needed to generate a pattern from an existing garment while the garment is still intact will also be covered. CSU

FASH 69. Basic Pant Draft (1)
Lec-.5, lab-1.5 P/NP available
Prereq.: FASH 15A or demonstration of FASH 15A exit skills
Students will learn how to properly measure a figure and draft a well fitting pant pattern. CSU

FASH 70. Copying Ready-to-Wear (1)
Lec-1 P/NP available
Prereq.: FASH 15A
Repeat: max. 2 units
The student will learn how to duplicate an existing garment while the garment is still intact. Students will learn the specialized techniques and skills needed to generate a pattern from the garment. CSU

FASH 71. Apparel Art (2)
Lec-2, field trips P/NP available
Repeat: max. 4 units
Class will present garment design possibilities in techniques including: weaving, quilting, fabric painting, applique, beading, felting and reconstructed fabric making. Pattern designing is emphasized. CSU

FASH 72. Drafting a Sloper (Moulage) (1)
Lec-1 P/NP available
Prereq.: FASH 15A
Repeat: max 2 units
Students will learn the specialized skills needed to properly measure the figure and draft a personal sloper/moulage. CSU

FASH 73. Sewing with Knit and Stretch Fabrics (1)
Lec.-.5, lab-1.5, field trips P/NP available
Special sewing techniques for garments made from knitted fabrics, such as t-shirts, activewear and swimwear. Students will construct garments while learning how to work with knitted fabrics, including ribbed finishes, elastic edgings, and special seam types. CSU

Noncredit Courses:
FASH 6000. Pattern Design and Drafting (52 hrs)
Development of skills in designing and drafting patterns. Design includes variations in basic patterns for blouses, skirts, collars, sleeves, dresses, pants, and suits.

FASH 6003. Upholstery (63 hrs)
Introduction to upholstering furniture and to making furniture starting from the frame. Use of tools, cutting and fitting different fabrics, fillings and placement of fabrics.

FASH 6004. Weaving - Contemporary Basketry
Contemporary and traditional basketry. Coiling, twining, plaiting, and knotless netting using natural fibers and innovative modern materials. Formerly CASC 6004.

FASH 6005. Weaving – Beginning (70 hrs)
Advise: FASH 6008 or CASC 6008
Design and weaving of textiles using 4 harness floor looms. Simple weave structures are taught, stressing craftsmanship, sensitivity to materials and an appreciation of the medium.

FASH 6006. Expanded Woven Design (72 hrs)
Prereq.: FASH 6005 or CASC 6005
The design and weaving of textiles using 4 and 8 shaft floor looms. Introduction to 16 shaft dobby loom design and technology. Projects expand basic weave structures with emphasis on best choice of materials, technique and appreciation of the medium. Emphasis on imaginative applications of basic technology to innovative resolutions.

FASH 6007. Art Weaving (70 hrs)
Design and weave textiles using 4 and 8 harness treadle looms and 16 harness computer driven looms. Utilizing computer weaving programs, emphasis will be placed on weave structure theory to enable students to conceptualize and create signature fabrics. Integration of the woven structure with dyeing and surface design processes applied before, during and after weaving. Exercises to enhance confidence in color and design skills.

FASH 6008. Weaving Tapestry (72 hrs)
Integrating traditional Aubusson tapestry techniques with contemporary techniques and materials. All levels: beginning - samplers; intermediate - cartoons; advanced - approved, pre-planned pieces.

FASH 6014. Fashion Sewing and Alteration (108 hrs)
Development of skills in clothing construction. Areas include tailoring, dressmaking, fitting, alterations. Students provide materials and supplies.

FASH 6025. Quiltmaking (54 hrs)
Develop/improve skills in sewing, design, pattern drafting, applique, patchwork and quilting. Beginning students construct a sampler quilt. Intermediate/advanced students work on individually designed projects.

FASH 6027. Surface Design - 3-dimensional (54 hrs)
Applications of design on fabric via painting silk screening, airbrushing, stenciling, blueprinting, marbleizing and sculpting. Pattern drafting for 3 dimensional objects: figures, animals, boxes, masks, headaddresses and footwear. Emphasis on color and design.
FASH 6040. Interior Textiles (36 hrs)
Lab-2, field trips
Woven structures used in interior furnishings. Practice techniques of upholstery, drapery, rugs, bed coverings, wall weavings and table coverings. Relationship to commercial production of these products is emphasized. A notebook with sample woven presentations is recommended.

FASH 6050. Lingerie (72 hrs)
Basic underwear design principles will be examined as they apply to men and women and children. This will include design modifications based on individual creativeness, body shape, figure accents, and selection of fabrics and notions. Course will focus on both consumer and industrial production.

FASH 6051. Millinery (54 hrs)
All aspects of basic hat making, including sewn hats, framed hats and felt hats. Application of trims and embellishments included.

FASH 6052. Apparel Art Lab (35 hrs)

FASH 6055. Upholstery Trade (90 hrs)
Upholstering as a trade. Focusing on the skills necessary for upholstering new and existing residential and commercial upholstered furniture. Upholstering as a professional business - wholesale or retail, including fabric and pattern layout, sewing.

FASH 9612. Draping/Design/Pattern Drafting (54 hrs)
Methods and techniques of clothing construction used to meet students’ individual design needs. Covers basic sewing and pattern drafting through composing test draping designs on manikins. Demonstrations of draping techniques that summarize the basics of garment assembly and finishing.

In foreign language courses, the course numbers and letters follow in sequence. A student who has completed a course with a grade of A, B, C, or P may not re-register for the same course (unless repetition is specifically permitted), nor may he/she register for a course with a lower number or letter unless otherwise indicated.

Chinese, French, German, Japanese, and Spanish offer an advisory placement test to help students determine their level of language ability. Following consultation with the advisor in that language, the student may sign an agreement which will permit the granting of credit for the previous level course of that language, provided the student enrolls in the recommended level and completes the course with a grade of A or B. For further information contact the Foreign Language Department.

Learning Outcomes
Given the structures and vocabulary included in each course, students will be able to:
- Understand spoken and written language;
- Speak with reasonable accuracy and pronunciation;
- Develop their understanding of other cultures and customs;
- Write in the language appropriate to the level studied.

For foreign language studies abroad, contact the International Education Coordinator, 239-3778.

For short term noncredit foreign language classes, contact the Continuing Education Coordinator, 561-1860.

French
Office: Art 202
Phone Number: (415) 239-3223
Web Site: www.ccsf.edu/forlang

French Major (AA)

Program Information. The French program provides instruction in developing a student’s ability to communicate in French, both written and oral, through the intermediate level and to gain a knowledge of francophone cultures throughout the world. The program is designed to meet transfer goals as well as personal development and career growth. Students must complete the curriculum with final grades of C or higher in their major preparation.

Degree Curriculum. The Degree Curriculum in French is a two-year course of study designed to build a strong language foundation as well as expose students to francophone cultural content and some literature. Students who complete the curriculum are better prepared to transfer to the CSU and UC systems as well as other universities with the intent of majoring or minoring in French.

Courses Required for the Major in French
Students must complete a minimum of 15 units chosen from

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 2 or 2A+2B Cont. of Elem. French</td>
<td>5 or 6</td>
</tr>
<tr>
<td>FREN 3A+3B Intermediate French</td>
<td>6</td>
</tr>
<tr>
<td>FREN 4 Cont. of Intermediate French</td>
<td>3</td>
</tr>
<tr>
<td>FREN 5 Adv. French: Conv. on French Literature and Culture</td>
<td>3</td>
</tr>
<tr>
<td>FREN 22 Grammar Review and Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

An additional three (3) units must be completed from the following courses:
<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1 or 1A+1B Elementary French</td>
<td>5 or 6</td>
</tr>
<tr>
<td>FREN 10B Beginning Conv. French</td>
<td>3</td>
</tr>
</tbody>
</table>

Foreign Languages
Office: Art 202
Phone Number: (415) 239-3223
Web Site: www.ccsf.edu/forlang

Announcement of Curricula
(See specific course entries for American Sign Language, Chinese, French, German, Italian, Japanese, Pilipino, Russian and Spanish.)

General Information
City College offers language and culture courses in nine languages: American Sign Language, Chinese (both Cantonese and Mandarin), French, German, Italian, Japanese, Pilipino, Russian and Spanish. Besides being excellent intellectual training and meeting transfer requirements, language courses allow you to add an international dimension to your abilities including international business and international relations, help you communicate with the peoples of the world and understand their cultures. Students often major or minor in languages in conjunction with majors in other areas.

Film
See Cinema
Students of beginning French are directed to consider French courses numbered 1, 1A, or 10A. A placement test in French is available for guidance in selecting the appropriate course. For information, call 239-3223. Total beginners in French should select from FREN 1, 1A, or 10A.

Credit, Degree Applicable Courses:

FREN 1B. Elementary French (3-3)
Lec-3, lab-2
Advis: ENGL 93 or 94; ESL 160 or placement in ENGL 96 or ESL 170 or any City College or University foreign language course
Prereq: For FREN 1B: FREN 1A or demonstration of FREN 1A exit skills
Grammar, composition, and reading. Practice in speaking and understanding French. CSU/UC
FREN 1A+1B = FREN 1

FREN 2. Continuation of Elementary French (5)
Lec-5, lab-2
Prereq: FREN 1 or 1B or demonstration of FREN 1/1B exit skills
Second semester course. Continuation of elementary grammar, composition and reading. Continued practice in speaking and understanding French. CSU/UC

FREN 2A-2B. Continuation of Elementary French (3-3)
Lec-3, lab-2
Prereq: For FREN 2A: FREN 1 or 1B or demonstration of FREN 1/1B exit skills.
Prereq: For FREN 2B: FREN 2A or demonstration of FREN 2A exit skills
Continuation of elementary grammar, composition and reading. Continued practice in speaking and understanding French. CSU/UC
FREN 2A+2B = FREN 2

FREN 3. Intermediate French (5)
Lec-5, lab-1
Prereq: FREN 2 or 2B or demonstration of FREN 2/2B exit skills
Third semester course: Review of grammar and composition; reading of cultural materials. Constant practice in the use and comprehension of the spoken language. Conducted in French. CSU/UC

FREN 3A-3B. Intermediate French (3-3)
Lec-3, lab-1
Prereq: FREN 2 or 2B or demonstration of FREN 2/2B exit skills
Non-sequential
Review of grammar and composition; reading of cultural materials. Constant practice in the use and comprehension of the spoken language. Conducted in French. CSU/UC
FREN 3A+3B = FREN 3

FREN 4. Continuation of Intermediate French (3)
Lec-3, lab-1
Prereq: FREN 2 or 2B or demonstration of FREN 2/2B exit skills
Fourth semester course. Reading of representative literary works; review of grammar and composition. Increased emphasis on speaking. Conducted in French. CSU/UC

FREN 5. Advanced French: Conversation on French Literature and Culture (3)
Lec-3, lab-2, field trips
Prereq: FREN 2/2B or demonstration of FREN 2/2B exit skills
Advis: FREN 3 or 3B
Reading in and discussion of French literature and culture. Exclusively oral training to acquire greater command of the spoken language.

French Certificate
The Certificate of Accomplishment in French provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 units in French. Each course must be completed with a final grade of C or higher or Pass. At least 9 units must be selected from the core list. The remaining 6 units may be selected from the elective units.

Courses Required for the Certificate of Accomplishment in French

Core Courses Units
FREN 1 Elementary French .......... 3
or FREN 1A-1B Elementary French .......... 3-5
FREN 2 Continuation of Elementary French
or FREN 2A-2B Continuation of Elem French .......... 3-5
FREN 3 Intermediate French
or FREN 3A-3B Intermediate French .......... 3-5
FREN 4 Continuation of Elem French .......... 3
FREN 5 Adv French: Conv on French Lit and Cul .......... 3

Elective Courses
FREN 10A Beginning Conversational French .......... 3
FREN 10B Cont of Beg Conversational French .......... 3
FREN 10C Intermediate Conversational French .......... 3
FREN 10D Cont of Inter Conversational French .......... 3
FREN 10E Cont of Inter Conversational French .......... 3
FREN 11A-11B Advanced Conversational French .......... 3-3
FREN 20 Independent Studies .......... 1
FREN 21 French for Business .......... 3
FREN 22 Grammar Review and Composition .......... 3
FREN 23 French Phonetics .......... 2
FREN 41 Culture and Civilization of France .......... 3
FREN 42 Contemporary French Culture and Civ .......... 3

Total Units .......... 15
through building vocabulary, improving pronunciation and expressing ideas in a more natural manner. CSU

**FREN 10A. Beginning Conversational French (3)**  
Lec-3, lab-2  
P/NP available  
Open to all beginning students. Recommended for students enrolled in FREN 1 or 1A. Not open to native speakers of French.  
Beginner's course. Extensive oral training in French. Emphasis on practical vocabulary and idiom rather than formal grammar and literature. CSU

**FREN 10B. Continuation of Beginning Conversational French (3)**  
Lec-3, lab-2  
P/NP available  
Prereq.: FREN 10A or demonstration of FREN 10A exit skills  
Not open to native speakers of French. Recommended for students enrolled in FREN 2 or 2A.  
Second semester course. Continuation of extensive oral training in French. Emphasis on practical vocabulary and idiom rather than formal grammar and literature. CSU

**FREN 10C. Intermediate Conversational French (3)**  
Lec-3, lab-2  
P/NP available  
Prereq.: FREN 10B or demonstration of FREN 10B exit skills  
Not open to native speakers of French. Recommended for students enrolled in FREN 2 or 2A or 2B.  
Continuation of extensive oral training in French. Designed for students who wish to continue acquiring more advanced skills of the spoken language with a minimum of formal grammar. CSU

**FREN 10D. Continuation of Intermediate Conversational French (3)**  
Lec-3, lab-2  
P/NP available  
Prereq.: FREN 10C or demonstration of FREN 10C exit skills  
Not open to native speakers of French. Recommended for students enrolled in FREN 2B or 2A or 2B.  
Continuation of extensive oral training in French for students who wish to continue acquiring more advanced skills of the spoken language with a minimum of formal grammar. CSU

**FREN 10E. Continuation of Intermediate Conversational French (3)**  
Lec-3, lab-2  
P/NP available  
Prereq.: FREN 10D or demonstration of FREN 10D exit skills  
Not open to native speakers of French. Recommended for students enrolled in FREN 3 or 3A or 3B.  
Continuation of extensive oral training in French for students who wish to continue acquiring more advanced skills of the spoken language with a minimum of formal grammar. CSU

**FREN 11A-11B. Advanced Conversational French (3-3)**  
Lec-3, lab-2  
P/NP available  
Prereq.: FREN 10E or 3 or 3A+3B or demonstration of FREN 10E, 3, or 3A+3B exit skills  
Non-sequential  
Extensive oral training in French for students who wish to continue acquiring more advanced skills of the spoken language with a minimum of formal grammar. CSU/UC

**FREN 21. French for Business (3)**  
Lec-3  
P/NP available  
Prereq.: FREN 2 or 2B or demonstration of FREN 2/2B exit skills  
May not be offered every semester.  
Intermediate course in basics of financial and business vocabulary, business correspondence skills and French business practices. CSU

**FREN 22. Grammar Review and Composition (3)**  
Lec-3, lab-2  
P/NP available  
Prereq.: FREN 4 or demonstration of FREN 4 exit skills  
May not be offered every semester.  
Advanced review of grammar and composition with attention to style, vocabulary development, and more advanced grammatical structure, taught entirely in French. CSU/UC

**FREN 23. French Phonetics (2)**  
Lec-2, lab-1  
P/NP available  
Prereq.: FREN 10C or 2A or demonstration of FREN 10C or 2A exit skills  
May not be offered every semester.  
Introduction to the French phonological system with attention given to spoken French and its differences with written French. Emphasis on skills of pronunciation, oral expression and comprehension rather than on conversation or discussion. CSU

**FREN 41. Culture and Civilization of France (3)**  
Lec-3  
P/NP available  
Advise: ENGL 96 or placement in ENGL 1A  
No knowledge of French required.  
May not be offered every semester.  
The history, geography, social institutions, literature, art, architecture, and music of France from their beginnings to the First World War. CSU/UC

**FREN 42. Contemporary French Culture and Civilization (3)**  
Lec-3  
P/NP available  
Advise: ENGL 96 or placement in ENGL 1A  
No knowledge of French required.  
May not be offered every semester.  
Aspects of French culture and civilization from the entre-deux-guerres period to the present. Insights into the historical and traditional forces which have contributed to the current and emerging conditions of France. CSU/UC

---

### Gay, Lesbian and Bisexual Studies

See Lesbian, Gay, Bisexual, and Transgender Studies

### Geography

See Earth Sciences listings

### Geology

See Earth Sciences listings.
German Certificate

The Certificate of Accomplishment in German provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 units in German. Each course must be completed with a final grade of C or higher or Pass. At least 9 units must be selected from the core list. The remaining 6 units may be selected from the elective units.

Courses Required for the Certificate of Accomplishment in German

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 1 Elementary German or GERM 1A-1B Elementary German</td>
<td>3-5</td>
</tr>
<tr>
<td>GERM 2 Continuation of Elementary German or GERM 2A-2B Continuation of Elementary German</td>
<td>3-5</td>
</tr>
<tr>
<td>GERM 3 Intermediate German or GERM 3A-3B Intermediate German</td>
<td>3-5</td>
</tr>
<tr>
<td>GERM 4 Continuation of Intermediate German or GERM 4A-4B Continuation of Intermediate German</td>
<td>3-5</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 10A, 10B Beg Prac Spoken German</td>
<td>3-3</td>
</tr>
<tr>
<td>GERM 10C Intermediate Conversational German</td>
<td>3</td>
</tr>
<tr>
<td>GERM 10D Continuation of Intermediate Conversational German</td>
<td>3</td>
</tr>
<tr>
<td>GERM 11A, 11B Advanced Conversational German</td>
<td>3-3</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Announcement of Courses

Credit, Degree Applicable Courses:

Students of beginning German are directed to consider German courses numbered 1, 1A or 10A.

A placement test in German is available for guidance in selecting the appropriate course. For information, call 239-3223.

GERM 1. Elementary German (5)
Lec-5, lab-2 P/NP available
Adviser: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170 or any City College or University Foreign Language course
Beginner's course: Grammar, composition, and reading; practice in speaking and understanding German. CSU/UC

GERM 1A-1B. Elementary German (3-3)
Lec-3, lab-2 P/NP available
Prerequisite: GERM 1B; GERM 1A or demonstration of GERM 1A exit skills.
Adviser: ENGL 93 or 94; or ESL 160 or placement in ENGL 96 or ESL 170 or any City College or University Foreign Language course
Grammar, composition and reading; practice in speaking and understanding simple German. CSU/UC
GERM 1A + GERM 1B = GERM 1

GERM 2. Continuation of Elementary German (5)
Lec-5, lab-2 P/NP available
Prerequisite: GERM 1 or 1B or demonstration of GERM 1/1B exit skills.
Second semester course. Continuation of elementary grammar, composition and reading; practice in speaking and understanding German. CSU/UC

GERM 2A-2B. Continuation of Elementary German (3-3)
Lec-3, lab-2 P/NP available
Prerequisite: For GERM 2A: GERM 1 or 1B or demonstration of GERM 1/1B exit skills.
Prerequisite: For GERM 2B: GERM 2A or demonstration of GERM 2A exit skills.
Continuation of elementary grammar, composition and reading; practice in speaking and understanding German. CSU/UC
GERM 2A + GERM 2B = GERM 2

GERM 3. Intermediate German (5)
Lec-5, lab-1 P/NP available
Prerequisite: GERM 2 or 2B or demonstration of GERM 2/2B exit skills.
Third semester course. Introduction to the reading of German prose. Grammar review and composition; constant practice in the use and comprehension of the spoken language. CSU/UC

GERM 3A-3B. Intermediate German (3-3)
Lec-3, lab-1 P/NP available
Prerequisite: GERM 2 or 2B or demonstration of GERM 2/2B exit skills.
GERM 3A is not a prerequisite for GERM 3B. These courses may be taken non-sequentially.
Introduction to the reading of German prose. Grammar review and composition; constant practice in the use and comprehension of the spoken language. CSU/UC
GERM 3A + GERM 3B = GERM 3

GERM 4. Continuation of Intermediate German (5)
Lec-5, lab-1 P/NP available
Prerequisite: GERM 3 or GERM 3A+3B or demonstration of GERM 3/3A+3B exit skills.
Extensive and intensive reading of modern German prose. CSU/UC

GERM 4A-4B. Continuation of Intermediate German (3-3)
Lec-3, lab-1 P/NP available
Prerequisite: GERM 3 or 3A+3B or demonstration of GERM 3/3A+3B exit skills.
GERM 4A is not a prerequisite for German 4B. These courses may be taken non-sequentially.
Extensive and intensive reading of modern German prose. CSU/UC
GERM 4A + GERM 4B = GERM 4

GERM 10A-10B. Beginning Practical Spoken German (3-3)
Lec-3, lab-2 P/NP available
Prerequisite: For GERM 10B: GERM 10A or demonstration of GERM 10A exit skills.
Not open to native speakers of German
Extensive oral training in German; emphasis on practical vocabulary and conversational idiom. CSU
GERM 10C. Intermediate Conversational German (3)
Lec-3, lab-2 P/NP available
Prereq.: GERM 10B or demonstration of GERM 10B exit skills.
Not open to native speakers of German
Recommended for students enrolled in GERM 2 or 2A
Third semester course. Continuation of extensive oral training in German. Emphasis on conversational idiom. Introduction to German customs, culture, civilization, and current affairs. Grammar analysis is kept to a minimum. CSU

GERM 10D. Continuation of Intermediate Conversational German (3)
Lec-3, lab-2 P/NP available
Prereq.: GERM 10C or demonstration of GERM 10C exit skills.
Not open to native speakers of German
Recommended for students enrolled in GERM 2B or 3
Fourth semester course. Continuation of extensive oral training in German with emphasis on German customs, culture, civilization, and current affairs. Grammar analysis is kept to a minimum. CSU

GERM 11A-11B. Advanced Conversational German (3-3)
Lec-3, lab-2 P/NP available
Prereq.: GERM 10D or 3 or 3A+3B or demonstration of GERM 10D, 3, or 3A+3B exit skills
GERM 11A is not a prerequisite for GERM 11B. These courses may be taken non-sequentially.
Extensive oral training in German. Designed for students who wish to continue acquiring more advanced skills of the spoken language. CSU/UC

Graphic Communications
Office: Visual Arts 141
Phone Number: (415) 239-3481
Web Site: www.ccsf.edu/graphics

Announcement of Curricula

General Information
Graphic Communications Department provides educational programs for a broad range of visual media. Our curriculum includes courses in graphic design and production skills for print and interactive media, digital imaging, digital illustration, typography, book arts, 2D and 3D animation, interactive game design and production letterpress, and offset and digital print production. Our degree and certificate programs prepare students for entry-level employment or transfer to a four-year institution for further study. These programs are described on the following pages. Enrollment in the various program areas is open to all interested students.

Graphic Design Major (AA)
We are living in an information society—surrounded by an ever-increasing barrage of words, images and sounds. The role of the graphic designer is to shape this information in a meaningful way, visualizing and communicating ideas in the most engaging manner possible.

The Graphic Design major was created to provide students with a strong foundation in the fundamental aspects of the designer’s art. Students develop creativity and ideation skills, learn the theories of communication design and apply this to a wide range of design situations. Communication in all forms—visual, verbal and written—is stressed. The program is hands-on, integrating conceptual design studies with traditional and digital tools and production methods. Advanced students have the opportunity to further develop their skills in Emerge Studio, a design practicum that provides quality communications pieces to the campus community. An elective work experience course allows students to broaden their design vocabulary through supervised work in local design firms. Our City College of San Francisco American Institute of Graphic Artists (AIGA) student chapter provides additional educational, networking and outreach opportunities within the professional design community.

Learning Outcomes
Students successfully completing the program will be able to:
- Employ a structured iterative creative process (research, ideation, development, analysis and prototyping) to solve a variety of design problems;
- Combine appropriate aesthetic form and content to create evocative and engaging work;
- Create appropriate typographic solutions for a variety of design situations;
- Demonstrate proficiency with computers, software and production processes;
- Select appropriate tools, materials and processes for a range of media products;
- Work collaboratively within a creative team;
- Critically evaluate and discuss the merits of various creative ideas;
- Develop and maintain a professional portfolio of work.

This course of study is designed so that students may satisfy the requirements for graduation from the College. Students are encouraged to meet with a program advisor to discuss program planning and articulation agreements for continued study.

Courses Required for the Major in Graphic Design

<table>
<thead>
<tr>
<th>Course Required for the Major in Graphic Design</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>DSGN 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 23 Orientation to Design and Grph Comm</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 27 Survey of Print Production</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 35 Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 53A Basic Typography</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 98A Beginning Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 101A Beginning Adobe InDesign</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 36 Intermediate Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 53B Typographic Design</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 100A Beginning Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>Graphic Communications electives*</td>
<td>2</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 37 Advanced Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 68 Design Studio Practicum</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 78 Digital Scanning and Correction</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 149 Portfolio Development</td>
<td>2</td>
</tr>
</tbody>
</table>
Graphic Communications electives* ........................................ 2
Additional graduation requirements

Total Units ......................................................... 46

*Graphic Communications Electives (Graphic Design): GRPH 68, 98B, 100B, 110A, 110B, 140, 147, 148, 154, 155, 197

Certificate Curricula
The Certificate Curricula consists of four programs of study: Digital Printing and Publishing, Production Art, Press and Finishing, and a Noncredit Graphics Support Specialist Certificate. Each is designed to prepare students to enter the work force. For further information contact the Graphic Communications Department office, Visual Arts Room 141.

Requirements for the Certificate of Accomplishment or Achievement. Students may obtain a Certificate of Accomplishment or Achievement by completing each course in their program of study with a final grade of C or higher.

Collaborative Design Certificate*

The 17-unit certificate program in Collaborative Design provides students with a strong foundation in multidisciplinary approaches to design and collaboration.

* See Interdisciplinary Studies section of the Catalog.

Digital Illustration Certificate*

*The program is pending state approval.
Please refer to the online version of the Catalog.

Digital Printing and Document Management Certificate
The Digital Printing and Document Management certificate provides an understanding of the commercial printing industry with emphasis on contemporary methods in reprographics, production workflow and customer service. The course of study prepares students for entry-level positions in commercial and in-plant printing establishments, digital media processing and facilities management companies. Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Students successfully completing the program will be able to:

• Analyze and critique print projects, providing customers with constructive suggestions for improvement and/or cost options;

• Integrate knowledge of industry-standard concepts processes and digital tools used in print manufacturing;

• Familiarity with industry standard software such as Adobe Acrobat, InDesign, Photoshop and Microsoft Word;

• Demonstrate the ability to produce professional quality documents including books and multipage reports using high-volume digital printing equipment and prescribed production steps;

• Evaluate and apply input and workflow options to ensure a quality product;

• Work collaboratively; demonstrating flexibility and an ability to produce under pressure in a fast paced environment.

Courses Required for the Certificate of Accomplishment in Digital Printing and Document Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 27 Survey of Print Production</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 40 Digital Printing and Publishing</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>CNTT 100 Intro to Computers Using PCs</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 60 Product Finishing</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 147 Adobe Acrobat</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</td>
</tr>
</tbody>
</table>

Suggested electives: GRPH 72A, GRPH 98A, GRPH 101A

Production Art Certificate

A production artist is an integral member of a design team. They are proficient with industry standard software for print and web and have a working understanding of design process, layout, type and color. The Production Art Certificate provides students with fundamental design skills and advanced digital skills. Advanced students have the opportunity to further develop their skills in Emerge Studios, a design practicum that provides quality communications pieces to the campus community. An elective work experience course allows students to broaden their design vocabulary through supervised work in local design firms. Our City College of San Francisco American Institute of Graphic Arts (AIGA) student chapter provides additional educational, networking and outreach opportunities within the professional design community.

Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Students successfully completing the program will be able to:

• Demonstrate proficiency with computers, software and production processes

• Create, edit and troubleshoot files using industry standard software such as the Adobe Creative Suite

• Create documents for various destinations, applying appropriate design and typographic principles;

• Select appropriate tools, materials and processes for a range of media projects;

• Work collaboratively within a creative team;

• Develop and maintain a professional portfolio of work.

Courses Required for Certificate of Achievement in Production Art

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>DSGN 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 23 Orient to Design &amp; Graph Comm</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 27 Survey of Print Production</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 35 Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 53A Basic Typography</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 98A Beginning Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 101A Beginning Adobe InDesign</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 53B Typographic Design</td>
<td>3</td>
</tr>
</tbody>
</table>
GRPH 78 Digital Scanning and Color Correction 2
GRPH 101B Advanced Adobe InDesign 3
GRPH 100A Beginning Adobe Illustrator 3
GRPH 140 Design For New Media 2

Fourth Semester
GRPH 68 Design Studio Practicum 3
GRPH 98B Advanced Adobe Photoshop 3
GRPH 100B Advanced Adobe Illustrator 3
GRPH 149 Portfolio Development 2
Total Units 51

Graphics Support Specialist
Noncredit Certificate

The Graphics Support Specialist certificate program is a five-course learning community that provides basic graphic design and digital production skills to students seeking administrative and/or clerical employment. The curriculum consists of five courses covering Macintosh computer hardware and operating systems, graphic design and type fundamentals and an introductory overview to page layout, illustration and photo-editing software for use in print and web communications.

Each course must be completed with a grade of "C" or higher.

Learning Outcomes

Upon completion of the Graphics Support Specialist Certificate, students will be able to:

- Demonstrate proficiency with Macintosh hardware, operating systems and essential utilities;
- Demonstrate proficiency with industry-standard graphic arts software programs to produce basic documents for print and web communications.
- Create digital documents with an understanding of basic design and typographic principles.

Core Course Hours
GRPH 0921 Design and Type Fundamentals 90
GRPH 0925 Intro to Mac Graphics 90
GRPH 1000 Intro to Adobe Illustrator 45
GRPH 1008 Intro to Adobe Photoshop 45
GRPH 1009 Intro to InDesign 45
Total Hours 315

*Requires that courses be taken concurrently.

Multimedia Studies

Office: VA 143A
Phone Number: (415) 452-5107
Web Site: www.ccsf.edu/graphics

The Multimedia Studies Program prepares students for entry-level employment in the multimedia industry. Created as a cooperative effort by many disciplines, the program offers instruction in the design, development, tools, techniques, and production of computer-based interactive multimedia. Teamwork is emphasized, reflecting the interdisciplinary work environment of the multimedia industry.

Certificate of Accomplishment or Achievement. Students may obtain a Certificate in Multimedia Studies by completing the courses in one of the areas listed below. Each course must be completed with a final grade of "C" or higher or pass

Animation Certificate

The Multimedia Studies Animation certificate combines the study of animation, art, graphics, theater and problem-solving with the tools and techniques of communication for interactive digital media. This course of study prepares students for entry-level positions in multimedia animation.

Each course must be completed with a grade of "C" or higher.

Learning Outcomes

Students successfully completing the program will be able to:

- Integrate knowledge of concepts used in the animation field
- Demonstrate proficiency with software such as Flash, 3D Studio Max, Photoshop, Illustrator and Dreamweaver
- Design and create professional animation projects in teams and alone following industry-level specifications
- Analyze and critique projects, providing constructive feedback for improvement
- Use critical thinking skills to resolve design and technical problems as they arise
- Communicate and discuss complex ideas clearly
- Solve complex problems collaboratively and alone
- Evaluate success of self and others in team environment and recommend areas for improvement

Courses Required for Certificate of Achievement in Multimedia Studies: Animation

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 125 Multimedia Content and Form or DSGN 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ART 130A Basic Drawing</td>
<td>3</td>
</tr>
<tr>
<td>Elective (see below)</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMSP 145 Storytelling/Storyboarding for New Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>ART 130B Intermediate Drawing</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 100A Beginning Adobe Illustrator</td>
<td>3</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMSP 147 3D Imaging with 3D Studio Max</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 100B Advanced Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 98A Beginning Adobe Photoshop or PHOT 60A Beginning Photoshop</td>
<td>2–3</td>
</tr>
<tr>
<td>MMSP 146 2D Animation with Flash</td>
<td>3</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMSP 150 Advanced Multimedia Production or MMSP 160 Multimedia Internship/Work Exp or BCST 165A Industry Internship or MMSP 151 Independent Multimedia Projects</td>
<td>2–3</td>
</tr>
<tr>
<td>MMSP 165 Multimedia Portfolio Development</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>39–41</td>
</tr>
</tbody>
</table>

Recommended Electives: ARCH 21; BCST 124, 125, 140, 143, 146; CS 183B, 183C; DSGN 110; CINE 24, 54, 60, 136; GAME 100, 130; GRPH 98B; 110A; MMSP 130, 131, 135A, 149; PHOT 60B

Flash Design and Development Certificate

The program for the Certificate of Achievement in Flash Design and Development provides instruction in the fundamental concepts and
technical skills needed to design and develop animations, banners, games and web sites with Adobe Flash. Students who complete this certificate will be ready for entry-level or freelance work as a Flash designer and developer.

Learning Outcomes

Students successfully completing the program will be able to:

- Integrate knowledge of industry-standard Flash tools
- Design and create professional Flash projects following industry-level specifications
- Analyze and critique projects, providing constructive critiques for improvement
- Use critical thinking skills to resolve problems as they arise
- Communicate and discuss complex ideas clearly
- Solve complex problems
- Evaluate success of self and others and recommend areas for improvement

Courses Required for the Certificate of Achievement in Flash Design and Development

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 125 Multimedia Content and Form</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>or CS 183A Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 146 2D Animation with Flash</td>
<td>3</td>
</tr>
<tr>
<td>Electives (See below)</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Recommended Electives: MMSP 148, 149; CS 183B, 183C

---

Interactive Game Design and Production Certificate

The Interactive Game Design and Production certificate combines the study of game art design with game production using the tools and techniques for interactive game production. This course of study prepares students for entry-level positions in the Interactive Game Design and production industry.

Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Upon completion of this program, students will be able to:

- Integrate knowledge of industry-standard concepts used in the Game Design and Production field
- Demonstrate proficiency with software such as Flash, 3D Studio Max, Photoshop and interactive-game production engines
- Design and create professional interactive games in teams and following industry-level specifications
- Analyze and critique projects, providing constructive feedback for improvement
- Use critical thinking skills to resolve design and technical problems as they arise
- Communicate and discuss complex ideas clearly
- Solve complex problems collaboratively and alone
- Evaluate success of self and others in team environment and recommend areas for improvement

---

Courses Required for Certificate of Achievement in Interactive Game Design and Production

<table>
<thead>
<tr>
<th>First Semester Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 100 Exploring Game Words</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>or BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>ART 130A Basic Drawing</td>
<td></td>
</tr>
<tr>
<td>ART 125A Basic Design</td>
<td></td>
</tr>
<tr>
<td>or DSGN 101 Design Fundamentals</td>
<td></td>
</tr>
<tr>
<td>or GRPH 21 Visual Literacy</td>
<td></td>
</tr>
<tr>
<td>or MMSP 125 Content and Form</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 98A Beginning Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 100A Beginning Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>or CS 183A Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 145 Storytelling and Storyboarding</td>
<td>3</td>
</tr>
<tr>
<td>or DSGN 110 Rapid Visualization</td>
<td>3</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMSP 146 2D Animation with Flash</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 147 3D Imaging with 3D Studio Max</td>
<td>3</td>
</tr>
<tr>
<td>GAME 130 Game Production Workflow</td>
<td>3</td>
</tr>
<tr>
<td>Elective (see below)</td>
<td>2–3</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 140 Team Production of Games</td>
<td>3</td>
</tr>
<tr>
<td>GAME 150 Career Planning and Portfolio</td>
<td>3</td>
</tr>
<tr>
<td>CS 183B Multimedia Game Programming</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>44–45</td>
</tr>
</tbody>
</table>

Recommended Electives: ART 130B; BCST 120, 146; CINE 136; CS 183C; GRPH 98B, 100B, 110A; MMSP 148, 149

---

Rich Media Production Certificate

The Multimedia Studies Rich Media Production certificate combines instruction and practice with the concepts, techniques and technology of audio, film and video production for interactive digital media. This course of study prepares students for entry-level positions in multimedia rich media production.

Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Students successfully completing the program will be able to:

- Integrate knowledge of industry-standard skills for delivery of audio and video content on the Internet
- Demonstrate proficiency with technology such as Final Cut Pro, Pro Tools, video and audio compression software, Flash and Dreamweaver
- Organize and complete professional digital video- and audio-editing projects in teams and alone following industry-level specifications
- Analyze and critique projects, providing constructive critiques for improvement
- Use critical thinking skills to resolve problems as they arise
- Communicate and discuss complex ideas clearly
- Solve complex problems collaboratively and alone
- Evaluate success of self and others in team environment and recommend areas for improvement
Courses Required for the Certificate of Achievement in Multimedia Studies: Rich Media Production

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 110 Orientation to Multimedia</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 125 Multimedia Content and Form</td>
<td>3</td>
</tr>
<tr>
<td>or DSGN 101 Design Fundamentals</td>
<td></td>
</tr>
<tr>
<td>BCST 140 Studio Video Production</td>
<td></td>
</tr>
<tr>
<td>or CINE 24 Basic Film Production</td>
<td></td>
</tr>
<tr>
<td>or BCST 145 Field Video Production</td>
<td>3–4</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 120 Audio Production</td>
<td></td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td></td>
</tr>
<tr>
<td>or CS 183A Computer Multimedia Tools</td>
<td></td>
</tr>
<tr>
<td>CINE 25 Beginning Film Editing</td>
<td></td>
</tr>
<tr>
<td>or Electives (See below)</td>
<td>3</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 124 Digital Audio Production</td>
<td>2–3</td>
</tr>
<tr>
<td>or MUS 30 Electronic Music Lab</td>
<td></td>
</tr>
<tr>
<td>BCST 143 Digital Video Editing</td>
<td></td>
</tr>
<tr>
<td>or BCST 144 Digital Video Editing-Final Cut Pro</td>
<td></td>
</tr>
<tr>
<td>or CINE 56 Introduction to Digital Film Editing</td>
<td>3</td>
</tr>
<tr>
<td>Electives (See below)</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 146 Digital Video Effects</td>
<td>3</td>
</tr>
<tr>
<td>or CINE 136 Special Effects</td>
<td></td>
</tr>
<tr>
<td>BCST 135 Audio for the Web</td>
<td>1</td>
</tr>
<tr>
<td>MMSP 150 Advanced Multimedia Production</td>
<td></td>
</tr>
<tr>
<td>or MMSP 160 Multimedia Internship/Work Experience</td>
<td></td>
</tr>
<tr>
<td>or BCST 165A Industry Internship</td>
<td></td>
</tr>
<tr>
<td>or MMSP 151 Independent Multimedia Projects</td>
<td>2–3</td>
</tr>
<tr>
<td>MMSP 165 Multimedia Portfolio Development</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>39–42</td>
</tr>
</tbody>
</table>

Recommended Electives: BCST 101, 103, 110, 119, 125, 126, 127, 131, 133, 145, 148, 149; BSEN 76; CNIT 131; CINE 21, 30, 54, 60, 76, 126; GRPH 35, 98A; MMSP 132, 133, 135A, 145, 146, 147, 148, 149; JOUR 35; MUS 29, 31; PHOT 57; TH A 166

Performance Arts Certificate

The Multimedia Studies Performance Arts certificate combines the creative arts of music and theater with the digital tools for production in live performance. Students will be well-versed in the creation of digital sound, music, and computerized technologies for live theatrical performance.

Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Students successfully completing the program will be able to:

- Communicate and discuss complex ideas clearly
- Solve complex problems collaboratively and alone
- Evaluate success of self and others in team environment and recommend areas for improvement

Courses Required for the Certificate of Achievement Multimedia Studies: Performance Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 110 Orientation to Multimedia</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 125 Multimedia Content and Form</td>
<td>3</td>
</tr>
<tr>
<td>or DSGN 101 Design Fundamentals</td>
<td></td>
</tr>
<tr>
<td>MUS 28 Contemporary Music</td>
<td></td>
</tr>
<tr>
<td>or TH A 1 Intro to Theatre</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td></td>
</tr>
<tr>
<td>or CS 183A Computer Multimedia Tools</td>
<td></td>
</tr>
<tr>
<td>MUS 30 Electronic Music Lab</td>
<td>2</td>
</tr>
<tr>
<td>Electives (See below)</td>
<td>3</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>MUS 31 Digital Music Studio</td>
<td>3</td>
</tr>
<tr>
<td>TH A 145 Performance Art: New Media Workshop</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 145 Storytelling/Storyboarding for New Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 146 2D Animation with Flash</td>
<td>3</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 150 Advanced Multimedia Production</td>
<td></td>
</tr>
<tr>
<td>or MMSP 160 Multimedia Internship/Work Experience</td>
<td></td>
</tr>
<tr>
<td>or BCST 165A Industry Internship</td>
<td></td>
</tr>
<tr>
<td>or MMSP 151 Independent Multimedia Projects</td>
<td>2–3</td>
</tr>
<tr>
<td>MMSP 165 Multimedia Portfolio Development</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>38–39</td>
</tr>
</tbody>
</table>

Recommended Electives: BCST 140; CNIT 131; CINE 24, 136; GAME 100, 130; GRPH 98A; MMSP 131, 132, 133, 135A; 142, 147; MUS 29, 31, 44; PHOT 57, 60A; TH A 116, 129, 143, 200

Programming Certificate

The Multimedia Studies Programming certificate includes instruction and practice in specific programming languages and authoring tools. This course of study prepares students for entry-level positions in computer programming in the multimedia field.

Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Students successfully completing the program will be able to:

- Integrate knowledge of industry-standard multimedia programming tools
- Design, build and publish interactive web pages and multimedia applications
- Design and program professional projects, including abstract data types and numerical and non-numerical applications
- Analyze and critique programming in web-based pages and applications, providing constructive critiques for improvement
- Use critical thinking skills to distinguish and choose appropriate programming language algorithms and data structures
- Demonstrate professional style and documentation in programming
• Apply complex programming techniques to the creation of web-based pages and applications

Courses Required for the Certificate of Achievement in Multimedia Studies: Programming

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 110 Orientation to Multimedia</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 132 Intermediate HTML and XHTML</td>
<td>3</td>
</tr>
<tr>
<td>CS 160A Introduction to Unix/Linux</td>
<td>2</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>or CS 183A Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>CS 111A Intro to Programming: Java</td>
<td>3</td>
</tr>
<tr>
<td>or CS 110A Intro to Programming: C++</td>
<td>3</td>
</tr>
<tr>
<td>CS 113A Intro to Perl Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CS 131A Python Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CS 132A Ruby Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CS 130A PHP Programming</td>
<td>3</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>CS 111B Programming Fundamentals: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 113B Object Oriented Perl Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CS 232 Ruby on Rails Development</td>
<td>3</td>
</tr>
<tr>
<td>or CS 130B Advanced PHP Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 183B Flash Game Programming I</td>
<td>3</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>CNIT 133 Interactive Web Pages</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 150 Advanced Multimedia Production</td>
<td>2−3</td>
</tr>
<tr>
<td>or MMSP 160 Multimedia Internship/Work Experience</td>
<td></td>
</tr>
<tr>
<td>or MMSP 151 Multimedia Independent Projects</td>
<td></td>
</tr>
<tr>
<td>MMSP 165 Multimedia Portfolio Development</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>38−39</td>
</tr>
</tbody>
</table>

Recommended Electives: BCST 140; CS 111C, 130A, 134, 150A, 181, 182, 183C, 212; CINE 24; GAME 100, 130; GRPH 35; MMSP 125, 131, 135A, 135B, 149

Web Design and Graphics Certificate

The Multimedia Studies Web Design and Graphics certificate combines the study of design process and problem solving with the tools and techniques of visual communication for interactive digital media. This course of study prepares students for entry-level positions in multimedia design and production.

Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Students successfully completing the program will be able to:

• Integrate knowledge of industry-standard multimedia concepts used in web design and production
• Demonstrate proficiency with programs such Photoshop, Dreamweaver, Flash and HTML
• Design and create professional web projects in teams and alone following industry-level specifications directions
• Analyze and critique projects, providing constructive critiques for improvement
• Use critical thinking skills to resolve design and technical problems as they arise

• Communicate and discuss complex ideas clearly
• Solve complex problems collaboratively and alone
• Evaluate success of self and others in team environment and recommend areas for improvement

Courses Required for the Certificate of Achievement in Multimedia Studies: Web Design and Graphics

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 110 Orientation to Multimedia</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 125 Multimedia Content and Form</td>
<td>3</td>
</tr>
<tr>
<td>or DSGN 101 Design Fundamentals</td>
<td></td>
</tr>
<tr>
<td>Electives (see below)</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 35 Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 98A Beginning Adobe Photoshop</td>
<td>2−3</td>
</tr>
<tr>
<td>or PHOT 60A Beginning Photoshop</td>
<td></td>
</tr>
<tr>
<td>GRPH 100A Beginning Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 140 Graphic Design for Web</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 98B Advanced Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>or PHOT 60B Intermediate Photoshop</td>
<td></td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td></td>
</tr>
<tr>
<td>or CS 183A Multimedia Tools</td>
<td></td>
</tr>
<tr>
<td>MMSP 135A Web Design with Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 150 Advanced Multimedia Production</td>
<td>2−3</td>
</tr>
<tr>
<td>or MMSP 160 Multimedia Internship/Work Experience</td>
<td></td>
</tr>
<tr>
<td>or BCST 165A Industry Internship</td>
<td></td>
</tr>
<tr>
<td>or MMSP 151 Independent Multimedia Projects</td>
<td></td>
</tr>
<tr>
<td>MMSP 165 Multimedia Portfolio Development</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>38−40</td>
</tr>
</tbody>
</table>

Recommended electives: ARCH 21; ART 130; BCST 140; CNIT 131, 132, 133; CS 183B, 183C; CINE 24; GAME 100, 130; GRPH 53A, 99A; 147; MMSP 131, 135B, 146, 147, 149; PHOT 51, 53, 55, 85A

Web Production (Fast Track) Certificate

The Multimedia Studies Web Production certificate is a fast track program that combines the production of web site graphics and web site programming. Upon completion of this program, students will be prepared for entry-level positions in web site production. Each course must be completed with a grade of “C” or higher.

Learning Outcomes

Students successfully completing the program will be able to:

• Integrate knowledge of industry-standard multimedia concepts used in web design and production
• Demonstrate proficiency with programs such Photoshop, Dreamweaver, Flash and HTML
• Design and create professional web projects following industry-level specifications
• Analyze and critique projects, providing constructive critiques for improvement
• Evaluate success of self and others and recommend areas for improvement
• Use critical thinking skills to resolve technical problems as they arise
• Communicate and discuss complex ideas clearly

Courses Required for the Certificate of Achievement in Web Programming (Fast Track)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 125 Multimedia Content and Form</td>
<td>3</td>
</tr>
<tr>
<td>or DSGN 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>or CS 183A Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 131 Internet Basics and Beginning HTML</td>
<td>3</td>
</tr>
<tr>
<td>or MMSP 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 98A Beginning Adobe Photoshop</td>
<td>2–3</td>
</tr>
<tr>
<td>or PHOT 60A Beginning Photoshop</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 135A Web Design with Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 132 Intermediate HTML and XHTML</td>
<td>3</td>
</tr>
<tr>
<td>Electives (See below)</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>23–24</td>
</tr>
</tbody>
</table>

*Equivalency for both first semester courses is available, by exam for GRPH 25 and by exam and portfolio review for MMSP 125.

Recommended electives: BCST 140; CNIT 133; CS 183B, 183C; CINE 24; GAME 100, 130; GRPH 53A, 99A, 140, 147; MMSP 131, 135B, 146, 147, 149

Web Programming (Fast Track) Certificate

The Multimedia Studies Web Programming certificate is a fast track program that combines web site scripting and programming languages with design/animation tools that allow interactivity. Upon completion of this program, students will be prepared for entry-level positions in web site programming.

Each course must be completed with a grade of "C" or higher.

Learning Outcomes

Students successfully completing the program will be able to:

• Integrate knowledge of industry-standard multimedia programming tools
• Design, build and publish interactive web pages and multimedia applications following industry-level specifications
• Design and program professional projects, including abstract data types and numerical and non-numerical applications
• Analyze and critique programming in web-based pages and applications, providing constructive critiques for improvement

Courses Required for the Certificate of Achievement in Web Programming (Fast Track)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 131 Internet Basics and Beginning HTML</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>or CS 183A Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 132 Intermediate HTML and XHTML</td>
<td>3</td>
</tr>
<tr>
<td>CS 110A Intro to Programming: C++</td>
<td>3</td>
</tr>
<tr>
<td>or CS 111A Intro to Programming: Java</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>CS 183B Flash Game Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 133 Interactive Web Pages</td>
<td>3</td>
</tr>
<tr>
<td>CS 110B Programming Fundamentals: C++</td>
<td>3</td>
</tr>
<tr>
<td>or CS 111B Programming Fundamentals: Java</td>
<td>24</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>

*Equivalency is available by exam for GRPH 25.

Web Design with Dreamweaver Certificate

The program for the Certificate of Achievement in Web Design with Dreamweaver provides instruction in the fundamental concepts and technical skills needed to design and develop web sites with Adobe Dreamweaver. Students who complete this certificate will be skilled in creating web sites with Adobe Dreamweaver.

Learning Outcomes

Students successfully completing the program will be able to:

• Integrate knowledge of industry-standard web production tools, including Dreamweaver, HTML and CSS
• Analyze and critique projects, providing constructive critiques for improvement
• Use critical thinking skills to resolve problems as they arise
• Communicate and discuss complex ideas clearly
• Evaluate success of self and others and recommend areas for improvement

Courses Required for the Certificate of Achievement in Web Design with Dreamweaver

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 135A Web Design with Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 135B Adv. Web Design w/Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>12</td>
</tr>
</tbody>
</table>

Recommended Electives: MMSP 125, 131; CNIT 132 and CNIT 133

Announcement of Courses

Graphic Communications

Credit, Degree Applicable Courses:

GRPH 21. Visual Literacy (3)
Lec-3, lab-3, field trips
A visual fundamentals course for design and graphic communications students. Study of the principles of visual information organization and sketching techniques for the communication of visual ideas. Introduction to various techniques for problem-solving. CSU/UC

GRPH 23. Orientation to Design and Graphic Communications (2)
Lec-2
A survey class designed to acquaint students with areas of study and employment in graphic design/illustration, industrial design, and print production. Guest appearances from practicing professionals and industry leaders. CSU
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 25</td>
<td>Digital Skills for Visual Media (3)</td>
<td>Lec-2, lab-4</td>
<td>A foundational hands-on Mac computer class for all graphic communications students. Topics of instruction will include computer hardware and OS software, networks, type and text formatting, raster and vector graphics, time-based media, layout for print and web, and best practices. Topics will be covered through lecture and practical exercises. CSU</td>
</tr>
<tr>
<td>GRPH 27</td>
<td>Survey of Print Production (3)</td>
<td>Lec-2, lab-4, field trips</td>
<td>A technical print production course designed to provide practical laboratory projects in graphic arts paste-up, camera, film assembly and press. Students begin projects in paste-up, using traditional production techniques, and complete them in the press area. CSU</td>
</tr>
<tr>
<td>GRPH 35</td>
<td>Graphic Design (3)</td>
<td>Lec-2, lab-4, field trips</td>
<td>Development of problem-solving and conceptualization skills for graphic design. Exploration of various design principles and their applications. Use of design elements, type and image to communicate effectively to a target audience. CSU/UC</td>
</tr>
<tr>
<td>GRPH 36</td>
<td>Intermediate Graphic Design (3)</td>
<td>Lec-2, lab-4, field trips</td>
<td>An advanced graphic design class focusing on the development of a personal voice and conceptual approach to design thinking. Topics include visual language, sequential design, information design and design writing and research. Design process is emphasized. CSU</td>
</tr>
<tr>
<td>GRPH 37</td>
<td>Advanced Graphic Design (3)</td>
<td>Lec-2, lab-4, field trips</td>
<td>An introductory course in Adobe Illustrator, covering concepts of vector-based graphics creation. Students reproduce existing images to learn the various tools available within the application. Accuracy and control of Bezier curves is emphasized. CSU</td>
</tr>
<tr>
<td>GRPH 40</td>
<td>Digital Printing/Publishing (3)</td>
<td>Lec-3, lab-3, field trips</td>
<td>A technical course focusing on digital printing and publishing technology using a Xerox Docutech 135 system. Production concepts and practices including job programming, system features, maintenance, workflow management and customer service. CSU</td>
</tr>
<tr>
<td>GRPH 53A</td>
<td>Basic Typography (3)</td>
<td>Lec-3, lab-1, field trips</td>
<td>Beginning typography with a study of the history, classification, terminology, and use of type in communications. Students will develop an understanding of type mechanics and design issues through practical exercises and assignments. CSU</td>
</tr>
<tr>
<td>GRPH 53B</td>
<td>Typographic Design (3)</td>
<td>Lec-3, lab-1, field trips</td>
<td>Continued study of typography with emphasis on the development of an awareness of typographic form and structure. The role of typography in communications will be explored through practical exercises in typesetting and typographic design. CSU</td>
</tr>
<tr>
<td>GRPH 60</td>
<td>Product Finishing (2)</td>
<td>Lec-1.5, lab-1.5, field trips</td>
<td>A survey and analysis of commercial finishing techniques currently used in print and design production with instruction and practice operating machinery including paper drills/stickers, cutters, folders, packaging equipment and online finishing systems. Instruction on paper stocks, book imposition, specialty finishing and quality control assessment. CSU</td>
</tr>
<tr>
<td>GRPH 98A</td>
<td>Beginning Adobe Photoshop (3)</td>
<td>Lec-3, lab-1</td>
<td>Intensive hands-on course using Adobe Photoshop. A broad understanding of raster image creation and editing is achieved through in-class projects. CSU</td>
</tr>
<tr>
<td>GRPH 98B</td>
<td>Advanced Adobe Photoshop (3)</td>
<td>Lec-3, lab-1</td>
<td>An advanced, hands-on course in Adobe Photoshop. Creative projects are used to help students develop an understanding of Photoshop as a design tool. CSU</td>
</tr>
<tr>
<td>GRPH 100A</td>
<td>Beginning Adobe Illustrator (3)</td>
<td>Lec-3, lab-1</td>
<td>An introduction to page layout using Adobe InDesign. Topics include typesetting and text handling, placing and manipulating images, combining type and images, creating objects, using styles for formatting text and objects, creating and applying color, packaging and printing files. CSU</td>
</tr>
<tr>
<td>GRPH 100B</td>
<td>Advanced Adobe Illustrator (3)</td>
<td>Lec-3, lab-1</td>
<td>An advanced course in Adobe Illustrator. Creative projects are used to help students develop a deeper understanding of Illustrator as a design tool. CSU</td>
</tr>
<tr>
<td>GRPH 101A</td>
<td>Beginning Adobe InDesign (3)</td>
<td>Lec-3, lab-1</td>
<td>An introduction to page layout using Adobe InDesign. Topics include typesetting and text handling, placing and manipulating images, combining type and images, creating objects, using styles for formatting text and objects, creating and applying color, packaging and printing files. CSU</td>
</tr>
<tr>
<td>GRPH 101B</td>
<td>Advanced Adobe InDesign (3)</td>
<td>Lec-3, lab-3</td>
<td>Continued study and use of Adobe InDesign for print; advanced typesetting, creating and applying grids in single and multi-page documents, in depth use of master pages and styles, tables, transparency, books, imposition, preflight, packaging, and output. CSU</td>
</tr>
</tbody>
</table>
GRPH 110A. Beginning Digital Illustration (3)  
Lec-3, lab-3  
Prereq.: GRPH 100A, GRPH 98A, ART 130A  
Advise: DSGN 110  
Repeat: max. 6 units  
This course covers techniques in Adobe Photoshop and Adobe Illustrator for illustrators. While gaining technical knowledge, students will also begin to explore stylistic options and build a body of work. Sketching and other techniques for developing concepts are also covered. CSU/UC

GRPH 110B. Advanced Digital Illustration (3)  
Lec-3, lab-3  
Prereq.: GRPH 101A  
An advanced course in digital illustration focusing on the development of conceptual and narrative skills as they apply to a range of illustration projects. CSU/UC

GRPH 112. Digital Illustration for Fashion (3)  
Lec-3, lab-1  
Prereq.: GRPH 25 and FASH 35B  
Repeat: max. 6 units  
This course covers techniques in Adobe Photoshop and Illustrator for Fashion Designers. CSU

GRPH 118. Digital Illustration Portfolio (2)  
Lec-2  
Prereq.: GRPH 110A  
A course in portfolio development, copyright law and professional practices for aspiring digital illustrators. CSU

GRPH 123A. Industrial Design (3)  
Lec-2, lab-4  
Lab, fee required  
Historical evolution of industrial design from its inception through present concepts and trends. Student research, sketches and drawings will be used to manufacture products, utilizing various materials such as cardboard, modeling clay, plaster and plastics. Emphasis on technical development, design and problem solving as demonstrated by the finished assignments. CSU

GRPH 133. Visual Communication - Animation (3)  
Lec-3, lab-1  
Prereq.: GRPH 21 or ART 125A or MMSP 125; and GRPH 25 or MMSP 120  
Advise: GRPH 100A and 98A  
The theory and methods of communicating through animation for new media. Character development and storyboarding will be emphasized. Students will be introduced to simple animation on the computer via animated GIFs and software such as Macromedia Flash. CSU

GRPH 140. Graphic Design for Web (3)  
Lec-3, lab-3  
Prereq.: GRPH 35  
Coreq.: MMSP 130  
The design process for interactive media: information design, content/structure relationships, interface design and navigation, and presentation design issues. The design and production of a prototype for a simple interactive project. CSU

GRPH 145. Publishing for New Media (3)  
Lec-3, lab-3, field trips  
Prereq.: GRPH 35; and GRPH 25 or MMSP 120  
The design process for World Wide Web publishing. Analysis of the principles of print publishing as applied to the Web. Technical topics include bandwidth, graphic formats, type, and color. Design and maintenance of a Web publication as an ongoing project. CSU

GRPH 147. Adobe Acrobat (1)  
Lec-1, lab-1  
Prereq.: GRPH 25 or MMSP 120  
Use of Adobe Acrobat to transform computer-generated documents into a portable document format that can be viewed and printed from any type of computer. Emphasis is placed on creating files that print accurately. CSU

GRPH 148. Professional Practice (2)  
Lec-2, field trips  
Prereq.: Successful completion of three semesters of study in the Graphic Communications Department  
Advanced course focusing on graphic design professional practices: resume and portfolio development, freelancing and small business issues, fees, contracts, taxes, copyright, helpful resources and other related topics. CSU

GRPH 149. Portfolio Development (2)  
Lec-2  
Prereq.: GRPH 35, GRPH 53A, GRPH 98A, GRPH 100A and GRPH 101A  
Portfolio development for graphic design and production art. The course will cover design strategies, format options, and editing and sequencing for print and interactive media. CSU

GRPH 151. Lettering and Type (1)  
Lec-1, lab-1, field trips  
Prereq.: GRPH 21  
Advise: GRPH 53A  
Repeat: max. 2 units  
Instruction in hand-lettering with an emphasis on the relationship between calligraphy and type design. Study of and practice in various lettering styles and techniques; creative exercises in letterform design. CSU

GRPH 152. Digital Font Creation (1)  
Lec-1, lab-1, field trips  
Prereq.: GRPH 21, 100A  
Advise: GRPH 78, 53A, 151  
Hands-on experience in creating fonts for the Macintosh computer. Practice in all the digital aspects of the process from concept to execution. Discussion of standards, uses and techniques of type design, and of the current state of the industry. CSU

GRPH 153. Book Structures, Boxes and Bindings (2)  
Lec-2, lab-4  
Repeat: max. 8 units  
An introduction to the various practical methods of contemporary book design and production within a context of the historical development of book structures. CSU

GRPH 154. Hand Printed Book: Design and Production (3)  
Lec-2, lab-4  
Repeat: max. 9 units  
The bookmaking process focusing on the design of pages using fine art printmaking combined with letterpress and digital typesetting.
technologies. Participation in the bookmaking process as author, illustrator, and publisher. Research on the history of the book and an examination of the book arts community in San Francisco and beyond. CSU

GRPH 154 = ART 154

GRPH 155. Bookbinding (3)
Lec-2, lab-4
Repeat: max. 9 units
Study and practice of bookbinding. First: basic structures and craftsmanship. Second: innovative bindings and conservation techniques. CSU
GRPH 155 = ART 155

GRPH 197. Graphic Design Work Experience/Internship (1)
Work-5
Prereq.: GRPH 53B and 36
Coreq.: Enrollment in at least 7 units of coursework including this course and consent of instructor
Repeat: max. 2 units
Application of graphic design skills and development of proficiency in a supervised work environment. CSU

GRPH 198. Production Art Work Experience/Internship (1)
Work-5
Prereq.: GRPH 53A, 98A, 99A, and 100A
Coreq.: Enrollment in at least 7 units of coursework including this course and consent of instructor
Repeat: max. 2 units
Application of production art skills and development of proficiency in a supervised work environment. CSU

GRPH 199. Print Production Work Experience/Internship (1)
Work-5
Prereq.: GRPH 25 and 40 or 72A
Coreq.: Enrollment in at least 7 units of coursework including this course and consent of instructor
Advise: GRPH 60, 67
Repeat: max. 2 units
Application of print production skills and development of proficiency in a supervised work environment. CSU

Noncredit Courses:

GRPH 0921. Design and Type Fundamentals (90 hrs)
An introduction to design and typography as a language for visual communication, covering design elements and principles, design process, vocabulary of type and use of layout and type to create effective communication.

GRPH 0925. Intro to Mac Graphics (90 hrs)
An introductory, hands-on Macintosh computer class for graphic arts. Computer hardware, system software, text formatting, raster and vector graphics will be covered.

GRPH 1000. Introduction to Adobe Illustrator (45 hrs)
Advise: TIPL 9661
An introductory course for Adobe Illustrator-the industry standard, vector-based digital illustration software. This course will establish an understanding of the basic features in Adobe Illustrator.

GRPH 1008. Introduction to Adobe Photoshop (45 hrs)
Advise: TIPL 9661
An introductory course for Adobe Photoshop-the industry standard, raster-based digital imaging and editing software. This course will establish an understanding of the basic features in Adobe Photoshop.

GRPH 1009. Introduction to Adobe InDesign (45 hrs)
Advise: GRPH 0925
An introductory course in Adobe InDesign for page layout. This course will establish an understanding of the basic features of Adobe InDesign for the creation of single and multi-page documents.

Game Design and Development

GAME 100. Exploring Game Worlds (3)
Lec-3, lab-1, field trips P/NP available
An introduction to the history and status of interactive games. Students examine games as an art form and as part of an evergrowing industry. Includes an introduction to the career opportunities in the game industry. Students will learn how individual games are made, distributed and sold. CSU

GAME 130. Game Production Workflow (3)
Lec-3, lab-1 P/NP available
Prereq.: GAME 100
Coreq.: MMSP 147
Advise: MMSP 148
This course develops fundamental skills in production and project management for interactive games. This course will explore the process of game production through designing, scheduling and creating an original playable prototype in a 3D game engine. Students will design independently and as part of a team. CSU/UC

GAME 140. Team Production of Games (3)
Lec-3, lab-1 P/NP available
Prereq.: GAME 130
Advise: MMSP 148
This course provides students with the experience of working in a videogame development team. It enables students to understand the collaborative model employed in the commercial videogame production environment where different departments each bring special skill-sets to a single product.

GAME 150. Career Planning and Portfolio Development (3)
Lec-3, lab-1, field trips P/NP available
Prereq.: GAME 130
Advise: MMSP 148
This course provides students with the experience of working in a videogame development team. It enables students to understand the collaborative model employed in the commercial videogame production environment where different departments each bring special skill-sets to a single product.

Multimedia Studies

MMSP 110. Orientation to Multimedia (2)
Lec-2, field trips P/NP available
A survey class focused on the various opportunities for development in multimedia with an emphasis in employment in the multimedia industry. Learn first-hand from guest lectures by industry professionals and visits to studios, production companies and schools. CSU
Formerly IDST 110
MMSP 115. Multimedia Skills and Careers (2)
Lec-1, lab-3, field trips
Skills-based computer class. Hardware and software issues, including system and application software on the Macintosh, cross platform issues and job search skills. Topics include: computer setup, word processing, graphics, scanning, web page production, résumé writing, interviewing and educational planning. Guest speakers. CSU
Formerly IDST 115

MMSP 120. Computer Skills for Multimedia (3)
Lec-2, lab-4 P/NP available
A hands-on computer class for multimedia students covering multimedia hardware and software on the Macintosh. Topics of instruction include: basic internet use, vector and bitmap software, basic animation, basic image-editing, sound and video editing, fonts and font management, file preparation for multimedia output, peripheral hardware set-up and cross platform issues. CSU
Formerly IDST 120

MMSP 125. Multimedia Content and Form (3)
Lec-3, Lab-3, field trips P/NP available
ADVIS E: COMPLETION OF OR CONCURRENT ENROLLMENT IN MMSP 120 OR GRPH 25
Understanding of content and visual form through the exploration of the fundamental design process as it pertains to the creation of multimedia products and titles. Function and importance of visual elements and design principles will be explored through handcrafted and computer exercises and projects. A survey of multimedia and its artistic and cultural relevancy will also be covered through lectures and student presentations. CSU/UC
Formerly IDST 125

MMSP 130. Multimedia Process and Production (3)
Lec-3, lab-3, field trips P/NP available
Prereq.: MMSP 120 or GRPH 25
ADVIS E: MMSP 125
Overview of web development, planning and production through a hands-on approach. Topics include: multimedia planning, budget development, creating wireframes and design, production and marketing techniques for a web site. Assignments will focus on pre-production planning and production of a web site. CSU
Formerly IDST 130

MMSP 131. Social Media for Professionals (3)
Lec-3 P/NP available
Prereq.: MMSP 120 or GRPH 25 or BCST 119
ADVIS E: MMSP 130 and CNIT 129
This course teaches students how to use online social media tools such as Facebook, Twitter, LinkedIn and You Tube to develop, integrate and leverage online social networks. Students learn how to set up a professional media campaign as they engage clients with these tools. Students also critique current social media practices. CSU

MMSP 132. Digital Media Distribution (2)
Lec-2, lab-1 P/NP available
Prereq.: MMSP 120 or BCST 119
Repeat: max. 4 units
Students learn the tools necessary to create, manipulate, and distribute rich media over the Internet. The course provides an introduction to preparing and compressing rich media files using various programs and applications, including Audacity, QuickTime, Windows Media, Real Player and Flash. CSU
Formerly IDST 132

MMSP 133. DVD Authoring (3)
Lec-3, lab-3 P/NP available
Prereq.: MMSP 120 or BCST 119
Coreq.: BCST 143 or 144 or CINE 56
Advis e: MMSP 125 or GRPH 21 or DSGN 101
The study of DVD authoring with emphasis on planning, designing and production through a hands-on approach. Topics include an overview of DVD technology, storyboarding, flowcharting, gathering and creating assets, encoding and integration of time-based media (including digital video and audio), interface design and final DVD production. Students take their own DVD project through each stage from pre-production to final production. CSU
Formerly IDST 133

MMSP 135A. Web Design with Dreamweaver (3)
Lec-3, lab-1 P/NP available
Prereq.: MMSP 130
Advis e: MMSP 125
Beginning production for the World Wide Web using Dreamweaver. Topics include separating markup, presentation, and content. Dreamweaver’s support for Section 508, production of accessible web sites, and using Cascading Style Sheets are also covered. CSU
Formerly IDST 135A

MMSP 135B. Advanced Web Design with Dreamweaver (3)
Lec-3, lab-1 P/NP available
Prereq.: MMSP 135A
Overview of advanced multimedia production for the World Wide Web using Dreamweaver. Topics include static versus dynamic web sites, database-driven websites, creating and styling dynamic web pages, and standards-based web production. CSU
Formerly IDST 135B

MMSP 140. Flash Essentials (3)
Lec-3, lab-1 P/NP available
Prereq.: MMSP 120 or GRPH 25
This class covers the essential features of Adobe Flash, including drawing, animation, sound and interactivity using beginning ActionScript 3.0. This course prepares students for advanced multimedia classes in 2D animation. Flash web design and Flash game development. CSU

MMSP 144. Current Topics in Multimedia Production (2)
Lec-1, lab-3, field trips
Prereq.: MMSP 120 or GRPH 25
Repeat: max. 8 units
Exploration of current issues in multimedia production, including industry standards and innovations. Topics will include file formats and content/asset editors, as well as current and future trends. Other topics will vary. CSU
Formerly IDST 144

MMSP 145. Storytelling and Storyboarding for New Media (3)
Lec-3, lab-1, field trips P/NP available
Prereq.: MMSP 125 or GRPH 21 or ART 125A or ART 130A
This course is designed to aid the multimedia student in the generation and development of content for their multimedia projects. Referencing and using traditional storytelling methods, personal writing, script writing techniques and performance exercises in and outside of the classroom, the student will explore multiple ways to generate and script content. Emphasis put on development of skills and techniques of storyboarding. CSU
Formerly IDST 145
MMSP 146. 2D Animation with Flash (3)
Lec-2, lab-4, field trips P/NP available
Prereq.: MMSP 140 or CS 183A
Advis.: ART 130A or ART 132A
Not open to students who have successfully completed IDST 155.
Introduction to 2D animation from concept to finished project. Areas covered include historical perspective, overview of the industry, principles of animation, animation process, narrative development, storyboarding, character development, 2D drawing and animation skills for use in creating 2D animation with Adobe Flash. CSU
Formerly IDST 146

MMSP 147. 3D Imaging with 3D Studio Max (3)
Lec-2, lab-4 P/NP available
Prereq.: MMSP 120 or GRPH 25; and MMSP 125 or ART 130A
Repeat: max. 9 units
An introduction to techniques used in 3D modeling and imaging. An overview of the 3D industry, as well as the specific tools and techniques used in multimedia. CSU
Formerly IDST 147

MMSP 148. Game Design for Multimedia (2)
Lec-1, lab-3 P/NP available
Prereq.: MMSP 140 or CS 183A
Coreq.: MMSP 146
Advis.: MMSP 147 and CS 183B
This multimedia course will focus on game design with an emphasis on game history, game genres, character and story development as well as level and interaction design. A final game prototype will be created either as a paper prototype or a digital game beta with implemented interactivity. CSU
Formerly IDST 148

MMSP 149. Designing Interactive Applications with Flash (3)
Lec-1, lab-3 P/NP available
Prereq.: CS 183A or MMSP 140
A course that combines design and programming to show students an overview of what’s possible in Flash and provide hands-on experience building web sites and other Flash applications. The class format includes lecture, discussion, hands-on exercises and a final project. CSU
MMSP 149 = CS 180
Formerly IDST 149

MMSP 150. Advanced Multimedia Production (3)
Lec-1, lab-7 P/NP available
Prereq.: MMSP 135A
Repeat: max. 12 units
An advanced multimedia production course, allowing students to develop their skills in a team-based environment. Students will design, prepare and produce a multimedia project. CSU
Formerly IDST 150

MMSP 151. Independent Multimedia Projects (2)
Ind-st-10 P/NP available
Prereq.: MMSP 125 and 130 or demonstration of exit skills
Repeat: max. 4 units
Students develop projects defined by CCSF client and instructor. Typical projects include a CCSF departmental web site, marketing CD-ROM or instructional DVD. CSU
Formerly IDST 151

MMSP 160. Multimedia Internship/Work Experience (2)
Conf-1, work-7, field trips Repeat: max. 8 units
Work experience as an intern in multimedia development companies throughout the Bay Area. CSU
Formerly IDST 160

MMSP 165. Multimedia Portfolio Development (2)
Lec-1, lab-3, field trips P/NP available
Prereq.: MMSP 130
Repeat: max. 4 units
Conceptualization and development of a multimedia portfolio for gaining entry-level work in the multimedia industry. Includes resume writing, interview techniques, contracts, licensing issues, and other areas of professional practice. CSU
Formerly IDST 165

Health Care Technology
Office: John Adams
Phone Number: (415) 561-1967
Web Site: www.ccsf.edu/Departments/Health_PE/health_care-tech/

Announcement of Curricula

General Information
The Health Care Technology Department offers a variety of vocational programs to prepare students for employment in the healthcare profession. Please see individual program areas for specifics regarding registration, certification, licensure and/or degree status.

Learning Outcomes
Programs within the Health Care Technology Department prepare individuals for employment in both in-hospital and pre-hospital careers. Students successfully completing programs shall attain the knowledge and competency based skills required to pass certification or licensure examinations.

Paramedic Major (AS)

General Information. The Emergency Medical Technician Paramedic (EMTP) Program provides students with the knowledge and skills necessary to provide advanced emergency medical care in the pre-hospital setting. The licensed paramedic is the highest level of the pre-hospital care team and may find employment with a fire department, private ambulance service, third city service, hospital, or other operation. The Paramedic Program includes classroom didactic, practical laboratory, in-hospital clinical and pre-hospital field internship to allow students to sit for the National Registry Paramedic Licensure Examination upon successful completion of the program.

Accreditation. The Paramedic Program is accredited by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoA-EMSP).

Prerequisites. The prerequisite for the Paramedic Program is current EMT-I certification per CCR. DIV I Title 22. It is recommended that students have six months field experience as an EMT-I prior to submitting an application to the Paramedic Program.

Admission to the Program. Enrollment is open to qualified applicants who fulfill the following admission requirements:
1. Hold a current California EMT-I certification
2. Attend mandatory information session
3. Complete application to the program
4. Pass the EMT review test at 75% or higher
5. Submit two letters of recommendation

General Education. The Paramedic Program is structured so students may satisfy the requirements for graduation from the College. Students who satisfy these requirements and complete the paramedic curricula with a grade of 3.0 or higher and grade of 2.5 or higher in general education classes may receive the Associate in Science Degree with a Major in Paramedic Training.

The course of study is designed so students who complete each of the following courses, and complete the Graduation requirements for the Associate in Science Degree, or the CCSF transfer Associate Degree General Education requirements, will satisfy the requirements for the Paramedic Major.

Courses Required for the Major in Paramedic
Classes are offered in a sequence that may not match with semester start and end dates, so classes are listed in order of sequence only.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT-P 120 Paramedic Theory-Human Systems</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 121 Paramed Theory-Roles &amp; Responsib</td>
<td>2</td>
</tr>
<tr>
<td>EMT-P 122 Paramed Theory-Drugs, IV, Airway</td>
<td>2.5</td>
</tr>
<tr>
<td>EMT-P 123 Paramed Theory-Trauma</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 124 Paramed Theory-PHTLS</td>
<td>1</td>
</tr>
<tr>
<td>EMT-P 125 Paramed Theory-Cardiac</td>
<td>4.5</td>
</tr>
<tr>
<td>EMT-P 126 Paramed Theory-Endocrine/Nervous</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 127 Paramed Theory-Special/Abdominal</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 128 Paramed Theory-Repro/Pedi</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 129 Paramed Theory-Special Systems</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 130 Paramed Theory-Clinical/Fid Intern</td>
<td>12</td>
</tr>
<tr>
<td>EMT 104 Intermediate Skills for the EMT</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>53</td>
</tr>
</tbody>
</table>

CVT and Echocardiography Major* (AS)

*The program is pending state approval.

Please refer to the online version of the Catalog.

CVT/Echocardiography Technician Certificate
Students who complete their training satisfactorily are prepared to hold positions as cardiac sonographers, echocardiography technicians, or cardiovascular technicians in a medical center, cardiology officer or health center. The course of study is designed so students who successfully complete each of the following courses will satisfy the requirements for the Certificate of Achievement in Cardiovascular Technology and Echocardiography.

Learning Outcomes
Students will develop an understanding of the principles of ultrasound as it relates to cardiac anatomy, function, hemodynamics, anomalies, and disease states. The Cardiovascular Technology and Echocardiography program provides graduates who:
1. Provide a safe and appropriate non-invasive ultrasound environment for patients in a medical setting.
2. Demonstrate the attainment of the clinical skills and knowledge to perform comprehensive cardiac studies for diagnostic purposes.
3. Will model professional standards learned in the assigned clinical rotations and will work as a team member in such settings.
4. Will apply and sit for the American Registry of Diagnostic Medical Sonography, RDCS (Registered Diagnostic Cardiac Sonographer) or Cardiovascular Credentialing International, RCS (Registered Cardiac Sonographer) national registry examinations.

Courses Required for the Certificate of Achievement in CVT/Echocardiography Technician

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>ECHO 101 Echocardiography</td>
<td>7</td>
</tr>
<tr>
<td>CVT 101 Cardiovascular Technician</td>
<td>3</td>
</tr>
<tr>
<td>CVT 110 Cardiovascular Skills</td>
<td>7</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>ECHO 201 Adv. Echocardiography Technician</td>
<td>6</td>
</tr>
<tr>
<td>CVT 201 Adv. Cardiovascular Technician</td>
<td>4</td>
</tr>
<tr>
<td>CVT 210 Adv. Cardiovascular Skills</td>
<td>7</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>ECHO 301 Adv. Cardiac Abnormalities</td>
<td>5</td>
</tr>
<tr>
<td>CVT 301 Adv. Physics of Ultrasound</td>
<td>3</td>
</tr>
<tr>
<td>CVT 310 Adv. Clinical Experience in Cardiac Ultrasound</td>
<td>9</td>
</tr>
<tr>
<td>Total Units</td>
<td>68</td>
</tr>
</tbody>
</table>

EKG Technician Certificate

Program Goal. Prepares students to operate an EKG machine and work as technicians in non-invasive cardiac diagnostic laboratory units in hospitals, diagnostic laboratories, and medical clinics and facilities. Students will be able to prepare patients for EKG mountings and tracings, will learn the cardiovascular system, and interpret EKG readings. Upon completing program, students will also become cognizant of advanced heart diseases including interpretation of advanced arrhythmias, hypertrophies, and myocardial infarction. Students will also be able to operate a 12 lead, 3 channel EKG machine. For more information all 561-1900.

Prerequisites. CCSF placement.

Courses Required for the Certificate of Accomplishment in EKG Technician

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EKGT 101 EKG Technician I</td>
<td>4</td>
</tr>
<tr>
<td>EKGT 102 EKG Technician II</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>8</td>
</tr>
</tbody>
</table>

Additional Requirements. Successful completion of program with a grade of C or higher and minimum of 80% attendance.

Emergency Medical Technician Certificate

Program Goal. The program will assist the EMT trainees in developing skills in areas of specialized emergency problems

The Program is designed to prepare students to sit for the National Registry Emergency Medical Technician Certifying Examination.

Admission Requirements. CCSF placement.

Courses Required for the Certificate of Accomplishment in Emergency Medical Technician

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 102 Emer Med Tech I, Clinical</td>
<td>1</td>
</tr>
<tr>
<td>EMT 100 Emer Med Tech I, Theory</td>
<td>12</td>
</tr>
<tr>
<td>Total Units</td>
<td>13</td>
</tr>
</tbody>
</table>
Additional Requirements. Completion of required courses with a C grade or higher in each phase of the program.

**Paramedic Certificate**

The program is designed to prepare students to sit for the National Registry Paramedic Licensure Examination.

**Credit Toward Graduation.** The credit students earn in obtaining the Certificate of Achievement in Paramedic may also be applied toward satisfaction of the requirements for graduation.

**Requirements for the Certificate of Achievement.** Students may obtain the Certificate of Achievement in Paramedic by completing each of the following courses.

| Courses Required for the Certificate of Achievement in Paramedic Course | Units
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT-P 120 Paramedic Theory-Human Systems</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 121 Paramed Theory-Roles &amp; Responsibilities</td>
<td>2</td>
</tr>
<tr>
<td>EMT-P 122 Paramed Theory-Drugs, IV, Airway</td>
<td>2.5</td>
</tr>
<tr>
<td>EMT-P 123 Paramedic Theory-Trauma</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 124 Paramedic Theory-PHTLS</td>
<td>1</td>
</tr>
<tr>
<td>EMT-P 125 Paramedic Theory-Cardiac</td>
<td>4.5</td>
</tr>
<tr>
<td>EMT-P 126 Paramed Theory-Endocrine/Nervous</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 127 Paramed Theory-Special/Abdominal</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 128 Paramedic Theory-Rep/Abdom</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 129 Paramedic Theory-Special Systems</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 130 Paramed Theory-Clinical/Fld Intern</td>
<td>12</td>
</tr>
<tr>
<td>EMT 104 Intermediate Skills for the EMT</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>53</td>
</tr>
</tbody>
</table>

**Health Information Technology**

**General Information**

The Health Information Technology Program provides students with the knowledge and skills necessary to process analyze, disseminate and maintain health care information. A career as a health information professional offers a unique opportunity to combine an interest in health information, business, and computer information science. Historically, medical records have been a paper-based or in hybrid format. The demand to advance the implementation of electronic health records (EHRs) requires training of health information professional to enter the workforce.

**Accreditation.** The Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

**Degree Curricula**

Upon successful completion of the two-year curriculum in Health Information Technology, graduates are trained to perform specialized skills in collecting, organizing, and analyzing critical data to improve healthcare outcomes, implement standards, ensure privacy and security, and control costs.

As one of the fastest growing occupations, possible career opportunities include the following: Health Information Analyst, Release of Information, Consultant, ICD/CPT Coder, Medical Staff Coordinator, Health Information Abstractor, Manager, Health Information, Data Quality Manager, and Quality Improvement Coordinator.

Employment opportunities in a field rated as the nation's tenth most employable career may be possible in the following settings: Acute Care, Ambulatory Care, Long-Term/Rehabilitation, Cancer Registries, State and Federal Health Agencies, Professional Review Organizations, Insurance Companies, Consulting Firms, Behavioral Health/Chemical Dependency, and Pharmaceuticals.

**Admission.** Enrollment is open to all interested students who fulfill the following admission requirements:

1. Eligible for credit classes (See admission requirements.)
2. Strongly recommended for success in the HIT program: ENGL 90 or ESL 150 or placement in ENGL 92 or ESL 160.
3. Attend a HIT orientation session. Allows students a chance to ask questions about requirements and structure of the program.
4. Certain programs have prerequisites that must be met prior to enrollment in individual classes.

**Credit by Examination.** Refer to College Catalog

**Associate in Science Degree in Health Information Technology.** The curriculum is designed so that students may satisfy the requirements for graduation from the College. Students who satisfy these requirements and complete the Health Information Technology Curriculum with a 2.0 grade point average or higher receive the Associate in Science Degree in Health Information Technology.

**National Certification Examination Registered Health Information Technician (RHIT).** Graduates with an Associate in Science Degree from the College and an Associate in Science Degree in Health Information Technology are eligible to apply and take the national certification examination given by the American Health Information Association to earn the Registered Health Information Technician (RHIT) credential.

Students who already possess an associate, bachelor's degree, or higher in a discipline must apply for an Associate in Science degree from the college and Associate in Science Degree in Health Information Technology.

**Course of Study.** Each option, in addition to an emphasis in the major field, includes training in the following areas common to a variety of health care settings: computer applications to assemble and analyze patient data for the purpose of improving patient care or controlling costs; analysis of the record by verifying their completeness, accuracy and proper entry into computer systems to ensure quality; coding diagnoses and procedures in patient records for reimbursement, research and statistics; cancer registries which maintain and compile data on cancer patients and cancer registrars; release of information; quality assurance and personnel management. Supervised professional practice in the third and fourth semesters gives students experience in health information departments in various health care facilities.

**Basis for Disqualification.** Students who receive a final grade lower than C in any Health Information Technology course will be disqualified from continuing in the program. Students will be permitted to repeat a course only once and must achieve a grade of C at all evaluation periods. Students may also be disqualified for other reasons consistent with College policy.

**Health Information Technology Program.** The Health Information Technology Program provides students with the knowledge and skills necessary to process analyze, disseminate and maintain health care information. A career as a health information professional offers a unique opportunity to combine an interest in health information, business, and computer information science. Historically, medical records have been a paper-based or in hybrid format. The demand to advance the implementation of electronic health records (EHRs) requires training of health information professionals to enter the workforce. The HIT Program is accredited by the Commission on Accreditation of Health Informatics and Information Management Education (CAHIIM).
### Health Information Technology Major (AS)

**Courses Required for the Major in Health Information Technology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>One of the following options in Anatomy and Physiology:</td>
<td></td>
</tr>
<tr>
<td>Option 1:</td>
<td></td>
</tr>
<tr>
<td>ANAT 14 Intro to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Option 2:</td>
<td></td>
</tr>
<tr>
<td>ANAT 25 General Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1 Introductory Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>or PHYS 12 Intro to Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>Course</td>
<td>Units</td>
</tr>
<tr>
<td>HCT 61 Introduction to Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 73A Basic ICD Coding</td>
<td>2</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>HIT 50B Medical Terminology II</td>
<td>2</td>
</tr>
<tr>
<td>HIT 57 Disease Process</td>
<td>3</td>
</tr>
<tr>
<td>HIT 63 Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIT 65 Organization of Health Data</td>
<td>2</td>
</tr>
<tr>
<td>HIT 73B Advanced ICD-9-CM Coding</td>
<td>4</td>
</tr>
<tr>
<td>HIT 77A Professional Practice Experience I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 74 Introduction to Quality Improvement</td>
<td>2</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>HIT 72 Legal Aspects of HIT</td>
<td>3</td>
</tr>
<tr>
<td>HIT 73B Advanced ICD-9-CM Coding</td>
<td>4</td>
</tr>
<tr>
<td>HIT 77A Professional Practice Experience I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 74 Introduction to Quality Improvement</td>
<td>2</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>HIT 75 Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>HIT 76 CPT Coding</td>
<td>3</td>
</tr>
<tr>
<td>HIT 77B Professional Practice Experience II</td>
<td>3</td>
</tr>
<tr>
<td>HIT 78 Reimbursement Methods in HI</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>47–52</td>
</tr>
</tbody>
</table>

**Certificate Curricula**

Students may obtain the Certificate of Accomplishment in Health Information Clerk I, or Certificate of Achievement in Health Information Clerk II, Health Information Coding Specialist, Medical Transcription, and Health Information Technology by completing the curriculum with a final grade point average of 2.00 or higher and also complete each individual course with a final grade of C or higher or Pass.

### Health Information Clerk II Certificate

This certificate program prepares students for technical positions in medical record/health information departments, ambulatory, long term/rehabilitation, psychiatric/drug rehabilitation, home health, hospice, cancer registries, pharmaceutical companies, and other health care settings. Employment opportunities include organizing, analyzing, and technically evaluating medical records to established standards; maintaining and using a variety of indices and storage retrieval systems; controlling the usage and release of health information; abstracting health data and compiling statistics for health care; and coding of records according to specific classification systems.

**Courses Required for the Certificate of Achievement in Health Information Clerk II**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>One of the following options in Anatomy and Physiology:</td>
<td></td>
</tr>
<tr>
<td>Option 1:</td>
<td></td>
</tr>
<tr>
<td>ANAT 14 Intro to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Option 2:</td>
<td></td>
</tr>
<tr>
<td>ANAT 25 General Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1 Introductory Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>or PHYS 12 Intro to Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>Course</td>
<td>Units</td>
</tr>
<tr>
<td>HCT 61 Intro to Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 67 Computer Applications in the Health Care Setting</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 90 Basic Comp &amp; Reading I</td>
<td>3</td>
</tr>
<tr>
<td>or ESL 72 Inter Comp and Reading</td>
<td>3</td>
</tr>
<tr>
<td>or ESL 150 Adv Academic ESL</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15–20</td>
</tr>
</tbody>
</table>

### Health Information Clerk I Certificate

This certificate program prepares students for entry-level positions in medical record/health information departments, physician offices, ambulatory, long-term, home health, and other health care settings. Opportunities for employment include reception and admitting/registration department responsibilities, filing and retrieval of records, sorting and filing loose documents, purging of records, storage and retention activities, data entry, and assembly of medical documents in a sequential order.

**Courses Required for the Certificate of Accomplishment in Health Information Clerk I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>One of the following options in Anatomy and Physiology:</td>
<td></td>
</tr>
<tr>
<td>Option 1:</td>
<td></td>
</tr>
<tr>
<td>ANAT 14 Intro to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Option 2:</td>
<td></td>
</tr>
<tr>
<td>ANAT 25 General Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1 Introductory Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>or PHYS 12 Intro to Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>Course</td>
<td>Units</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 67 Computer Applications in the Health Care Setting</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 90 Basic Comp &amp; Reading I</td>
<td>3</td>
</tr>
<tr>
<td>or ESL 72 Inter Comp and Reading</td>
<td>3</td>
</tr>
<tr>
<td>or ESL 150 Adv Academic ESL</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15–20</td>
</tr>
</tbody>
</table>

* Requirement based on college Math Placement Test Score.
**Health Information Coding Specialist Certificate**

This certificate program prepares students to code medical records according to ICD-9-CM and CPT-4 coding classification systems and regulatory guidelines. Emphasis on preparing students to read and interpret medical record documentation and apply knowledge of anatomy and physiology, clinical disease process, pharmacology, and terminology to assign accurate codes to diagnoses and procedures to support clinical data. Students are trained to code manually and with encoders. Employment opportunities include coding in hospitals, physicians’ offices, clinics, ambulatory care facilities, long-term care, psychiatric, home health, and other health care settings. Other opportunities may include developing and maintaining a health information management compliance program, Diagnosis Related Groups (DRGs) activities, and utilization review.

**Courses Required for the Certificate of Achievement in Health Information Coding Specialist**

**Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>HCT 61 Intro to Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 67 Computer Applications in the Health Care Setting</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 90 Basic Comp &amp; Reading I or ESL 72 Inter ESL Comp &amp; Reading or ESL 150 Adv. Academic ESL</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>HIT 50B Medical Terminology II</td>
<td>2</td>
</tr>
<tr>
<td>HIT 57 Disease Process</td>
<td>3</td>
</tr>
<tr>
<td>HIT 63 Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIT 65 Organization of Health Care</td>
<td>2</td>
</tr>
<tr>
<td>HIT 73A Basic ICD Coding</td>
<td>2</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>HIT 73B Adv ICD-9-CM Coding</td>
<td>4</td>
</tr>
<tr>
<td>HIT 74 Introduction to Quality Improvement</td>
<td>2</td>
</tr>
<tr>
<td>HIT 76 CPT Coding</td>
<td>3</td>
</tr>
<tr>
<td>HIT 77A Professional Practice I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 78 Reimbursement Methods in HIT</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>41–46</td>
</tr>
</tbody>
</table>

**Medical Assisting Program**

**Degree Curricula**

(Options in Medical Office Assisting and Medical Administrative Assisting)

The curriculum in Medical Assisting, a two-year course of study, offers students training for employment through options in two areas: Medical Office Assisting and Medical Administrative Assisting. The Medical Office Assisting program is offered in cooperation with the American Association of Medical Assistants (AAMA).

**Admission.** Enrollment is open to all interested students; however, students must have completed ENGL 90 or ESL 150 or placement in ENGL 92 or ESL 160 or higher. Students must complete HCT 61, Introduction to Health Care, during their first semester with a final grade of C or higher. HCT 61 is an orientation course conducted by the faculty of the Health Care Technology Department to review the requirements and expectations of the curriculum. Students are also required to satisfy prerequisites in order to enroll in certain courses.

Students are required to submit evidence of a recent tuberculin skin test or chest x-ray, proof of immunizations, and a physical examination which indicates that they are in good physical health to include the following:

- vision correctable to 20/30 in both eyes
- able to stand unassisted for long periods of time
- able to walk, bend, reach, and stoop frequently
- able to assist patients on and off exam tables and in and out of wheel chaired
- normal hearing or corrected hearing within normal range
- able to manipulate stationary and mobile medical equipment
• behavior and social skills acceptable within the college and clinical rotations

Please refer to the Dictionary of Occupational Titles to review the Federal ADA guidelines. Go to: www.occupationalinfo.org

Students who enroll in HCT 82 must also hold a valid CPR. Healthcare Provider card from the American Heart Association, complete a background and drug and alcohol screening, and complete a HIPAA Awareness training to qualify for the Professional Practice Internship. Students are responsible for all fees required to qualify for enrolment in the Professional Practice Internship.

Credit by Examination. Applicants who have been admitted to the Program and who have previous education or medical assisting/clerical or related experience may apply for credit and advanced placement in the curriculum by transfer or challenge process.

Purchase of Lab Coat and Clinical Supplies. Students are responsible for purchasing a lab coat and stethoscope for use in the clinical skills courses. Other fees may be required for the clinical classes.

Accreditation. The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, Florida, 33756, (727) 210-2354, on recommendation of the Committee on Accreditation for Medical Assistant Education Review Board (MAERB).

Course of Study. Each option includes training in the following subjects common to all branches of medical assisting: Anatomy and physiology, medical terminology, typing and transcription, business correspondence, medical billing, insurance and coding, filing systems, medical records including the electronic health record, psychology and professional relationships, management and supervision, and CPR and first aid.

In addition, students who elect the option in Medical Office Assisting receive specialized training in clinical procedures including phlebotomy and medical laboratory techniques and are eligible to apply and sit for the CPT1 and CMA or RMA examinations.

In the Professional Practice Internship/Certification course (HCT 82), a course included in the second year, students complete 196 hours of supervised practical training off campus in their specific field of study. Students who elected the option of Medical Office Assisting are assigned to perform clinical and administrative duties with physicians and other medical personnel without compensation in an outpatient clinic, medical office or health center. Students who have elected the option in Medical Administrative Assisting are assigned primarily to perform administrative duties without compensation in an outpatient clinic, medical office, or health center.

Employment. Students who have completed their training satisfactorily are qualified for employment in various capacities. Those who have completed the option in Medical Office Assisting are prepared to hold positions combining the duties of medical assistant, receptionist, and office manager in outpatient clinics, medical offices or health centers. Those who have completed the option in Medical Administrative Assisting are qualified for the positions of receptionist, medical biller, admitting, ward clerk, or office manager in an outpatient clinic, medical office, and health center.

Associate in Science Degree. The curriculum is designed so that students may satisfy the requirements for graduation from the College. Students who satisfy these requirements and complete their training in Medical Office Assisting or Medical Administrative Assisting with a 2.0 grade point average or higher receive the Associate Degree in Medical Office Assisting or Medical Administrative Assisting.

Certified Medical Assistant Examination. Graduates who receive the Certificate of Completion in Medical Office Assisting are eligible to take the Certified Medical Assistant (CMA) examination given by the American Association of Medical Assistants (AAMA).

Medical Office Assisting Major (AS)

Students who complete their training satisfactorily are prepared to hold positions as a medical assistant, medical receptionist, or office manager in an outpatient clinic, medical office, and health center. Students must maintain a 2.0 grade point average or higher. The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAALHEP), 1361 Park Street, Clearwater, Florida, 33756, (727) 2102354, on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates who complete the Associate of Science in Medical Office Assisting are eligible to take the Certified Medical Assistant examination given by the American Association of Medical Assistants (AAMA).

Learning Outcomes

Upon completion of the Associate of Science degree in Medical Office Assisting degree program, the student will be able to:

• Perform the clinical and administrative skills necessary for entry-level employment as a medical assistant in an ambulatory health care setting
• Apply and sit for the Certified Medical Assistant (CMA) examination offered by the AAMA
• Apply and sit for the certified phlebotomy Technician (CPT-1) examination

Courses Required for the Major in Medical Office Assisting

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1 General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
| One of the following options in Anatomy and Physiology:
| Option 1:
| ANAT 14 Intro to Human Anatomy and Physiology | 4     |
| Option 2:
| ANAT 25 General Human Anatomy                | 4     |
| PHYS 1 Introductory Human Physiology or PHYS 12 Intro to Human Physiology | 4-5   |

Course

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCT 61 Introduction to Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HCT 66 Medical Typing/Transcription</td>
<td>4</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 57 Disease Process</td>
<td>3</td>
</tr>
<tr>
<td>MED 49 Clinical Procedures</td>
<td>4</td>
</tr>
<tr>
<td>MED 56 Administrative Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERT 104 Introduction to Phlebotomy</td>
<td>3.5</td>
</tr>
<tr>
<td>HIT 50B Medical Terminology II</td>
<td>2</td>
</tr>
<tr>
<td>HIT 76 CPT Coding</td>
<td>3</td>
</tr>
<tr>
<td>MED 55 The Electronic Health Record</td>
<td>4</td>
</tr>
<tr>
<td>MED 70 Bookkeeping/Insurance Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MED 71 Computers for the Medical Office</td>
<td>1.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Semester</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCT 82 Professional Practice Internship/Certification</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT 73A Basic ICD Coding</td>
<td>3</td>
</tr>
</tbody>
</table>
Medical Administrative Assisting Major (AS)

Students who complete their training satisfactorily are prepared to hold positions as a medical receptionist, medical biller, admitting clerk, ward clerk, or office manager in an outpatient clinic, medical office, or health center. Students must maintain a 2.0 grade point average or higher. Students are eligible to sit for the Certified Professional Coder (CPC) or Certified Coding Specialist, Physician Office (CCS-P) examinations.

Learning Outcomes

Upon completion of the Associate of Science degree in Medical Administrative Assisting degree program, the student will be able to:

- Perform the reception skills necessary for entry-level employment as an ambulatory health care setting
- Perform the medical billing procedures necessary for entry-level employment in an ambulatory health care setting
- Perform computer applications necessary for entry-level employment as an ambulatory health care setting
- Perform the management skills necessary for entry-level employment as an ambulatory health care setting
- Apply and sit for the Certified Professional Coder (CPC) examination

Courses Required for the Major in Medical Administrative Assisting

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 14 Intro to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1 Introductory Human Physiology or PHYS 12 Intro to Human Physiology</td>
<td>4–5</td>
</tr>
</tbody>
</table>

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCT 61 Introduction to Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HCT 66 Medical Typing/Transcription</td>
<td>4</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 57 Disease Process</td>
<td>3</td>
</tr>
<tr>
<td>MED 56 Administrative Procedures</td>
<td>3</td>
</tr>
<tr>
<td>HIT 50B Medical Terminology II</td>
<td>2</td>
</tr>
<tr>
<td>HIT 73A Basic ICD Coding</td>
<td>2</td>
</tr>
<tr>
<td>HIT 76 CPT Coding</td>
<td>3</td>
</tr>
<tr>
<td>MED 55 The Electronic Health Record</td>
<td>4</td>
</tr>
<tr>
<td>MED 70 Medical Bookkeeping and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MED 71 Electronic Management of Financial Medical Records</td>
<td>1.5</td>
</tr>
<tr>
<td>BSMA G, H, J, or MATH E1 OR E3</td>
<td>2–3</td>
</tr>
</tbody>
</table>

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT 57 Disease Process</td>
<td>3</td>
</tr>
<tr>
<td>HIT 73 A Basic ICD Coding</td>
<td>2</td>
</tr>
<tr>
<td>MED 72 Advanced Insurance Billing</td>
<td>3</td>
</tr>
<tr>
<td>MED 73 Advanced Medical Manager</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 92 Basic Composition and Reading or ESL 160 Advanced Composition</td>
<td>3–4</td>
</tr>
<tr>
<td>Total Units</td>
<td>35.5–42.5</td>
</tr>
</tbody>
</table>

*Based on placement scores

Medical Biller Certificate

This certificate program prepares students to complete medical insurance claims for outpatient clinics and medical offices. Students receive training in CPT and ICD coding, medical terminology, disease process, manual and computer bookkeeping procedures, manual and computer insurance billing for commercial, Medicaid, Medicare, Worker’s Compensation, and managed care plans.

Learning Outcomes

Upon completion of the Certificate of Achievement in Medical Biller, the student will be able to:

- Assign CPT codes to services and procedures
- Assign ICD codes to diagnoses
- Perform insurance billing procedures necessary for entry-level employment as an ambulatory health care setting
- Apply and sit for the Certified Professional Coder (CPC) examination

Courses Required for the Medical Biller Certificate of Achievement

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 14 Intro to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1 Introductory Human Physiology or PHYS 12 Intro to Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>HCT 66 Medical Typing/Transcription</td>
<td>4</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HIT 76 CPT Coding</td>
<td>3</td>
</tr>
<tr>
<td>MED 70 Medical Bookkeeping and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MED 71 Electronic Management of Financial Medical Records</td>
<td>1.5</td>
</tr>
<tr>
<td>BSMA G, H, J, or MATH E1 OR E3</td>
<td>2–3</td>
</tr>
</tbody>
</table>

Medical Evaluation Assistant Certificate

This certificate program is designed specifically for employment within the San Francisco Public Health Department including the neighborhood health clinics. Students have the option of completing additional courses for a Certificate of Achievement in Medical Office Assisting. Students receive training in anatomy and physiology, medical termi
ology, health care systems, medical typing and transcription, health education and disease processes, clinical procedures, phlebotomy, and computer applications. Students will complete an internship and must hold a valid CPR Health Provider card and a HIPAA Awareness Training certificate. Students may obtain the Certificate of Achievement for MEA by completing the following courses with a final grade of C+ (2.5 grade point average) or higher.

Enrollment is open to all interested students; however, students must have completed ENGL 90 or ESL 150 or place in ENGL 92 or ESL 160.

**Learning Outcomes**

Upon completion of the Certificate of Achievement in Medical Evaluation Assistant, the student will be able to:

- Perform the clinical skills necessary for employment as a Medical Evaluation Assistant within the San Francisco Department of Public Health system
- Apply and sit for the Certified Phlebotomy Technician (CPT-1) examination

**Courses Required for the Certificate of Achievement in Medical Evaluation Assistant**

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall Semester (15-20 units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCT 66 Medical Typing/Transcription</td>
<td>.................................</td>
<td>4</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I</td>
<td>.................................</td>
<td>3</td>
</tr>
<tr>
<td>MED 55 The Electronic Health Record</td>
<td>.................................</td>
<td>4</td>
</tr>
<tr>
<td>One of the following options in Anatomy and Physiology:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANAT 14 Intro to Human Anatomy and Physiology</td>
<td>.................................</td>
<td>4</td>
</tr>
<tr>
<td>Option 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANAT 25 General Human Anatomy</td>
<td>.................................</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1 Introductory Human Physiology</td>
<td>.................................</td>
<td>4-5</td>
</tr>
<tr>
<td>or PHYS 12 Intro to Human Physiology</td>
<td>.................................</td>
<td></td>
</tr>
<tr>
<td>Spring Semester (17.5 units)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERT 104 Introduction to Phlebotomy</td>
<td>.................................</td>
<td>4</td>
</tr>
<tr>
<td>HIT 50B Medical Terminology II</td>
<td>.................................</td>
<td>2</td>
</tr>
<tr>
<td>HIT 57 Disease Process</td>
<td>.................................</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 66 Health Education and Chronic Disease</td>
<td>.................................</td>
<td>3</td>
</tr>
<tr>
<td>MED 49 Clinical Procedures</td>
<td>.................................</td>
<td>4</td>
</tr>
<tr>
<td>MED 71 Electronic Management of Financial Medical Records</td>
<td>.................................</td>
<td>1.5</td>
</tr>
<tr>
<td>Summer (5 units)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCT 82 Professional Practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internship/Certification</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>37.5-42.5</td>
</tr>
</tbody>
</table>

**Medical Office Assisting Certificate**

The certificate in Medical Office Assisting provides students with both clinical and administrative training. Students who complete their training satisfactorily are prepared to hold positions as a medical assistant, medical receptionist, or office manager in an outpatient clinic, medical office, and health center. The medical assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAAHEP), 1361 Park Street, Clearwater, Florida, 33756, (727) 210-2354 on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates who complete the certificate of Achievement are eligible to take the Certified Medical Assistant (CMA) examination given by the American Association of Medical Assistants (AAMA). Students must be eligible for ENGL 92 or ESL 160 or higher.

**Learning Outcomes**

Upon completion of the Certificate of Achievement in Medical Receptionist, the student will be able to:

- Perform the medical receptionist skills necessary for entry-level employment in an ambulatory health care setting
• Perform the computer applications skills necessary for entry-level employment in an ambulatory health care setting

Courses Required for the Certificate of Achievement in Medical Receptionist

Course Units
Fall Semester (17-22 units)
One of the following options in Anatomy and Physiology:
Option 1:
ANAT 14 Intro to Human Anatomy and Physiology .......... 4
Option 2:
ANAT 25 General Human Anatomy ......................... 4
PHYS 1 Introductory Human Physiology  or PHYS 12 Intro to Human Physiology .......... 4-5

Course Units
HCT 61 Introduction to Health Care ......................... 3
HCT 66 Medical Typing/Transcription ....................... 4
HIT 50A Medical Terminology I  ......................... 3
MED 56 Administrative Procedures  ......................... 3

Spring Semester (14.5 units)
HIT 50B Medical Terminology II ......................... 2
HIT 76 CPT Coding ......................................... 3
MED 55 The Electronic Health Record ...................... 4
MED 70 Bookkeeping/Insurance Procedures ................. 3
MED 71 Electronic Management of Financial  Medical Records ............................................. 1.5
HLTH 12 Health Provider BLS-C/First Aid ................. 1

Summer (5 units)
HCT 82 Professional Practice  Internship/Certification  ......................... 5

Total Units .................................................. 36.5–41.5

Pharmacy Technician Certificate

Certificate Curricula

General Information

Students may obtain the Certificate of Achievement in Pharmacy Technician by successfully completing the two semester program. The Pharmacy Technician Program starts in the Fall Semester each year. The curriculum is designed to prepare students to work under the direct supervision of a pharmacist in hospitals, community based pharmacies and other institutional settings.

Admission. To be considered for admission to the program, applicants must:

1. Complete the pre-requisites to the Program: Math 40 and ENGL 93 or ENGL 94 or placement in ENGL 96.
2. Attend the orientation session scheduled during the month of April and pick up the Application to the Pharmacy Technician Program.
3. Complete and submit the Application to the Pharmacy Technician Program to the Pharmacy Technician Office, Room 111, Gym Building, John Adams Campus, by 5:00 PM Friday the first week in May.
4. Attend the individual orientation session scheduled with the Pharmacy Technician instructors to review prerequisite compliance and clinical placement requirements
5. File with the Office of Admissions and Records a completed credit application for admission to City College.

6. Take the City College of San Francisco placement test. Dates and times for this test are available at: ccsf.edu/NEW/en/student_services/matriculation_services/ged_center.html

Successful applicants are required to submit evidence of a recent tuberculin skin test or chest x-ray, proof of immunizations, and a physical examination which indicates they are in good physical health to include the following:

• 20/100 vision correctable to 20/30 in both eyes with normal color perception
• able to stand unassisted for long periods of time
• able to walk, bend, reach, lift product, and stoop frequently
• possess normal hearing or corrected hearing within the normal range
• able to manipulate stationary and mobile medical equipment

Before you apply to the program, please review the following description of the tasks, knowledge, skills, abilities and work activities that a student will need to perform in classes and assigned internship settings. The website for the Dictionary of Occupational Titles is: http://www.occupationalinfo.org/

All applicants who meet the above requirements are eligible for the program. Classroom space and clinical site placements limit the class size to 30 students, therefore, students are selected by lottery from the eligible applicants.

Background Check. A background check may be required by the assigned clinical sites. The cost of this will be incurred by the student. Students must complete this background check prior to clinical placement.

Drug Screening. Drug screening may be required by the clinical placement site. The student is responsible for this cost.

Learning Outcomes

Upon completion of the Pharmacy Technician Program, the student will be able to:

• Perform the administrative and clinical skills necessary for entry-level employment as a pharmacy technician in an institutional, community-based or hospital pharmacy
• Provide professional customer service to patients and clients in a pharmacy setting
• Apply for a license as a Pharmacy Technician to the California State Board of Pharmacy
• Successfully complete the Pharmacy Technician Certification Board National examination

Courses Required for the Certificate of Achievement in Pharmacy Technician

Course Units

First Semester
PHTC 101 Theory I ................................. 9
PHTC 102 Clinical I ................................. 3

Second Semester
PHTC 103 Theory II ................................. 9
PHTC 104 Clinical II ................................. 3

Total Units ................................................. 24

Core Courses. Both theory and clinical courses must be taken in the same semester.

Requirements for Completion. The Certificate of Achievement requires completion of 24 units. Each course must be completed with a final grade point average of 2.00 or higher.
Echocardiograms (TEE) assessment in Electrophysiology Studies (EP) Therapy (CRT), intravascular (coronary) imaging, Transesophageal methods including 3D echocardiography, Cardiac Resynchronization 301, CVT 310 (lab)

Prereq.: ECHO 101, CVT 101, ECHO 201, CVT 102, ECHO 301, CVT 310 (lab)

Review of advanced cardiac ultrasound technologies and assessment methods including 3D echocardiography, Cardiac Resynchronization Therapy (CRT), intravascular (coronary) imaging, Transesophageal Echocardiograms (TEE) assessment in Electrophysiology Studies (EP) and Strain Rate. Integration of complex formulas and use of computers for generating preliminary interpretations. CSU

CVT 101. Cardiovascular Technician (3)
Lec-3
Prereq.: ANAT 14 or 25;
Coreq.: ECHO 101, CVT 110
Cardiac anatomy and the conduction system. ECG identification and measurements, action potential curve, basic dysrhythmias, myocardial ischemia and infarction patterns, interpretation techniques of 12 lead ECGs. Holter monitor and exercise stress testing protocols, procedures, and analysis. CSU

CVT 103. Vascular Ultrasound (3)
Lec-3, field trips
Prereq.: Completion of a Cardiovascular Technology Program, ultrasound course, or echocardiography course
Repeat: max. 6 units
Arterial and peripheral vascular ultrasound will focus on the ultrasound imaging of peripheral vascular system. Content will include identifying the peripheral arterial anatomy, pathology, and ultrasound imaging and Doppler techniques used to identify vascular pathology. CSU

CVT 104. Venous Ultrasound (3)
Lec-2, conf-1, field trips
Prereq.: Completion of a Cardiovascular Technician (CVT)/Echocardiography Technician (ECHO) Program
Repeat: max. 6 units
Arterial and peripheral vascular ultrasound will focus on the ultrasound imaging of peripheral venous system. Content will include identifying the peripheral venous anatomy, pathology, and ultrasound imaging and Doppler techniques used to identify vein thrombosis and insufficiency. CSU

CVT 105. Vascular Technology - Cerebrovascular Ultrasound (3)
Lec-2, conf-1, field trips
Prereq.: CVT/ECHO Program
Repeat: max. 6 units
Cerebrovascular ultrasound will focus on the ultrasound imaging of the cerebrovascular system. Content will include identifying the normal cerebrovascular system, pathology, and ultrasound imaging techniques used to identify pathology, and Doppler findings. CSU

CVT 110. Cardiovascular Skills (7)
Lab-3, conf-6
Prereq.: ANAT 14 or 25
Coreq.: ECHO 101, CVT 101
Practice in the classroom setting and clinical locations performing and measuring ECGs, taking blood pressures, practice setting up and performing exercise stress testing. Learn technical imaging skills to perform echocardiograms and manipulate ultrasound system instrumentation. CSU

CVT 201. Advanced Cardiovascular Technician (4)
Lec-3, lab-3
Prereq.: CVT 101, ECHO 101, CVT 110
Coreq.: ECHO 201, CVT 210
Advanced complex cardiac rhythms including heart blocks, bundle branch blocks, and accessory pathways. Includes cardiac pharmacology pacemaker technology and stress echo indications: procedures and analysis. Observation and practice of ECG and stress testing in clinical locations. CSU
CVT 210. Advanced Cardiovascular Skills (7)
Lab-6, conf-5
Prereq.: CVT 101, ECHO 101, CVT 110
Coreq.: ECH 201, CVT 201
Practice in the classroom setting of exercise stress testing, ECGs, echocardiograms and stress echocardiograms. In the clinical internship, observation and participation of non-invasive cardiology procedures: ECGs, exercise stress testing, echocardiograms, stress echocardiograms, and Transesophageal Echoes (TEEs). CSU

CVT 301. Physics of Cardiac Ultrasound (3)
Lec-3, field trips
Description and analysis of ultrasound physics as applied to sound waves, transducers, two dimensional images, Doppler, ultrasound artifacts and biosafety concerns. CSU

CVT 310. Clinical Experience in Cardiac Ultrasound (9)
Lec-1, conf-3, lab-15, field trips
Principles and practices in cardiac ultrasound in neonates through adults. Integrates all aspects of ultrasound technology with identification of congenital defects and disease states. Clinical experience is designed to be concurrent with theory and will be supervised in cooperating hospitals and cardiovascular office practices. CSU

CVT 410. Clinical Experience in Advanced Cardiac Ultrasound (11)
Lec-3, conf-2, lab-24
Prereq.: ECHO 101, CVT 101, ECHO 201, ECHO 301, CVT 301, CVT 310 (lab)
Coreq.: ECHO 401
Advanced principles and practices in cardiac ultrasound in neonates through adults. Integrates all aspects of ultrasound technology with identification of congenital defects and disease states. Clinical experience is designed to be concurrent with theory and will be supervised in acute care facilities and cardiovascular office practices. CSU

EKG Technician

EKG 101. EKG Technician I (4)
Lec-3, lab-3
Prereq.: ESL 72 or 150 or eligible for ENGL 90
Patient preparation, performing and mounting of 12 lead, single channel EKG tracings. Introduction to the cardiovascular system and related terminology. Emphasis on basic rhythm identification and possible disease states. CSU

EKG 102. EKG Technician II (4)
Lec-3, lab-3
Prereq.: EKG 101
Advanced knowledge of cardiovascular system with emphasis on the heart in disease status including interpretation of advanced arrhythmias, hypertrophies, cardiac ischemia, and myocardial infarction. Patient preparation and running of appropriate EKG machines. Introduction to other non-invasive cardiology tests. CSU

Emergency Medical Technician

EMT 100. Emergency Medical Technician I (12)
Lec-5, conf-10
Coreq.: EMT 102
May be repeated.
Training in basic life support skills necessary to work on an ambulance. Includes: cardiac, respiratory, and medical emergencies; traumatic injuries; obstetrical and pediatric emergency care; and environmental injuries and CPR. Leads to EMT I certification, a prerequisite to paramedic training. CSU

EMT 101. Emergency Medical Technician (6.5)
Lec-4, conf-4
Coreq.: EMT 102
May be repeated.
Provides the theoretical knowledge and technical skills necessary for working in the emergency pre-hospital medical field. Key topics include: emergency management of victims of serious illness or injury; management of a disaster scene; and extrication of victims. CSU

EMT 101A. Emergency Medical Technician (3.25)
Lec-2, conf-2
Repeat: max. 6.5 units
Provides the theoretical knowledge and technical skills necessary for working in the emergency pre-hospital medical field. CSU

EMT 101B. Emergency Medical Technician (3.25)
Lec-2, conf-2
Prereq.: EMT 101A
Coreq.: Completion/concurrent enrollment in EMT 102
Repeat: max. 6.5 units
Provides the theoretical knowledge and technical skills necessary for working in the emergency pre-hospital medical field. Key topics include emergency management of victims of serious illness or injury, management of a disaster scene, and extrication of victims. CSU

EMT 102. EMT I - Clinical (1)
Conf-4
Coreq.: EMT 100 or 101
May be repeated.
Emergency Medical Technician I – Clinical (EMT-1 Clinical) is taught in conjunction with EMT-1 Theory (EMT 100) to train individuals in the basic life support skills necessary to work on an ambulance. Clinical skills in the course include: management of respiratory, cardiac, and environmental emergencies. This course leads to certification which is a prerequisite to paramedic training. CSU

EMT 103. EMT Refresher (1.5)
Lec-24 (total hrs); lab-8
Prereq.: Current EMT-I Certification
May be repeated as required for certification
The Emergency Medical Technician Refresher Course is required for recertification of EMT-I personnel. This course consists of didactic and skills instruction. The student will be updated in all areas of emergency medical prehospital care, as contained in the EMT-I scope of practice. CSU

EMT 104. Intermediate Skills for the EMT (4)
Lec/conf-4
Prereq.: EMT 100
Repeat: max. 8 units
Intermediate skills for the EMT I with emphasis on pre-hospital assessment and management techniques necessary for the care of patients experiencing cardiac and respiratory emergencies. Focus on ECG monitoring, operation of a defibrillator, and advanced airway management. Local and state guidelines will be discussed. CSU
**Paramedic Program**

Students must submit an application and be accepted into the Paramedic Program prior to registration.

**EMT-P 120. Paramedic Theory - Human Systems (5)**
Lec-96 (total hrs)
Prereq.: EMT 100 or EMT 101
Principles and application of the language and terminology of medicine. Overview of the structure and function of the major body systems, organization of the body, and homeostatic mechanisms. Emphasis on evaluation and documentation skills used in the delivery of emergency care. This course is for students holding current EMT certification. CSU
Formerly EMT-P 100.

**EMT-P 121. Paramedic Theory - Roles and Responsibilities (2)**
Lec-36 (total hrs), field trips
Prereq.: EMT-P 120
Overview of the emergency health care profession and the role of the paramedic within the Emergency Medical Service (EMS) system. Development of communication competency skills in the use of radio equipment and when speaking to adjunct medical staff and EMS partners. Emphasis on legal issues and medical emergency record keeping. CSU
Formerly EMT-P 101.

**EMT-P 122. Paramedic Theory - Drugs, IV, Airway (2.5)**
Lec/conf-42 (total hrs), field trips
Prereq.: EMT-P 121
Basic principles of pharmacology, drug classifications, action of drugs, clinical uses, administration of drugs, and advanced airway techniques. Emphasis on drugs and solutions used in the pre-hospital emergency environment by paramedics. CSU

**EMT-P 123. Paramedic Theory - Trauma (4)**
Lec/conf-72 (total hrs), field trips
Prereq.: EMT-P 122
Focus on evaluation, management, and procedures necessary to assist in the emergency care of victims of trauma, including management of injuries involving the musculoskeletal, nervous, digestive, genitourinary, respiratory, cardiac, and integumentary systems. Focus on multi-system injuries. CSU

**EMT-P 124. Paramedic Theory - PHTLS (1)**
Lec/conf-32 (total hrs), field trips
Prereq.: EMT-P 123
Pre-Hospital Trauma Life Support (PHTLS) certification course. CSU

**EMT-P 125. Paramedic Theory - Cardiac (4.5)**
Lec/conf-84 (total hrs), field trips
Prereq.: EMT-P 124
Prehospital evaluation and management of patients experiencing cardiac and respiratory emergencies, including monitoring and interpretation of ECGs. Comprehensive treatment through the use of advanced airway management, cardiac pharmacology, rapid defibrillation, and utilization of cardiac monitoring in the clinical setting. Advanced Cardiac Life Support Certification (ACLS). CSU
Formerly EMT-P 105.

**EMT-P 126. Paramedic Theory - Endocrine/Nervous (4)**
Lec/conf-76 (total hrs), field trips
Prereq.: EMT-P 125
Overview of the anatomy and physiology of the endocrine and nervous systems. Emphasis on pre-hospital recognition and treatment of common endocrine and neurological emergencies. Focus on care of the in-patient with neurological and endocrine disorders. CSU
Formerly EMT-P 106.

**EMT-P 127. Paramedic Theory - Special/Abdominal (5)**
Lec/conf-100 (total hrs), field trips
Prereq.: EMT-P 126
Emphasis on evaluation and in-hospital management of a patient presenting with altered mental status, non-traumatic acute abdomen, drug and alcohol abuse, poisoning, anaphylaxis, infectious disease, and environmental emergencies. CSU
Formerly EMT-P 107.

**EMT-P 128. Paramedic Theory - Repro/Pedi (4)**
Lec/conf-76 (total hrs), field trips
Prereq.: EMT-P 127
Focus on prehospital evaluation of pediatric, obstetrical, and gynecological emergencies. Emphasis on special considerations in treating a pediatric patient, including medico-legal, psychological, and emotional needs of the pediatric patient and patient's family. Instruction on Pediatric Advanced Life Support (PALS) according to the standards of the American Heart Association. Emphasis on normal childbirth in the pre-hospital and Labor and Delivery setting and pre-hospital obstetrical emergencies. Focus on gynecological injuries and diseases in the pre-hospital and clinical setting. CSU
Formerly EMT-P 108.

**EMT-P 129. Paramedic Theory - Special Systems (5)**
Lec/conf-100 (total hrs), field trips
Prereq.: EMT-P 128
Emphasis on evaluation and in hospital management of patients presenting with behavioral emergencies. Emphasis on the special medical needs of the geriatric patient. Focus on ambulance operations to include hazardous incidents. CSU
Formerly EMT-P 109.

**EMT-P 130. Paramedic - Clinical/Field Internship (12)**
Conf-60 (total hrs), lab-480 (total hrs), field trips
Prereq.: EMT-P 129
Clinical internship and field phase of paramedic training with a demonstration of advanced life support skills in a variety of emergency situations. Emphasis on clinical evaluation and intervention in the pre-hospital setting, Emergency Department, Psychiatric Emergency Services, Cardiac Intensive Care Unit, Labor and Delivery Trauma, Operating Room Anesthesia and Pediatric Clinic. CSU
Formerly EMT-P 110.

**ERT 104. Phlebotomy Technician (3.5)**
Lec-2, conf-4
Prereq.: ESL 160 or 82 or ENGL 92 or placement in ENGL 93 or 94; or ESL 170
Advis: EMT 100 or 101
Theory and skills competencies necessary to meet requirements of AB 1557 for a phlebotomy technician. Emphasis on phlebotomy techniques, equipment, medical/legal considerations, safety, infection control, specimen collection, patient preparation, labeling, handling, and preservation or fixation. CSU

**ERT 106. Introduction to Trauma Care (3)**
Lec-3
Advis: EMT 100 or 101
Evaluation and management techniques necessary in the emergency in-hospital care of victims of trauma. Emphasis on management of
injuries involving the musculoskeletal, nervous, digestive, genito-
urinary, respiratory, and integumentary systems; and multisystem
injuries. Focus on special emergency room procedures required in
the care of the injured patient. CSU

ERT 110. ERT Clinical Practice I (1)  
Lab-5  
PREREQ.: CURRENT CALIFORNIA EMT-I CERTIFICATE  
Clinical training in EMT. Focus on communication skills and working
as a member of the emergency health care team. Emphasis on basic
evaluation and management techniques for a variety of emergency
situations and assisting with routine and special examinations. CSU

ERT 115. Advanced Phlebotomy Technician (1)  
Lec-1  
Advanced Phlebotomy Technician is open to experienced phleboto-
mists with at least 1,050 hours on-the-job experience only. The course
is based upon the required curriculum mandated by Laboratory Field
to satisfy the 20 hours of advanced classroom instruction required for
the experienced phlebotomist to complete prior to taking the state cer-
tification exam in Phlebotomy. CSU

Health Care Technology

HCT 60A. Health Care Provider Refresher (1)  
Lec-1  
P/NP available  
PREREQ.: CERTIFICATE OF ACCOMPLISHMENT OR ACHIEVEMENT,
AWARD OF ACHIEVEMENT OR LICENSURE IN A HEALTH RELATED FIELD  
This class is designed as a refresher, preparation, or continuing educa-
tion course for health care professionals. The content will focus on
system-based medical terminology and disease process, CPT and ICD-
9-CM coding, medical legal issues, and medical record management
specific to the cardiovascular and gastrointestinal systems. CSU

HCT 60B. Health Care Provider Refresher (1)  
Lec-1  
P/NP available  
PREREQ.: CERTIFICATE OF ACCOMPLISHMENT OR ACHIEVEMENT,
AWARD OF ACHIEVEMENT OR LICENSURE IN A HEALTH RELATED FIELD  
This class is designed as a refresher, preparation, or continuing educa-
tion course for health care professionals. The content will focus on
system-based medical terminology and disease process, CPT and ICD-
9-CM coding, medical legal issues, and medical record management
specific to the genitourinary and endocrine systems. CSU

HCT 60C. Health Care Provider Refresher (1)  
Lec-1  
P/NP available  
PREREQ.: CERTIFICATE OF ACCOMPLISHMENT OR ACHIEVEMENT,
AWARD OF ACHIEVEMENT OR LICENSURE IN A HEALTH RELATED FIELD  
This class is designed as a refresher, preparation, or continuing educa-
tion course for health care professionals. The content will focus on
system-based medical terminology and disease process, CPT and ICD-
9-CM coding, medical legal issues, and medical record management
specific to the respiratory and integumentry systems. CSU

HCT 60D. Health Care Provider Refresher (1)  
Lec-1  
P/NP available  
PREREQ.: CERTIFICATE OF ACCOMPLISHMENT OR ACHIEVEMENT,
AWARD OF ACHIEVEMENT OR LICENSURE IN A HEALTH RELATED FIELD  
This class is designed as a refresher, preparation, or continuing educa-
tion course for health care professionals. The content will focus on
system-based medical terminology and disease process, CPT and ICD-
9-CM coding, medical legal issues, and medical record management
specific to the nervous and musculoskeletal systems. CSU

HCT 61. Introduction to Health Care (3)  
Lec-2, lab-3, field trips  
PREREQ.: ENGL 90 OR ESL 150 OR PLACEMENT IN ENGL 92 OR ESL 160  
An overview of the evolution of medicine and health care delivery.
Development and organization of health care professions, including
health information management and medical assisting. Emphasis on
inpatient, and physician office record content; numbering and filing
systems; and electronic health record adoption. CSU

HCT 66. Medical Typing and Transcription (4)  
Lec-2, lab-6  
PREREQ.: TYPING SPEED OF 40 NWPM  
Using Microsoft Office Suite software, students will prepare systems-
based and specialties-based medical correspondence and reports.
Medicolegal requirements are integrated into the preparation and cor-
rection of case histories, discharge summaries, operative reports, etc.
Students will select appropriate medical terminology and abbreviations
as they relate to specific systems and specialties. CSU

HCT 82. Professional Practice Internship/Certification (5)  
Conf-21, lab-35, work-196 (total hrs)  
P/NP Only  
PREREQ.: MED 56, 70, 71, AND HIT 50B  
REPEAT: MAX. 10 UNITS  
Supervised experience in developing a professional relationship with
patients and health care professionals in physician offices, hospitals,
and outpatient clinics focusing on professional attitudes and work-
related skills competency. Includes preparation for various certification
exams to include Certified Medical Assistant (CMA), Registered
Medical Assisting (RMA), or the Certified Professional Coder (CPC).
CSU

HCT 100. Introduction for Residential Service Providers (3)  
Lec-3  
Introduction to the principles and practices necessary to establish and
administer a residential care home for persons with developmental dis-
abilities. Emphasis is on entry into the profession, legal requirements,
and positive clinical interventions. CSU

HCT 101. Traditional Chinese Medicine (3)  
Lec-3  
PREREQ.: ENGL 90 OR ESL 160 OR 82 OR PLACEMENT IN ENGL 92 OR
ESL 170  
Traditional Chinese Medicine (TCM) fundamentals explores the
nature of health and disease processes in Traditional Chinese
Medicine. This course covers the concepts of TCM philosophy, anat-
omy, physiology, etiology, pathology, diagnosis, and treatment. CSU

HCT 102. Gateway to Health Careers (7)  
Lec-12  
Introduction to medical terminology, medical administrative and clinical
procedures, and math calculations used in health care. Emphasis on
basic knowledge and skills required for entry into the health care
profession. CSU

HCT 103. Terrorism and Health Issues (1)  
Lec-1  
Instruction on nuclear, biological, and chemical hazards and self-pre-
paredness plans to mitigate any negative health impact. Emphasis on
health consequences of various types of terrorist threats and/or actions
and appropriate health safety response. Students will also be directed
to resources that can further develop their ability to cope with domes-
tic terror events. CSU
HCT 106. Chinese Herbs and Nutrition I (3)
Lec-3, field trips
Prereq.: Completion/concurrent enrollment in HCT 101
Instruction on the preparation, tastes, entering channels, dose, functions, indications, contra-indications, and some simple combinations of 116 of the most commonly used substances in the Chinese Medicinal Pharmocopia. Class will emphasize the proper and accurate identification of the prepared substances (i.e. dried, calcined, ginger fried, honey fried, sliced, etc.) CSU

HCT 107. Everyday Chinese Medicine (3)
Lec-3
Everyday Chinese Medicine covers simple movements and manual therapies designed to enhance longevity and vitality, including 12 channels and 27 common acupuncture points. This class emphasizes the use of qi gong (movement), moxabustion, cupping, topical herbs, and massage. CSU

HCT 108. Everyday Healing Foods and Herbs (3)
Lec-3
Proper use of foods and herbs in Chinese medicine for sustaining a long and vigorous life. Students will learn to respond to each season and climate by the selection and preparation of over 30 Chinese herbs. CSU

**Health Information Technology**

HIT 50A. Medical Terminology I (3)
Lec-3
Introduction to designated medical terminology with emphasis on the anatomy, procedures, diseases and anomalies of the endocrine, male and female reproductive, gastrointestinal, and integumentary systems. Special focus on spelling, pronunciation, and definition of medical terms by their roots, prefixes, and suffixes. CSU

HIT 50B. Medical Terminology II (2)
Lec-2
Prereq.: HIT 50A
Study of terms found in case histories, discharge summaries, radiology, pathology, psychiatric, and autopsy reports; emphasis on cardiovascular, musculoskeletal, genitourinary, and respiratory systems; use of appropriate medical abbreviations and resource materials. CSU

HIT 51. Basic Medical Terminology (1)
Lec-21 (total hrs)
Introduction to the basic word structure in medical terminology. Emphasis on the roots, prefixes, and suffixes linked to systems based terminology. CSU

HIT 57. Disease Process (3)
Lec-3
Prereq.: ANAT 14
Coreq.: HIT 50A
Instructs students in the general principles of disease process with emphasis on etiologies and anatomical and physiological manifestations. The class focuses on diagnostic studies, procedures, treatments, and medications utilized in the diagnosing and treatment of diseases. CSU

HIT 63. Health Information Systems (3)
Lec-2, lab-3
Prereq.: HCT 61; HIT 50A and 67
Overview of various healthcare delivery systems with emphasis on content and documentation requirements of the health record in various health care settings such as acute, ambulatory, long term care, home health and hospice, mental health, and other practice sites. Accreditation standards, licensure, and regulations. Indexes and registers. Storage and retention of medical information. Forms design and control. CSU

HIT 65. Organization of Health Care (2)
Lec-1, lab-3
Prereq.: HCT 61; HIT 50A and 67
The study of hospital statistics and the use of health data. Collecting, processing and preparing statistical reports for health care management including various methods of presenting data. Use of computer application software in preparation of statistical reports, data bases, data sets and spreadsheets. CSU

HIT 67. Computer Applications in the Health Care Setting (2)
Lec-1, lab-3
An introduction to the various types of computer systems and their usage in health information management. Instruction will include word processing, database, spreadsheets, presentation materials, and Internet usage as they pertain to health information. Importance of data accuracy, consistency, completeness, security of information, and letter and memo presentation are emphasized. CSU

HIT 72. Legal Aspects of Health Information Technology (3)
Lec-2, lab-3
Prereq.: HIT 50B, HCT 61, and HIT 67
Importance of the medical record as a legal document and the effect of confidential communication laws on the release of medical information. Emphasis on the proper release of information from the medical record and the legal procedures involved in court disclosure of medical records. Use of the California Consent Manual. CSU

HIT 73A. Basic ICD Coding (2)
Lec-2, lab-1
Prereq.: ANAT 14
Coreq.: HIT 50A
Provides students with basic International Classification of Disease (ICD) coding principles with emphasis on inpatient and outpatient guidelines. The course focuses on book format, code conventions, Uniform Hospital Discharge Data Set (UHDDS) guidelines, document sources, code sequencing, and abstracting. CSU

HIT 73B. Advanced ICD-9-CM Coding (4)
Lec-3, lab-3
Prereq.: HIT 73A
Repeat: max. 8 units

HIT 74. Introduction to Quality Improvement (2)
Lec-1, lab-3
Prereq.: HIT 50B and 63
Evolution of continuous quality improvement in healthcare from the operational and clinical perspective. Topics include quality measurements and performance initiatives of patient outcomes, disease management, satisfaction surveys, quality measures, data sources, collection methods and measurement techniques. Use of control tools, statistical process, and benchmarking. CSU
HIT 75. Organization and Management in Health (3)
Lec-3
Prereq.: HIT 77A or HCT 82
Instruction in the introduction to the principles of organization and management functions and theories in various settings, time management and management tools, communication processes, decision making strategies, recruitment and staffing, performance reviews, disciplinary actions, motivating personnel, budget, and grievances and labor unions. CSU

HIT 76. CPT Coding (3)
Lec-3
The Current procedural terminology (CPT) coding system is used to describe services and procedures provided by health care providers to include evaluation and management, surgery, radiology, pathology, laboratory, and medicine. The class includes an overview of the HCPCs coding system and the ambulatory payment classification system. CSU

HIT 77A. Professional Practice I (3)
Conf-3, lab-6
Prereq.: HIT 63, 65, and 73A
Recommended to be taken in student’s last semester.
Designed to provide students with clinical experience in performing tasks in health information departments. Tasks include admission procedures, information retention and retrieval, data entry, chart assembly, data collection, abstracting, coding, and release of information, data quality and improvement. CSU

HIT 77B. Professional Practice II (3)
Conf-3, lab-6
Prereq.: HIT 77A
Coreq.: HIT 76
Recommended to be taken in student’s last semester.
Designed to provide students with advanced technical experience in health information departments. Tasks include admission procedures, information retention and retrieval, data entry, chart assembly, data collection, abstracting, coding, and release of information, data quality and improvement. CSU

HIT 78. Reimbursement Methods in HIT (2)
Lec-2
Prereq.: HIT 73A
Introduction to health care reimbursement systems and techniques to optimize reimbursement for third party payors. Review of uniform reporting regulations, ICD-9-CM and CPT-4 updates, case mix management, validation studies, and Peer Review Organizations. CSU

MED 49. Clinical Procedures (4)
Lec-3, conf-3
Prereq.: ANAT 14
Coreq.: HIT 50A
Advising: Placement in MATH 40 or completion of BSMA G, H, J or MATH E1
Instruction in clinical procedures to include aseptic techniques, medical instruments, charting, vital signs, patient history, sterilization and maintenance of equipment, preparation of patient, instruction in the collection of lab specimens, injections and electrocardiograms. Instruction in medical calculations, prescriptions, and commonly prescribed medications. CSU

MED 55. The Electronic Health Record (4)
Lec-3, lab-3
Structural components of the interactive electronic health record (EHR) and how it supports communication and continuity of care. Perspective on how the EHR impacts work and workflow. Practical hands-on experience utilizing an educational version of an EHR to manage patient visit information, such as examination/assessment notes and treatment plans.

MED 56. Administrative Procedures (3)
Lec-3, lab-2
Coreq.: HCT 61
Instruction in the U.S. health care environment; medicolegal and ethical responsibilities the art of communication; telephone, reception, and appointment scheduling techniques; written correspondence; processing mail and telecommunications; office managerial responsibilities; and seeking employment. CSU

MED 57. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
Comprehensive and intensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 58. Medical Bookkeeping and Insurance (1.5)
Lec-1, lab-2
Introduction to medical office financial applications. Students use medical office software to establish new accounts, post charges, payments, and adjustments to accounts, print financial activity reports, patient statements, and insurance claim forms, and schedule appointments and hospital rounds. CSU

MED 59. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3, field trips
Prereq.: MED 70
An advanced insurance billing course which concentrates on commercial insurance, Medicare, and Medicaid claims. The course focuses on specialty billing to include cardiology, OB/GYN, surgery, orthopedic, and dermatology. Students will learn how to manage capitated accounts, obtain preauthorizations and referrals, complete secondary insurance billing, and handle claim appeals and disputes. CSU

MED 60. Medical Bookkeeping and Insurance (3)
Lec-1, lab-2
Introduce students to medical office financial applications. Students use medical office software to establish new accounts, post charges, payments, and adjustments to accounts, print financial activity reports, patient statements, and insurance claim forms, and schedule appointments and hospital rounds. CSU

MED 61. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 62. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 63. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 64. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 65. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 66. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 67. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 68. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 69. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 70. Medical Bookkeeping and Insurance (3)
Lec-2, lab-3
Coreq.: HIT 76
A comprehensive study of bookkeeping and financial activities, billing, credit and collection procedures, and third party medical insurance billing. The course reviews medical terminology as it relates to insurance claims, utilizes procedure and diagnostic coding and provides practice in completing various insurance claim forms which include commercial, Medicare, Medicaid, Worker’s Compensation, and disability insurance. CSU

MED 71. Electronic Management of Financial Medical Records (1.5)
Lec-1, lab-2
Introduction to medical office financial applications. Students use medical office software to establish new accounts, post charges, payments, and adjustments to accounts, print financial activity reports, patient statements, and insurance claim forms, and schedule appointments and hospital rounds. CSU

MED 72. Advanced Insurance Billing (3)
Lec-2, lab-3, field trips
Prereq.: MED 70
An advanced insurance billing course which concentrates on commercial insurance, Medicare, and Medicaid claims. The course focuses on specialty billing to include cardiology, OB/GYN, surgery, orthopedic, and dermatology. Students will learn how to manage capitated accounts, obtain preauthorizations and referrals, complete secondary insurance billing, and handle claim appeals and disputes. CSU

MED 73. Advanced Medical Manager (2)
Lec-1, lab-2, field trips
Prereq.: MED 71
An advanced Medical Manager Software course, students will edit the support files, establish new patient accounts, post charges, payments, and adjustments to accounts, learn to format the appointment template, create and manage the recall system, produce and analyze financial activity reports, generate insurance forms and patient statements, and work with an electronic health record. CSU

Pharmacy Technician
Students must be accepted into the Pharmacy Technician Program to register in PHTC 101 and 102.
PHTC 101. Pharmacy Technician I - Theory (9)
Lec-9
Prereq.: ENGL 93 or 94 or placement in ENGL 96 and MATH 40
Coreq.: PHTC 102
Prepares students to work as technicians in pharmacies under the
direct supervision of a pharmacist. Covers drug classification and uses,
pharmacy laws, rules and regulations, storage of drugs, record keeping
of drugs, pharmacy math, basic anatomy and physiology. Emphasis is
on drug dose calculations, medical terminology, and abbreviations and
symbols used in prescriptions. CSU

PHTC 102. Pharmacy Technician I - Clinical (3)
Conf-10
Coreq.: PHTC 101
Instruction includes application of pharmaceutical knowledge, phar-
macy law, mathematics, and terminology to a clinical setting as well as
storage and labeling of drugs requirements, sterile products prepara-
tion, and computerized record keeping. CSU

PHTC 102A. Health Care Mathematics (2)
Lec-2
Introduction to mathematical calculations required for health care
professionals. Emphasis on the use of ratio and proportion method,
percentage and basic algebraic equations to determine drug dosing.
Topics include various measurement systems for calculating oral and
parenteral drug dosages. CSU

PHTC 103. Pharmacy Technician II - Theory (9)
Lec-9
Prereq.: PHTC 101 and 102
Coreq.: PHTC 104
Introduction includes advanced drug classification, uses, and side
effects, preparation of intravenous additives and chemotherapeu-
tic agents, record keeping of legend and controlled drugs, anatomy,
physiology, medical terminology, pharmacology, and pharmaceutical
calculations pharmacy law as they pertain to pharmacy practice. CSU

PHTC 104. Pharmacy Technician II - Clinical (3)
Conf-10
Coreq.: PHTC 103
Introduction includes the application of advanced drug preparation
skills to various clinical settings as well as maintaining inventory,
storage requirements, drug selection, preparation and filling of pre-
scriptions. Emphasis on quality assurance and the use of automated
technology as related to preparation of IV admixtures and chemothera-
peutic agents. CSU

Noncredit Courses:

Emergency Response Skills and Skills
for Home Care Providers

AHTC 9105. Emergency Response Skills (45 hrs)
Training in emergency response skills necessary to sustain victims of
serious illness or injury until more advanced medical assistance arrives.

AHTC 9121. Skills for Home Care Providers (25 hrs)
Training in the basic communication, health, safety, nutrition, and job
readiness skills competencies required of a health care provider.

Unit Coordinator and Medical Computing Skills

AHWC 9183. Unit Coordinator
Advises: TRST 2421
Practical skills and techniques in transcribing and processing of medi-
cal orders; maintaining chart forms; requisitioning diets, therapy,
laboratory tests, and medications; and admission and discharge of
patients. Emphasis on communication skills pertinent to patient care.

AHWC 9188. Medical Computing Skills (90 hrs)
Instruction in one or more health care software applications for stu-
dents enrolled in applicable Health Care Technology courses. These
programs include Microsoft Office Word, Delmar/Cengage Learning
SAGE MedWare™ for the Electronic Health Record, Administrative
Medical Assisting StudyWare™, Delmar/Cengage Learning RHIA/
RHIT Study Tests, Health Information Numbering and Filing,
keyboarding.

Health Education
Office: MUB 353
Phone Number: (415) 239-3220
Web Site: www.ccsf.edu/hlthed
Formerly Health Science

Announcement of Curricula

General Information
The Health Education Department is committed to promoting indi-
vidual, family and community health, advocating for social justice and
the elimination of health inequalities. The Department offers a wide
range of courses and career and technical education training programs
designed to:

- Provide students with academic training in the interdisciplinary
  field of Health Education.
- Meet Associate Degree and transfer requirements.
- Train students for careers in public health.
- Diversify the health work force.

The Department offers a Health Education Major and seven certificate
programs for students interested in health-related careers, including the:

- Community Health Worker Certificate, a 17-unit course of
  study;
- Community Mental Health Certificate, a 16-unit course of
  study;
- Drug and Alcohol Studies Certificate, a 38.5-unit course of
  study;
- Health Care Interpreter Certificate, a 15-unit course of study;
- HIV/STI Prevention Certificates, three 11-unit certificates with
  an emphasis in Outreach, Case Management and Facilitation.
- Post Prison Health Worker, a 20-unit course of study;
- Youth Worker Certificate: Organizing, Advocacy, Counseling
  and Education, a 22-unit course of study

The Department also teaches two required courses for the 15-unit
Trauma Prevention and Recovery Certificate offered through the
Interdisciplinary Studies Department.

The Department coordinates a health and social justice based transfer
program - the Merto Academy of Health - for students preparing to
transfer to four year universities to complete bachelor’s degrees in
health education, public health, urban studies, other social sciences,
Health Education Major (AS)

The Health Education Department offers a Major in Health Education designed to prepare students for transfer to the California State University (CSU) system for further study in health education, public health and related academic fields. With a Bachelor’s Degree in Health Education, students are prepared for careers with a wide range of public and private employers. The Health Education Major is open to all students who are admitted to City College of San Francisco and who have satisfied the prerequisites listed next to each course before enrolling in that course.

The purpose of CCFS’s Health Education Major is to provide students with coursework in public health content to prepare them to transfer to the California State University system in health education, public health and related academic fields. The major prepares students with an analysis of the major determinants of health and illness, in-depth health content, an overview of necessary skills in the field, including interpersonal and quantitative reasoning skills. The goal of this program is to prepare a diverse student body to address the health needs of our communities.

The 23-unit Associate of Science degree program in Health Education includes core courses related to public health and health education and a selection of electives from a variety of health-related subject areas. The course of study is designed to give flexibility to students who want to pursue specific areas of interest within health. The degree may be combined with any of the programs or certificates offered by the Department.

Core courses in the major: The major consists of 17 units of required courses. It is recommended that students take a health and wellness course (HLTH 53, 25 or 27) prior to taking Introduction to Public Health (HLTH 54) and Urban Health Policy (HLTH 231). Students interested in the major should note that the quantitative skills courses all have mathematics prerequisites and should plan their course of study accordingly.

Electives in the major: Students majoring in Health Education are required to take at least six (6) units of approved electives described below. Requirements for Bachelor’s Degrees in the Health Education or Health Science field vary widely. Students are advised to check the specific major requirements for the institution they plan to transfer to.

Prerequisites: There are no specific prerequisites for the Health Education Major except for those prerequisites and advisories required of certain classes. This includes one of the core classes in the major, Psychology 5, which requires students to take the Math Placement Test and to either place into the class or take Math 60 as a prerequisite. Some of our elective courses also have prerequisites.

Courses Required for the Major in Health Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 54 Introduction to Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 53 Health in Society</td>
<td></td>
</tr>
<tr>
<td>or HLTH 27 Men’s Health Issues</td>
<td></td>
</tr>
<tr>
<td>or HLTH 25 Women’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 231 Urban Health Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

BIO 9 Human Biology
or BIO II Intro to the Science of Living Organisms .... 4

PSYC 5 Statistics for Behavioral Sciences
or ECON 5 Introductory Statistics
or MATH 80 Probability and Statistics ................. 4

Six units must be taken from the following elective courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 10 Health and Aging</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 14 Advanced CPR and First Aid</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 30 Drugs and Society*</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 35 Holistic Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 38 ‘Trauma Response and Recovery*</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 48 Violence as Public Health Issue</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 50 Tai Chi for Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 64 Health Education and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 65 Youth Development and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 66 Health Education and Chronic Disease Management</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 68 HIV/STI Outreach Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 67 HIV/STI Prevention Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 72 Specific Populations and Addiction*</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 73 Case Management/Individual Intervention*</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 76 Group Facilitation*</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 80 Interpreting in Health Care I</td>
<td>6</td>
</tr>
<tr>
<td>HLTH 83 Motivational Counseling Skills*</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 90A Homelessness Issues</td>
<td>5</td>
</tr>
<tr>
<td>HLTH 91C Hepatitis ABC’s</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 95 Transgender Health,</td>
<td></td>
</tr>
<tr>
<td>Working with Clients &amp; Communities</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 97 Stress Reduction: Care of the Soul in the World</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 110 Health Impacts of Incarceration</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 111 Women, Incarceration and Health</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 116 Conflict Resolution Skills in the</td>
<td></td>
</tr>
<tr>
<td>Health Care Workplace</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 221 Health and Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 59 Organized Crime and Gangs: A Social,</td>
<td></td>
</tr>
<tr>
<td>Cultural and Legal Perspective</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 25 General Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, the Family, and the Community</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 100 Violence and Its Impact on Children and Their Families</td>
<td>3</td>
</tr>
<tr>
<td>IDST 17 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 79 Health and Safety in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 81 Organizing for Economic and Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>MB 12 Introduction to Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 12 Introduction to Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4 The Politics of Globalization</td>
<td>3</td>
</tr>
<tr>
<td>POLS 22 Environmental Politics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 22 or 23 Psychology of Race &amp; Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1 Introduction to Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>WOMN 54 The Politics of Sexual Violence</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>23</td>
</tr>
</tbody>
</table>

Community Health Worker and Specialty Certificates

Certificate Curricula

The Community Health Worker Program offers three linked certificates: The Community Health Worker, Post Prison Health Worker and Youth Worker Certificates. Each Certificate shares core public health foundation principals, competencies and a social justice perspective.
The curriculum is designed to prepare individuals for positions in community oriented health and social service fields. The core courses (H60, H62, H61, and H63) emphasize health education and promotion, community building and advocacy as well as competencies for working with specific communities such as immigrant and linguistically isolated communities; youth ages 13-21; and the formally incarcerated and their families. Students may earn one or more of these specialty certificates upon completion of the required courses.

The Community Health Worker (CHW), Post Prison Health Worker (PPHW) and Youth Worker (YW) Certificates share the same admission requirements, requirements for the Certificate of Accomplishment, an internship requirement, and core foundation classes.

**Admission.** Admission to the program is based on:

1. The completion of prerequisite course HLTH 59, “Introduction to Community Health Work” (1 unit), with a grade of C or higher, OR documented successful experience as a Community Health Worker.

   AND

2. Submission of a written application (Applications are due each year in May)

Any student who receives a grade less than a “C” in HLTH 60 or 62, must re-apply for admission to the program.

For more information, to request an application or a form for documenting work experience, write to Health Education Department c/o CHW Coordinator, call (415) 452-7481 or come to Cloud Hall, Room 408.

**Requirements for the Certificate of Accomplishment.** To receive the Certificate of Accomplishment, the following must be satisfied:

1. An Approved internship placement (secured during their Health 62 class or the semester before the start of the internship placement),
2. Complete 128 internship hours (for PPHW or the YW certificate, internships must be completed at a site serving their respective communities),
3. A satisfactory evaluation from the internship supervisor,
4. Completion of the certificate’s required units of course work with final grades of “C” or higher or pass.

**Note.** Students who do not complete their internship placement will have the next 2 semesters to complete their hours with prior approval from the program coordinator. Otherwise, the student must reapply for the program.

**Credit toward Graduation.** Credits earned in obtaining the Certificate of Accomplishment in Community Health Work may also be applied towards satisfaction of City College graduation requirements.

In addition, nine units from the CHW Certificate satisfy graduation requirements for a Bachelor's Degree in Health Education at San Francisco State University.

**Below you will find specific information for each certificate program.**

### Community Health Worker Certificate

The Community Health Worker (CHW) provides health education, information and referrals, and client advocacy in both clinic and community settings. The CHW serves as a two-way bridge between communities and resources. They play a vital role in reducing health disparities among underserved communities by reducing barriers to access in a culturally appropriate way.

The San Francisco Department of Public Health accepts the certificate of accomplishment to satisfy six out of twelve months of experience that is required as minimum qualification for hiring as a City Health Worker.

The CHW certificate requires successful completion of 17 units.

**Learning Outcomes**

Upon successful completion of the Community Health Worker Certificate Program, students will be able to demonstrate the following learning objectives:

1. Analyze and discuss the root causes and consequences of health disparities on local, national and global communities.
2. Research (including online research) and evaluate the quality and accuracy of health information and culturally relevant resources and services.
3. Discuss and integrate healthy professional skills including ethics, scope of practice, professional boundaries, cultural humility, conflict resolution skills and self care practices.
4. Conduct an initial interview or assessment with a client, applying a strength-based approach to assess needs, resources, priorities and proposed actions.
5. Interpret and provide non-clinical health advising on various health topics, from a client-centered perspective.
6. Demonstrate client-centered health advising upon active listening skills and motivational interviewing concepts and skills.
7. Prepare, implement and document a client-centered service coordination/case management/action plan including the provision of culturally appropriate referrals.
8. Create and facilitate a group health education training or presentation (about core competencies) using popular education theory and methods.
9. Describe and demonstrate effective group level or team work.
10. Analyze and apply community organizing skills through the Community Action Model (CAM) including an understanding of the public policy process and how to conduct a community diagnosis.
11. Construct a professional resume and portfolio showcasing employability competencies and professionalism and apply job interviewing skills as part of job readiness.

**Courses Required for the Certificate of Accomplishment in Community Health Worker**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 60* CHW Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 62* Prep for Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 61* CHW Field: Health Services</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 63* CHW Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 64 Health Ed and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Electives (see below)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

**Students must complete four units from the following list of electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 10 Health and Aging</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 20 Sexual Well Being</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 25 Women’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 26 Women’s Health: Adv Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 27 Men’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 38 Trauma Response and Recovery</td>
<td>3</td>
</tr>
</tbody>
</table>
HLTH 42 Intro to Social Marketing for Health ............. 1
HLTH 45 AIDS: The Epidemic ............................... 1
HLTH 46 Immigrant Health ................................. 3
HLTH 65 Youth Leadership in Public Health ............ 3
HLTH 66 Chronic Conditions .............................. 3
HLTH 97 Stress Reduction ................................... 3
HLTH 83 Motivational Interviewing ......................... 3
HLTH 90B Harm Reduction and Health ...................... 0.5
HLTH 110 Health Impacts of Incarceration ................. 3
HLTH 111 Women, Incarceration and Health ............... 1
HLTH 112 Promoting Wellness for Formerly Incarcerated Communities ................................... 0.5
HLTH 116 Conflict Resolution Skills ......................... 1
HLTH 117 Demystifying Health Research .................... 1
HLTH 221 Health and Social Justice ......................... 3
HLTH 231 Urban Health Policy .............................. 3
ERT 104 Intro to Phlebotomy ............................... 3.5
MED 49 Clinical Procedures .................................. 4
CDEV 67 The Child, the Family, & the Community ........ 3
WOMN 54 Politics of Sexual Violence ......................... 3
WOMN 55 Ending Sexual Violence: Peer Ed ............ 3
IDST 80-81 Diversity & Social Justice ..................... 0.5–1
ADMJ 51 Juvenile Procedures .................................. 3
ADMJ 59 Organized Crime and Gangs ....................... 3
HLTH 12 Hlth Providers Basic Life Support/First Aid or HLTH 14 Advanced First Aid and
Basic Life Support for Healthcare Providers .............. 1–2
HLTH 67 HIV/STI Prevention or HLTH 76 Group Facilitation .......................... 3
HLTH 94 Transgender Hlth: An Overview or HLTH 95 Transgender Hlth: Working with
Clients and Communities or HLTH 96 Transgender Hlth: Public
Health Strategies ............................................... 0.5–1
LERN 51 College Success Basics
or LERN 52A Specific Study Strategies
or LERN 52B Specific Study Strategies
or LERN 62 Successful Job Search Techn .......................... 0.5-1
SUPV 231 Supervision/Management
or SUPV 234 Communication for Business Mgmt ....... 3
MABS 202 PowerPoint Presentations
or MABS 391 Word Proc/Microsoft Word ................. 3

*Note: HLTH 60 and HLTH 62 are taken concurrently in the Fall.
HLTH 61 and HLTH 63 are taken concurrently in Spring.

Post-Prison Health Worker Specialty Certificate

The curriculum for this Post Prison Health Worker certificate is
designed to prepare individuals for positions working with incarcer-
ated and formerly incarcerated people in community health and social
services agencies and programs. It emphasizes specific competencies
for working with incarcerated and formerly incarcerated people such
as culturally responsive outreach, case management, client-centered
intake and counseling skills, community organizing and advocacy. As
part of their education, students will complete an internship with a
local agency serving incarcerated and/or formerly incarcerated people.
The Post Prison Health Worker Certificate requires successful com-
pletion of 20 units.

Learning Outcomes

In addition to the student learning objectives described in the
Community Health Worker Program, students completing the spe-
cialty Post Prison Health Worker Certificate Program will also be able
to demonstrate the following:

1. Describe and analyze the historical development of the U.S.
criminal justice system including; prison system conditions,
culture of prison life, the political and economic roots, and
their implications for poor communities and communities of
color.

2. Examine and summarize the health impacts of incarceration
including health inequities and common chronic diseases on
the health and well-being of families and communities.

3. Examine and identify the challenges and systemic barriers to
reentry an incarcerated person faces when re-entering society.

4. Assess and apply prevention-based models of criminal justice
that promote health and safety.

5. Define and analyze the role of Community Health Workers and
Medical Assistant in the management of chronic conditions
including application of the ecological model, concepts of
scope of practice, working as part of a clinical team and ethics.

6. Conduct culturally sensitive client-centered counseling and
document client-action plans to patients with chronic condi-
tions with special considerations for seniors and those
formerly incarcerated.

Courses Required for the Certificate of Achievement as a Post-Prison
Health Worker Certificate Program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 60* CHW Skills.</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 61* CHW Field: Health Services</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 62* Prep for Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 63* CHW Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 66 Health Education and Chronic Conditions Management</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 110 Health Impacts of Incarceration</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 112 Wellness for Formerly Incarcerated</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Students must complete three and a half (3.5) units from the following
list of electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 10 Health and Aging.</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 11A Pediatric CPR and First Aid.</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 12 Health Providers Basic Life Support</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 14 Advanced First Aid &amp; Emergency Care</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 20 Sexual Well Being</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 25 Women’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 26 Women’s Health: Advanced Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 27 Men’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 30 Drugs and Society</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 38 Trauma Response and Recovery</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 42 Intro to Social Marketing for Health</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 45 AIDS: The Epidemic</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 64 Health Education Practice</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 67 HIV/STI Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 76 Group Facilitation</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 83 Motivational Counseling Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 90A Health Worker: Homeless Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 90B Harm Reduction and Health</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 91C Hepatitis ABCs</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 97 Stress Reduction: Care of the Soul and the World</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 111 Women, Incarceration and Health</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 116 Conflict Resolution Skills in the Healthcare Work Place</td>
<td>1</td>
</tr>
</tbody>
</table>
HTLH 221 Health and Social Justice .......................... 3
ADMJ 51 Juvenile Procedures .................................. 3
ADMJ 59 Organized Crime and Gangs ....................... 3
IDST 17 Human Sexuality ..................................... 3
WOMN 54 Politics of Sexual Violence......................... 3
HLTH 94 Transgender Health: An Overview
or HLTH 95 Transgender Health: Working with Clients & Communities
or HLTH 96 Transgender Health:
Public Health Strategies ................................. 0.5-2
LERN 51 College Success Basics
or LERN 52A Specific Study Strategies
or LERN 52B Specific Study Strategies .................... 0.5-1
LERN 62 Successful Job Search Techniques ............. 1
LERN 63 Career Counseling for Work Experience ...... 1
Total Units ..................................................... 20

*Note: HLTH 60 and HLTH 62 are taken concurrently, as are HLTH 61 and HLTH 63.

Youth Worker: Organizing, Advocacy, Counseling and Education Certificate

This Youth Worker Certificate is designed to prepare individuals for positions working with youth ages 13–21 with community health and social service agencies and programs. Youth Workers provide health education client-centered counseling and case management services, and conduct community organizing and advocacy in a wide variety of employment settings. As part of their education, students will complete and internship with a local youth serving agency. The Youth Worker Certificate was developed in partnership with other CCSF departments and local employers. A second certificate based in the Child Development Department focuses on preparing individuals to work in After-School and Recreation Settings with youth of all ages and administration for those already working in the field seeking career advancement. The Youth Worker certificate requires successful completion of 22 units.

Learning Outcomes

In addition to the student learning objectives described in the Community Health Worker Program, students successfully completing the specialty Youth Worker Certificate Program will also be able to demonstrate the following:

1. Examine and analyze cultural assumptions, stereotypes, and social issues affecting today’s youth including the relationship between the health of a community and the health of the young person.
2. Describe basic adolescent and human development and its role in youth behavior and decision making.
3. Assess and describe the principles of youth development including youth empowerment with strategies for youth participation and leadership development.

Courses Required for the Certificate of Achievement as a Youth Worker.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 60* CHW Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 61* CHW Field: Health Services</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 62* Prep for Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 63* CHW Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 65 Youth Development and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, the Family, and the Community</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 116 Conflict Resolution</td>
<td>1</td>
</tr>
<tr>
<td>IDST 80-81 Diversity &amp; Social Justice</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: HLTH 60 (3 units) and HLTH 62 (2 units) are taken concurrently, as are HLTH 61 (3 units) and HLTH 63 (2 units).

Students must complete four (4) units from the following list of electives:

- HLTH 38 Trauma Response and Recovery ................. 3
- HLTH 231 Urban Health Policy ........................... 3
- HLTH 42 Intro to Social Marketing for Health .......... 1
- HLTH 46 Immigrant Health ................................. 3
- HLTH 64 Health Education Practice .................... 3
- HLTH 67 HIV/STI Prevention ............................. 3
- HLTH 68 HIV/STI Outreach Skills ....................... 3
- HLTH 76 Group Facilitation .................................. 3
- HLTH 83 Motivational Counseling Skills ................. 3
- HLTH 90B Harm Reduction and Health .................. 0.5
- HLTH 117 Demystifying Health Research ............... 1
- HLTH 221 Health and Social Justice ..................... 3
- ADMJ 51 Juvenile Procedures ............................................ 3
- ADMJ 59 Organized Crime and Gangs ..................... 3
- CDEV 53 Child Growth and Development ................ 3
- CDEV 100 Violence and Its Impact on Children and Their Families .................. 3
- CDEV 101 Introduction to Violence Intervention for Children and Their Families ................. 3
- IDST 17 Human Sexuality .......................................... 3
- IDST 18 Urban Health Policy ......................................... 3
- LERN 62 Successful Job Search Techniques ............ 1
- WOMN 54 Politics of Sexual Violence .................... 3
- WOMN 55 Ending Sexual Violence ......................... 3
- HLTH 11A Pediatric CPR and First Aid or HLTH 12 Hhth Providers
  Basic Life Support/First Aid
  or HLTH 14 Advanced First Aid and
  Basic Life Support for Healthcare Providers ........... 0.5-2
- HLTH 94 Transgender Hlth: An Overview or HLTH 95 Transgender Hlth:
  Working with Clients and Communities or HLTH 96 Transgender Hlth:
  Public Health Strategies ............................... 0.5-2
- LERN 51 College Success Basics or LERN 52A Specific Study Strategies or LERN 52B Specific Study Strategies .......... 0.5-1

Total units ................................................... 22

Community Mental Health Certificate

The curriculum for this 16 unit Community Mental Health Certificate of Accomplishment is based on the wellness and recovery model in mental health. The program trains a diverse group of front-line health workers to provide culturally responsive mental health and recovery services in San Francisco. City College of San Francisco engages in the program, mental health consumers, their family members, and other interested individuals and communities. The program is comprised of courses that promote the development of skills needed to become gainfully employed as a mental health worker and enhance the knowledge base of those already employed. As part of their education, students complete an internship with a local agency serving mental health consumers.

Admission. Admission to the program is based on:

The completion of prerequisite course HLTH 91 D, Introduction to Recovery Model in Mental Health (1 unit) with a grade of C or higher.
Requirements for the Certificate of Accomplishment. The Certificate requires the completion of 16 units. Each course must be completed with a final grade of C or higher.

Internship. Students must complete a semester long internship of at least 120 hours with an agency serving mental health consumers. Preparation and supervision for the field work experience will be provided in HLTH 104 and HLTH 105.

Credit toward Graduation. Credits earned in obtaining the Community Mental Health Worker Certificate of Accomplishment may also be applied toward satisfaction of City College graduation requirements.

Learning Outcomes

Upon successful completion of the program students will be able to demonstrate the following:

1. Summarize the impact of the social and consumer movements that have shaped the development and evolution of mental health wellness and recovery services along with related public policy.
2. Describe key functions and approaches within the recovery movement, including consumer advocacy, self-help, intensive care management, peer counseling, motivational interviewing, harm reduction, person-centered counseling, strength based approach, cultural humility, and wellness and recovery action planning.
3. Formulate criteria for, and demonstrate competency in the applied practice of screening, intake, assessment, progress notes, behavioral health counseling, wellness and recovery action planning, and appropriate referrals with culturally diverse individuals, groups, and families.
4. Plan, convene, and facilitate recovery and wellness based groups with diverse populations, including the development and presentation of educational materials.
5. Appraise the effects of family concerns, rules, roles, values, beliefs, and cultural constructs, on emotional and relation health, interpersonal behavior, wellness, and substance abuse.
6. Collaboratively support families in managing the effects of culture, environment, social systems, stigma, trauma, and human diversity in their recovery process.
7. Demonstrate proficiency in articulating medical model and wellness/recovery based terminology, concepts, and service delivery principles in multiple settings and work environments.
8. Produce reliable documentation of service delivery, apply evidence-based and community defined evidence counseling strategies, promote consumer leadership, and manage referrals and system navigation in a collaborative manner.
9. Compare and contrast the legal and ethical elements of service delivery, and summarize the expectations and responsibilities of professional conduct, field placement, multidisciplinary team practice, and supervision.
10. Assemble a professional portfolio including a resume and design it in a manner that showcases employability competencies and professionalism.

Courses Required for the Certificate of Accomplishment in Community Mental Health Worker

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 102 Helping Relationships: Recovery &amp; Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 103 Community and Group Forums</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 88 Family Systems: Theories and Practice</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 104 Internship Prep. and Professional Conduct</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 105 Internship Placement and Performance</td>
<td>3</td>
</tr>
<tr>
<td>Electives: total elective units (see below)</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</td>
</tr>
</tbody>
</table>

Students must complete at least one unit from the following list of electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 9A Elder Abuse and Prevention</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 10 Health and Aging</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 11A Pediatric CPR and First Aid</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 12 Health Providers Basic Life Support</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 13 Standard First Aid</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 14 Advanced First Aid &amp; Emergency Care</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 20 Sexual Well Being</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 25 Women’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 27 Men’s Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 38 Trauma Response and Recovery</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 45 AIDS: The Epidemic</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 46 Immigrant Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 48 Violence as a Public Health</td>
<td>3</td>
</tr>
<tr>
<td>Issue Prevention Strategies</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 65 Youth Development and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 66 Chronic Conditions</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 67 HIV/STI Prevention Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 70 Physiological Effects of Addiction</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 90A Health Worker: Homeless Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 90B Harm Reduction and Health</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 90C Trauma and Recovery: An Introduction</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 91C Hepatitis ABCs</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 94 Transgender Health: An Overview</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 95 Transgender Health: Working with Clients</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 97 Stress Reduction</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 110 Health Impacts of Incarceration</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 111 Women, Incarceration and Health</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 112 Promoting Wellness for Formerly Incarcerated Communities</td>
<td>0.5</td>
</tr>
<tr>
<td>CDEV 53 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>DSPS P Perspective on Disability Rights</td>
<td>1</td>
</tr>
<tr>
<td>DSPS S Strategies for Problem Solving</td>
<td>2</td>
</tr>
<tr>
<td>IDST 17 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>LERN 50 College Success</td>
<td>3</td>
</tr>
<tr>
<td>LERN 51 College Success Basics</td>
<td>1</td>
</tr>
<tr>
<td>LERN 60 Career Success and Life Planning</td>
<td>3</td>
</tr>
<tr>
<td>LERN 61 Orientation to Career Success</td>
<td>1</td>
</tr>
<tr>
<td>LERN 62 Successful Job Search Techniques</td>
<td>1</td>
</tr>
</tbody>
</table>

Drug and Alcohol Studies Certificate

The Drug and Alcohol Certificate is accredited by the California Association for Alcohol and Drug Educators (CAADE). The curriculum for the Certificate in Drug and Alcohol Studies is designed to prepare individuals for work in the addiction field. The program emphasizes a public health approach that addresses community, social, and individual factors of addiction while providing certificate candidates with a strong background in treatment modalities, health education and prevention, professional and ethical responsibilities, and client advocacy.

Learning Outcomes

Upon successful completion of the program students will be able to demonstrate the following:
1. Provide a historical and sociological perspective on the use, abuse, and social control of psychoactive drugs, such as the basic concepts of social, political, economic, and cultural systems and their impact on drug-taking activity.

2. Demonstrate the principles and practice of case management in addiction treatment including the processes of intake, screening, assessment, treatment planning, referral and documentation.

3. Demonstrate a working knowledge of professional and ethical code of behavior: informing clients of their confidentiality rights, mandated reporting requirements, dual relationships, Tarasoff, Transference, Counter Transference, and personal and professional boundaries.

4. Summarize the physiological processes and impacts of psychoactive drugs on clients, as well as the differences and similarities between and among physical and psychological dependency, tolerance, and withdrawal.

5. Differentiate and discuss the concepts and practices of harm reduction and cultural humility.

6. Compare and contrast the major concepts, definitions and features of co-occurring conditions associated with addiction.

7. Describe the relationships among trauma, substance use and abuse, HIV and mental health.

8. Conduct client-centered counseling drawing upon active listening and motivational interviewing skills.

9. Formulate the basic concepts of family systems theory and families impacted by substance abuse.

10. Describe, select and appropriately use strategies from culturally relevant models for group counseling with clients who abuse substances.

11. Design and provide culturally relevant formal and informal education programs.

**Courses Required for the Certificate of Achievement in Drug and Alcohol Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 30 Drugs and Society</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 70 Physiological Effects of Addiction</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 72 Cultural Aspects of Addiction</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 73 Case Mgmt/Indiv Intervention Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 74 Criminology and Addiction</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 75 Treatment Modalities</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 77 Co-occurring Disorders</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 78 Ethical Issues for Addiction Counselors</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 79A Beginning Field Work</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 79B Advanced Field Work</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 83 Motivational Counseling Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 88 Family Systems: Theories and Practice</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 90B Harm Reduction and Health</td>
<td>0.5</td>
</tr>
<tr>
<td>HLTH 103 Community and Group Forums</td>
<td>3</td>
</tr>
<tr>
<td>or HLTH 76 Group Facilitation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units ........................................... 38.5**

Courses in the Drug and Alcohol Studies Program are sequenced based on skills and information that are acquired as students move through the program. The prerequisites for each course ensure that students will be able to succeed in the target course. Below is a schedule of course offerings during the year to help you plan your completion of the program.

The following courses are offered in both the Fall and Spring semesters:
HLTH 30, 70, 72, 75, 78, 90B, 100, 103.

The following courses are typically offered in the Fall semester only:

The following courses are typically offered in the Spring semester only:
HLTH 73, 77, 79B.

In addition to the Spring and Fall semesters, HLTH 100 is frequently offered in the Summer. Please consult the current CCSF Summer Class Schedule to confirm availability.

Students cannot bring more than nine units from another school.

**Students must complete both internships through our program.**

### Health Care Interpreter Certificate

The curriculum for the 15 unit Health Care Interpreter Certificate is designed to train bilingual/bicultural students to become linguistically and culturally competent interpreters who can function effectively and efficiently in healthcare settings. Through academic preparation, practical skills training and service in community based health care settings, certificate candidates learn: a) roles and responsibilities of a health care interpreter; b) basic knowledge of common medical conditions, treatments and procedures; c) insight in language and cultural nuances for specific communities; d) application of interpreting skills in English and language of service. Both California and National Standards of Practice are included in the instruction.

**Admission requirements.** Admission is based on:

1. Proficiency in English and an additional language
2. Attendance required at orientation
3. Submission of written application distributed at orientation
4. Priority is given to those who have successfully completed at least one of the recommended courses below*  
5. Up to four different languages are offered each semester depending on number of applicants.

Any student who receives a grade less than a “C” in HLTH 80, must reapply for admission to the program in subsequent semesters.

**Requirements for the Certificate of Accomplishment.**

Each course must be completed with a grade of C or higher or Pass.

**Learning Outcomes**

Upon successful completion of the program students will be able to demonstrate the following learning outcomes:

1. Analyze the impact of various regulations and laws regarding access to healthcare for people who are Limited English Proficient (LEP) and apply these to the US healthcare system.

2. Compare and contrast ethical standards in Healthcare Interpreting as promulgated by at least two different HCI organizations such as California Healthcare Interpreting Association (CHIA) and the National Council for Interpreting in Health Care, and apply the Ethical Decision Making Process as outlined in the CHIA standards.

3. Explain the hierarchy and the nuances of interpreter roles in healthcare, and demonstrate the 4 principle roles of the interpreter in health care (message converter, message clarifier, cultural clarifier and patient advocate).

4. Differentiate between 4 modes of interpreting (consecutive, simultaneous, sight translation and summarization), and summarize when each mode is the preferable choice.
5. Analyze the subtleties, implications, and applications of various techniques used to manage the flow of communication such as the Transparency technique, the pre and post sessions, the use of 1st and 3rd person grammatical form, when interpreting from 1 language to another - and demonstrate these.

6. Contrast and/or describe cultural beliefs and practices regarding health and healthcare between the dominant (US) culture, the culture of biomedicine and the various cultures of the LEP patient communities and describe cultural gaps between providers and LEP patients of the culture that the student will be interpreting.

7. Describe anatomical features for at least 8 systems, and frequent diseases or disorders related to those systems, and Utilize 10 medical terms correctly in at least 10 different anatomical systems or health care modalities - in both English and LOS.

8. Name at least 5 different diagnostic technologies in at least two languages and be able to describe their use in the healthcare environment.

9. Differentiate between interpreting environments such as remote, face-to-face, dedicated interpreters, dual-role interpreters, and free-lance interpreters.

10. Demonstrate fluently and proficiently the ability to switch from 1 language to the other (English and LOS), using basic (non-medical) vocabulary and without the infiltration of words from the opposite language, interpreting with 95% accuracy and fluidity.

11. Develop personal learning objectives, a plan for developing and improving interpreting skills, and produce a professional resume geared towards health care job market.

12. Utilize technology in interpreting such as video conferencing equipment with confidence, and articulate the pros and cons of such technology.

Courses Required for the Certificate of Accomplishment in Health Care Interpreter

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 80 Interpreting in Health Care I</td>
<td>6</td>
</tr>
<tr>
<td>HLTH 81 Interpreting in Health Care II</td>
<td>6</td>
</tr>
<tr>
<td>HLTH 82 Field Exp in Health Care Interpreting</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*Recommended courses prior to enrollment or during the first semester:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT 51 Basic Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>ANAT 14 Intro to Human Anat and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 12 Intro to Human Physiology</td>
<td>3</td>
</tr>
</tbody>
</table>

For more information call the Health Education Department at (415) 452-5158.

HIV/STI Prevention Certificates in Specialty Skill Areas

Certificate Curricula

HIV/STI Prevention Studies offers certificates in the specialty areas of Case Management, and Facilitation. Each certificate focuses on a specific skill set supported by core curriculum in HIV and STI prevention, and health education and promotion. Graduates are qualified for employment in the HIV/STI field and work in a variety of community-based, public and private health and social service settings. In addition, these certificates have been designed to combine course work with the Community Health Worker, Drug and Alcohol Studies, and Sexual Health Educator Programs.

Admission. Open enrollment - see catalog and course schedule for information regarding pre-requisites for some courses.

Requirements for the Certificate of Accomplishment. Each certificate requires completion of 11 units. Each course must be completed with a final grade of “C” or higher or Pass.

Credit Toward Graduation. Credits earned in obtaining the HIV/STI Prevention Specialty Skill Certificates may also be applied toward satisfaction of City College graduation requirements.

HIV/STI Prevention Education Specialty Skill Certificates. Students are encouraged to combine both HIV/STI Specialty Skill Certificates as appropriate to their interests and abilities for a more complete skill set. Students are also encouraged to combine the HIV/STI Specialty Certificates with the Community Health Worker, Drug and Alcohol Studies, and/or Sexual Health Educator Certificate programs in their course of study to broaden their range of skills, knowledge, and career/employment opportunities.

Learning Outcomes

Upon successful completion of the program students will be able to demonstrate the following specific to HIV/STI and hepatitis:

1. Analyze and discuss the root causes and consequences of health disparities on local and national communities.
2. Examine and discuss the importance of cultural humility in the workplace and the use of culturally relevant prevention strategies.
3. Describe characteristics, transmission, testing options and spectrum of disease.
4. Compare and contrast behavior change theory and prevention modalities including individual, community and structural level interventions such as stages of change, harm reduction and policy advocacy.
5. Demonstrate peer counseling and health advising from a client-centered perspective.
6. Summarize the importance and relevance of issues in designing prevention activities including; sexual orientation, gender identity, drug and alcohol use, recovery, history of trauma and abuse.
7. Create and facilitate a group health education training or presentation including the development of educational materials.
8. Analyze and put into practice healthy professional skills related to ethics, scope of practice, professional boundaries, seeking supervision, and self care practices.

In addition, the following learning outcomes pertain to the specific specialty certificates:

HIV/STI Prevention Education Certificate: Case Management:

- Demonstrate the knowledge and skills for effective case management including intake, assessment, setting goals, health advising, referrals and documentation.

HIV/STI Prevention Education Certificate: Facilitation:

- Plan a community forum or group and demonstrate the knowledge and skills necessary in facilitating groups.
HIV/STI Prevention:
Case Management Skills Certificate

Courses Required for the Certificate of Accomplishment in HIV/STI Prevention: Case Management Skills

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 67 HIV/STI Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 64 Health Ed and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 73 Case Mgmt/Individual Intervention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 91C Hepatitis ABC’s</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 95 Transgender Health</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>11</td>
</tr>
</tbody>
</table>

HIV/STI Prevention:
Facilitation Skills Certificate

Courses Required for the Certificate of Accomplishment in HIV/STI Prevention: Facilitation Skills

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 67 HIV/STI Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 64 Health Ed and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 76 Group Facilitation</td>
<td>3</td>
</tr>
<tr>
<td>or HLTH 103 Community &amp; Group Facilitation</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 91C Hepatitis ABC’s</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 95 Transgender Health</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>11</td>
</tr>
</tbody>
</table>

Sexual Health Educator Certificate*

*See Women's Studies

Trauma Prevention and Recovery Certificate*

*See Interdisciplinary Studies

Child Development: Youth Worker Certificate*

*See Child Development and Family Studies

Announcement of Courses

Students enrolled in First Aid and CPR courses may be assessed a materials fee.

Credit, Non-Degree Applicable Course:

HLTH E. Successful Communication/Health Occupations (1)
Lec-3 P/NP available

Appropriate for students in Health Care Technology programs, Nursing, Vocational Nursing, Dental Assisting, Dental Lab, Radiology and Medical Imaging.

ADVICE: ESL 150 OR PLACEMENT IN 160

Practice preparation for successful communication in the allied health fields. Designed for non-native speakers.

HLTH 8. Preparation for Careers in Health (1)
Lec-1 P/NP available

A survey of career opportunities in the health field. The course also provides self-management and communication skills useful to most health careers.

Credit, Degree Applicable Courses:

HLTH 5. Community Health (4)
Lec-4, field trips

An analysis and investigation of the organization, responsibilities, functions, utilization, delivery, and dynamics of our public and private community health care systems. Current health problems, crises, and trends and human behavior patterns. Factors that control and influence the various levels of health and health care systems. A holistic approach to community health. CSU/UC

HLTH 7. Introduction to Careers in Health (2)
Lec-2 P/NP available

A survey of opportunities in health careers with special emphasis on those offered by City College of San Francisco (see Catalog). Lectures include pertinent information on various career opportunities, educational preparation, current salaries, job mobility, and advancement potential. Guest lectures from professionals in the various health careers are a major part of this course. CSU

HLTH 9A. Elder Abuse Prevention (.5)
Lec-8 (total hrs) P/NP available

Instruction in the different types of elder abuse, including physical, behavioral, and environmental indicators of elder abuse. Social aspects of aging, multicultural perspectives, and methods of prevention. CSU

HLTH 10. Health and Aging (3)
Lec-3, field trips P/NP available

Introduction to gerontology course gives broad overview of the health aspects of aging and the changes and challenges which take place in the aging process. Employs a multidisciplinary perspective, incorporating biology, psychology, sociology and health education. Uses gerontology theory and research methodology with a feminist and multicultural perspective and analysis. CSU/UC

HLTH 11A. Pediatric CPR and First Aid (0.5)
Lec-8 (total hrs) P/NP available
Repeat: max. 1.5 units

Not open to students who are enrolled in or who have completed HLTH 21 within the last two years.

Instruction in the practice of universal precautions, pediatric CPR and first aid. Emphasis on identification and care for secondary survey conditions of common traumatic, medical and environmental emergencies involving children. American Heart Association “Heartsaver Child and Infant CPR” and City College of San Francisco Pediatric First Aid cards will be awarded to those who qualify. Course fulfills the partial requirement of AB 243 mandated Health and Safety Training established by the State EMS Authority for Childcare Providers. CSU

HLTH 11B. Pediatric Preventive Health Education (0.5)
Lec-8 (total hrs) P/NP available

Instruction in the recognition and management of preventive health practices, prevention policies and injury prevention in the child care setting. Course fulfills the partial requirement of AB243 mandated Health and Safety Training established by the State EMS Authority for Childcare Providers. Qualified participants are awarded a CCSF Pediatric Prevention Health Education Training certificate of completion. CSU

HLTH 11C. First Aid Care for Ill Children (0.5)
Lec-8 (total hrs) P/NP available

Identification, transmission, control and care for common childhood illnesses and communicable diseases. Childcare first aid practices and procedures for the management of well children with mild illnesses, chronic health conditions and special needs. A City College of San Francisco First Aid Care for Ill Children certificate of attendance will be awarded to those who qualify. Course fulfills the partial continuing education requirement of the AB 243 mandated Health and
Safety Training established by the State EMS Authority for Childcare Providers. CSU

HLTH 11D. Childcare Disaster Prep. (0.5)
Lec-8 (total hrs) P/NP available
Training for childcare personnel on how to develop their own program plan for disaster management and emergency preparedness. Instruction in preparing for and effectively dealing with, and recovery from emergency and crisis situations. A City College of San Francisco Childcare Disaster Preparedness certificate of attendance will be awarded to those who qualify. Fulfills the partial continuing education requirement of the AB 243 mandated Health and Safety Training established by the State EMS Authority for Childcare Providers. CSU

HLTH 11E. Child Passenger Safety (0.5)
Lec-8 (total hrs) P/NP available
Training for students in the fields of Health and/or Child Development, childcare providers and child safety advocates on Child Passenger Safety covering the legal, practical and policy aspects of safely transporting children. Includes an overview of Child Passenger Safety regulations, appropriate selection and installation of restraint systems, resources and development of an agency child transportation policy. CSU

HLTH 12. Health Providers BLS/First Aid (1)
Lec-16 (total hrs) P/NP available
Repeat: max. 3 units
Instruction and practice in the identification and care of life threatening and serious traumatic, medical, and environmental emergencies including respiratory and cardiac emergencies for adults, children, and infants. Emphasis is also on control of life threatening emergencies such as bleeding and shock. Identification and care of serious secondary survey conditions and situations involving special populations such as children and the elderly. American Heart Association “Healthcare Provider CPR/AED” and City College of San Francisco First Aid cards will be awarded to those who qualify. CSU

HLTH 13. Standard First Aid (0.5)
Lec-8 (total hrs) P/NP available
Repeat: max. 1.5 units
Current trends in standard first aid and adult cardiopulmonary resuscitation. Emphasis also on the ability to handle life threatening injuries, the performance of a secondary survey, and activation of the emergency medical service system. American Heart Association “Heartsaver Adult CPR” and City College of San Francisco First Aid cards will be awarded to those who qualify. CSU

HLTH 14. Advanced First Aid and Basic Life Support for Healthcare Providers (2)
Lec-2 P/NP available
Satisfies requirements for public safety personnel as stated in Title 22, Division 9, California Code of Regulations.
Emergency care for one and two-rescuer adult, child, and infant CPR with mask ventilation and AED; life-threatening, medical, environmental, and traumatic emergencies such as bleeding, burns, musculoskeletal injuries; poisoning and emergency childbirth. Qualified participants are awarded American Heart Association Basic Life Support Healthcare Providers/AED and CCSF Advanced First Aid cards. CSU/UC

HLTH 15. Basic Life Support Recertification (0.5)
Lec-8 (total hrs) P/NP available
Prereq.: HLTH 12, 14 or 17, or an American Red Cross, or an American Heart Association Healthcare Provider CPR/AED course within the last two years. Valid certification card must be presented in the first hour of instruction. Repeat: max. 1.5 units
An updated presentation of the newest techniques in cardiopulmonary resuscitation with an emphasis on current trends. Instruction also on the ability to handle other types of injuries, as well as performance of a secondary survey and activation of the emergency medical services. An American Heart Association Healthcare Provider CPR/AED Recertification card will be awarded to those who qualify. CSU

HLTH 17. Public Safety - Emergency Medical Response (3)
Lec-3 P/NP available
One of four Pre-requisites for CCSF’s Fire Academy. At the conclusion of this course students will be able to: recognize a medical emergency, activate the Emergency Medical System, provide basic life support until Advanced Life Support arrives. This course meets National Highway Traffic Safety guidelines for Emergency Medical Responder 2009. CSU

HLTH 18. Community Disaster Prep. (1)
Lec-18 (total hrs) P/NP available
Training in community disaster management and emergency preparedness. Basic disaster skills instruction in utility control, identification of nonstructural hazards, hazardous materials awareness, fire extinguishing equipment and techniques, disaster medicine, search and rescue, team organization and management, and disaster psychology. A Neighborhood Response Team Training certificate of attendance will be awarded to those who qualify. CSU

HLTH 20. Sexual Well Being (2)
Lec-2 P/NP available
Investigation into the current role of sexually transmitted diseases in public and personal life. Emphasis on prevention and risk assessment and the development of skills to put this knowledge into practice; all aspects of sexually transmitted diseases including AIDS. CSU

HLTH 21. CPR, Childcare Health and Safety Education (3)
Lec-3 P/NP available
Training for childcare personnel to develop the knowledge and skills needed to provide first aid care for victims of traumatic, medical and environmental emergencies. Instruction includes Adult and Pediatric CPR, advanced level first aid, childcare health practice policies, prevention of childhood injuries, management of well children with mild illnesses, chronic health conditions and special needs. Course fulfills the AB 243 mandated Health and Safety Training requirements established by the State EMS Authority for Childcare Providers. CSU

HLTH 25. Women's Health Issues (3)
Lec-3, field trips P/NP available
Advise: ESL 150 or ENGL 90 or Placement in ESL 160 or ENGL 92
A health class emphasizing the empowerment of each woman in the pursuit of her physical, mental, spiritual, and political health. Aimed at meeting the needs of women of diverse ethnic backgrounds and sexual orientations. Topics include: breast self-exam, menstrual health, reproductive management, motherhood, AIDS and STIS, menopause, violence against women, stress, nutrition, exercise, alternative health, and more. Course work involves research on personal health concerns. CSU/UC
HLTH 26. Women's Health: Advanced Issues (3)
Lec-3, field trips P/NP available
Advise: HLTH 25, 27 or 53; and ESL 160 or ENGL 92 or Placement in ENGL 93 or 94; or ESL 170
In-depth analysis of women's health issues. Focus includes: tailoring health advice to individual needs, body image and self-esteem, stress management, alternative health practices, public policy and advocacy, emerging trends and careers in women's health, Internet research, and current controversies. CSU

HLTH 27. Men's Health Issues (3)
Lec-3 P/NP available
Advise: ESL 150 or ENGL 90 or Placement in ESL 160 or ENGL 92
This course considers the physical, psychological, social and political influences on the health of men. Its purpose is to provide a basis for men with diverse ethnic backgrounds and sexual orientations to make healthy life choices. CSU/UC

HLTH 30. Drugs and Society (3)
Lec-3, field trips P/NP available
Prereq: HLTH 100
Exploration of the nature and extent of the chemical "problem" in today's world. This course is designed to increase awareness, dispel myths and nurture critical thinking on numerous issues related to chemical use/misuse/dependency and society. CSU

HLTH 33. Introduction to Health and Wellness (2)
Lec-2
Advise: ESL 140 or Placement in ESL 150, OR Completion of OR Concurrent Enrollment in ENGL 90
Not open to students who have completed HLTH 53.
An introduction to the causes and consequences of illness and the promotion of individual, family and community health based on research in public health and other social and behavioral sciences. Examination of the causes, consequences, available treatments and strategies for prevention of major health conditions across the lifecycle. CSU/UC

HLTH 35. Holistic Health Practices (3)
Lec-3 P/NP available
A comprehensive examination and comparison of allopathic and holistic health in contemporary and future health care. An analysis and exploration of conventional methods of healing, holistic health philosophies, principles and methods of therapy, including acupuncture, acupressure, homeopathy, chiropractic, herbal medicine, and other healing systems. Includes a survey of health and healing practices among various ethnic cultures living in the United States. This is an introductory class and not intended to diagnose or treat medical problems. CSU

HLTH 38. Trauma Response and Recovery (3)
Lec-3 P/NP available
Prereq.: HLTH 25 or 27 or 30 or 48 or 60 or 64 or 67 or 100 or WOMN 54 or CDEV 100 or Demonstration of Equivalent Knowledge and/or Skills
This course is designed for students pursuing work or study in the health, justice, or social service fields. Students will review definitions of trauma, identify traumatic events, and analyze the ways in which trauma experiences affect survivors. Students will review varying approaches to recovering from traumatic events, and develop skills in supporting the recovery of others. CSU

HLTH 41. Survey and Management of Stress (1)
Lec-2 (8 wks) P/NP available
A survey of the stress process, major stressors and management of stress. An analysis of the stress experience. Exploration of many common and effective management approaches, methods and relaxation techniques. CSU

HLTH 42. Introduction to Social Marketing for Health (1)
Lec-1 P/NP available
An overview of the field of social marketing - the application of commercial marketing techniques to promote public health. Students will review concepts of social marketing, and analyze examples of local and international campaigns which use social marketing principles to promote the health of specific communities. CSU

HLTH 44. Social Marketing and Health Promotion (3)
Lec-3 P/NP available
An overview of the use of social marketing techniques to promote public health outcomes. Students will examine concepts of social marketing and analyze examples of local and international campaigns which use social marketing principles to promote the health of specific communities. CSU

HLTH 45. AIDS: The Epidemic (1)
Lec-2 (8 wks) P/NP available
Investigation of the physiological, emotional, social and cultural aspects of the AIDS epidemic with emphasis on risk assessment, prevention, and methods of coping. Includes basic biological and microbiological principles relating to AIDS. CSU

HLTH 46. Immigrant Health (3)
Lec-3 P/NP available
Students will gain an understanding of the health issues that immigrants and their communities face, including physical and mental health. The impact of policies and access to health care as determinants to immigrant health outcomes will be explored. CSU

HLTH 48. Violence as a Public Health Issue Prevention Strategies (3)
Lec-3 P/NP available
Public health perspectives to understanding the causes and consequences of violence will be examined along with strategies for violence prevention. Service-learning and preparation for working in community agencies serving at-risk and affected populations. CSU

HLTH 50. Tai Chi for Health (3)
Lec-2.5, lab-1.5 P/NP available
Tai Chi Chuan is a form of thought and physical movement that incorporates meditation into motion; emphasis on the philosophical and practical application of Tai Chi thought as it applies to human health and life; practice of basic Tai Chi Chuan forms (Yang Style). CSU/UC

HLTH 52. Critical Perspectives in Global Health (3)
Lec-3 P/NP available
Students will gain an understanding of the interconnectedness of the economic, social, cultural, political structures at play at a global level and the ways in which these structures influence public health. Through an understanding of the field of global health, students will better understand how their health is impacted locally. CSU
HLTH 53. Health Science (3)
Lec-3  P/NP available
Advise: ENGL 92 or ESL 150 or placement in ENGL 93 or 94; or ESL 160
Not open to students who have completed HLTH 33.
Critical analysis of individual and societal issues and problems involving the promotion and maintenance of a psychological, social, and physical state of well-being, based on relevant natural and social science skills and knowledge. Topics include: mental health and illness, stress management, use and abuse of drugs, including alcohol and tobacco, sexuality, birth control, pregnancy, nutrition, fitness, disease and accident prevention, consumer and environmental health and related areas, aging, and coping with death and dying. CSU/UC

HLTH 54. Introduction to Public Health (3)
Lec-3  P/NP available
This course is designed for students pursuing work or study in the health or social service fields. Students will be introduced to the basic concepts of public health and analyze the social determinants of health. Students will discuss contemporary public health challenges, focusing on the elimination of health disparities. CSU/UC

HLTH 59. Introduction to Community Health Work (1)
Lec-18 (total hrs), field trips
An introduction to the roles and function of Community Health Workers including Post Prison Health Worker and Youth Workers in the field of community health. Students will learn key public health concepts. Particular attention will be given to the social, political and economic factors that contribute to the health disparities of those communities and the roles CHWs play in helping to improve the many communities they work with including youth and those that have been formerly incarcerated. CSU

HLTH 60. CHW Skills (3)
Lec-3, field trips  P/NP available
Prereq.: Acceptance into certificate program
Coreq.: HLTH 62
Training community health workers to be an integral member of the health care delivery team to provide effective, efficient and appropriate services to underserved clients and diverse communities. Skill development will focus on health counseling and education, data collection and documentation, communication skills, case management, and giving referrals. CSU

HLTH 60A. D/A Skills (3)
Lec-3, field trips  P/NP available
Prereq.: Acceptance into certificate program
Coreq.: HLTH 62
Skill development will focus on communication skills and in techniques used for health advising, intake interviewing, data collection, documentation, and referrals. Students will practice essential intervention skills needed to work in substance abuse agencies and community settings, and develop appropriate strategies in the intake process and recording of information in the substance abuse field. CSU

HLTH 61. CHW Field: Health Services (3)
Lec-3, field trips  P/NP available
Prereq.: HLTH 60
Coreq.: HLTH 63
Exploration of the history, philosophy and development of the community health work field. Skill development will focus on advocacy, community involvement, program planning, case study analysis, and observation and reporting techniques. Overview of health delivery systems, identify new programs and careers in the emerging field of community health. CSU

HLTH 62. Prep for Field Experience (2)
Lec-2  P/NP available
Coreq.: HLTH 60
Training community health workers to be an integral member of the health care delivery team to provide effective, efficient and appropriate services to underserved clients and communities of diverse backgrounds. Developing job readiness skills and communications skills for use in a health team, preparing students to enter into their field experience as a Community Health Worker. CSU

HLTH 63. CHW Field Experience (2)
Conf-2, work-8  P/NP available
Prereq.: HLTH 61
Training community health workers to be an integral member of the health care delivery team to provide effective, efficient and appropriate services to underserved clients and diverse communities. This course provides field experience as a Community Health Worker, enabling students to practice skills learned in HLTH 61. CSU

HLTH 64. Health Education Practice (3)
Lec-3
An introduction to the principles of health education including basic theories, practices, and participatory methods with a focus on meeting the diverse needs of communities and adult learners. Application of skills and management strategies covering topics such as: HIV/AIDS, drug and alcohol use, chronic disease, and violence. CSU

HLTH 65. Youth Development and Leadership (3)
Lec-3, field trips  P/NP available
An introduction to the principles of youth development and approaches to investigating significant health issues affecting today's youth with a focus on meeting the diverse needs of community and youth learners. Strategies and skills needed for engaging and involving young people in their own decision-making and community activism. CSU

HLTH 66. Health Education and Chronic Disease Management (3)
Lec-3  P/NP available
Instruction to the epidemiology and causes and consequences of the most common chronic diseases and barriers to overcoming them. Management of chronic disease, development of essential communication skills needed in the clinical setting, and challenges to working in a team based medical environment. CSU

HLTH 67. HIV/STI Prevention (3)
Lec-3  P/NP available
Education and skills training in HIV and Sexually Transmitted Infection (STI) prevention for diverse communities. Emphasis on harm reduction and structural interventions as well as personal and community based prevention strategies. CSU

HLTH 68. HIV/STI Outreach Skills (3)
Lec-3, field trips  P/NP available
Advise: HLTH 67 or HIV/STI PREVENTION EXPERIENCE
Education and training in advanced issues in HIV/STI peer education, such as events production, in-depth analysis of STI transmission and risk reduction, and careers in public health; conduct peer education activities as members of CCSF’s Project SAFE; emphasis on putting skills into practice. CSU
HLTH 69. HIV/AIDS Peer Education: Directed Practice (3)
Lec-3, field trips P/NP available
Prereq.: HLTH 68; discuss with instructor: 2 yrs work experience in HIV/STI prevention needed to possibly waive prerequisite
Repeat: max. 9 units
Specialized education and directed practice for trained HIV/AIDS Peer Educators. Emphasis on utilizing skills in producing and participating in STI and HIV/AIDS prevention activities at CCSF and in the community, serving as mentors for beginning Peer Educators, updating information and skills. CSU

HLTH 70. Physiological Effects of Addiction (3)
Lec-3 P/NP available
Prereq.: HLTH 100
This course provides an understanding of basic physiology and pharmacology including how chemicals are metabolized, the effects of chemicals on basic nutrition and sexuality (including pregnancy), treatment implications and new medical research, the semantics of addiction, and the relationship between brain chemistry and craving. CSU

HLTH 71. Selected Topics in Addictions (1)
Lec-16 (total hrs) P/NP available
Repeat: May vary with topical courses
Investigation of current important substance abuse concerns which affect our communities, professions, and occupations. Designed to provide in-depth and intensive examination of issues affecting the substance abuse field.

HLTH 71A. Ethics and Legal Issues. CSU
HLTH 71C. Drug and Alcohol Referral Techniques. CSU

HLTH 72. Cultural Aspects of Addiction (3)
Lec-3, field trips P/NP available
Prereq.: HLTH 100
This course is a comprehensive, integral, and interdisciplinary approach in examining substance use and abuse within marginalized populations. Exploration of interrelated quality of life issues that influence and contribute to substance use and misuse. CSU

HLTH 73. Case Management/Individual Intervention (3)
Lec-3, field trips P/NP available
Prereq.: HLTH 72, 74, 75 (for Drug & Alcohol Cert. students only); HLTH 64, 67, 91C (for HIV/STI Cert. students only)
Skill development will focus on communication skills and techniques used for client-centered health advising, intake and data collection processes, documentation and referrals, with ethical considerations regarding the scopes of practice and competency for clinicians and agencies. Students will develop the skills needed to work in behavioral health agencies, including community settings, and develop appropriate strategies in a holistic process of managing cases for diverse populations. CSU

HLTH 74. Criminology and Addiction (3)
Lec-3, field trips P/NP available
Prereq.: HLTH 30, 70, and 78
A comprehensive examination of various theories of addiction and their application to incarcerated populations, men, women, and youth. An analysis and exploration of theories of incarceration, diversity, prevention of gang involvement, criminal behavior and recovery from addiction. CSU

HLTH 75. Treatment Modalities (3)
Lec-3, field trips P/NP available
Prereq.: HLTH 30, 70, 78
Exploring the differing models of treatment. Basic clinical strategies, and interventions will be analyzed and practiced. The course will focus on developing clinical interviewing, assessment and treatment planning skills, with emphasis in cultural appropriate and case conceptualization. CSU

HLTH 76. Group Facilitation (3)
Lec-3 P/NP available
Prereq.: HLTH 72 and 75 (for Drug & Alcohol Certificate students only); HLTH 64, 67, 91C (for HIV/STI Certificate students only); or demonstration of equivalent knowledge and/or skills
Introduction to group dynamics and facilitation skills for people working in the fields of addiction and HIV/STI prevention. Students will gain theoretical understanding of group facilitation concepts, observe group dynamics, experience group membership and practice learned facilitation skills. CSU

HLTH 77. Co-Occurring Disorders (3)
Lec-3, field trips P/NP available
Prereq.: HLTH 30, 70, 78,
This course will help students to identify common pre-existent or concurrent psychiatric disorders that may surface with substance use. CSU

HLTH 78. Ethical Issues for Addiction Counselors (2)
Lec-2, field trips P/NP available
Prereq.: HLTH 100
An introduction to ethical and legal issues in the addictions field. Students will develop a framework for addressing ethical and legal issues. Students will gain an understanding of laws, code of ethics and client rights. The relationship between one’s own personal values and professional behavior will be explored. CSU

HLTH 79A. Beginning Field Work (3)
Lec-3, work-8 P/NP available
Prereq.: HLTH 72, 74, and 75
Training students to acquire practical field experience in alcohol and other drugs settings. Students will work in drug and alcohol treatment programs as part of their internship requirements. CSU

HLTH 79B. Advanced Field Work (3)
Lec-3, work-8, field trips P/NP available
Prereq.: HLTH 73, 79A, 83
This course provides students with hands-on learning experiences in settings involving all aspects of the recovery process. CSU

HLTH 80. Interpreting in Health Care I (6)
Lec-6, field trips P/NP available
Training for bilingual individuals to develop awareness, knowledge, and skills necessary for effective language interpretation in health care settings. Emphasis include the roles and responsibilities of a health care interpreter, basic knowledge of common medical conditions, treatments and procedures, insight in language and cultural nuances for specific communities necessary in the art of interpretation. Students who receive a D or F grade must reapply to the HCI program. CSU
HLTH 81. Interpreting in Health Care II (6)
Lec-6, field trips P/NP available
Prereq.: HLTH 80
Training for bilingual individuals to be an integral member of the health care team in bridging the language and cultural gap between clients and providers. Further enhancement of interpreting skills learned in HLTH 80 covering specialized health care service areas such as genetics, mental health, and death and dying. Emphasis on the development of cultural competency in the community and workplace and careers in interpretation. CSU

HLTH 82. Field Experience in Health Care Interpreting (3)
Lec-3, field trips P/NP available
Coreq.: HLTH 81
Training interpreters in facilitating linguistic and cultural communication between client and health care providers. Knowledge and technical interpreting skills studied and practiced in the classroom will be applied in the field, and classroom lecture and practice including simulations. CSU

HLTH 83. Motivational Counseling Skills (3)
Lec-3 P/NP available
Prereq.: HLTH 72, 74, and 75
An examination of models and techniques used to counsel clients in addiction treatment settings with an emphasis on Motivational Counseling. CSU

HLTH 88. Family Systems: Theories and Practice (3)
Lec-3 P/NP available
Prereq.: HLTH 72 and 75
This course offers an introduction to the applied practice and theoretical principles of working with family systems in behavioral health settings. The course examines the definition and impact of family roles, rules, dynamics, and communication styles. Social systems, stigma, trauma, and chemical dependency are considered. CSU

HLTH 89A-89B-89C-89D. Independent Study (0.5-1-2-3)
Ind st-2.5, 5, 10, 15 P/NP available
Repeat: max. 2, 4, 8, 12 units
Designed to provide students an opportunity to extend their health education knowledge and practice-related skills through independent study. Student enrollment by arrangement with instructor. CSU

HLTH 90-91-92-93. Selected Topics in Health Science (0.5-1-2-3)
Lec-0.5, 1, 2, 3 P/NP available
Repeat: if no subject repeat
Investigation of current important health concerns which affect our communities, professions, and occupations. Designed to provide in-depth and intensive examination of issues affecting health and social service providers. CSU

HLTH 90A. Healthworker: Homeless Issues
HLTH 90B. Harm Reduction and Health
HLTH 90C. Trauma and Recovery: An Introduction
HLTH 90D. Brief Introduction to the Recovery Model in Mental Health

HLTH 91A. Health Education: Introductory Asthma
HLTH 91B. Hepatitis ABC’s
HLTH 91C. Recovery Model in Mental Health
HLTH 91D. Recovery Model in Mental Health
HLTH 91E. Introduction to Managing Program Data
HLTH 91F. Introduction to Grant Writing Process

HLTH 94. Transgender Health: An Overview (.5)
Lec-8 (total hrs) P/NP available
An examination of the health status and needs of transgender people. Designed to enhance the knowledge and skill of those preparing to or already working in health, public health or allied helping professions. CSU

HLTH 95. Transgender Health: Working with Clients and Communities (1)
Lec-1 P/NP available
A critical analysis of the health status of transgender people. The course will provide knowledge, skills, and resources necessary to work effectively in health and social service settings that serve transgender clients and communities. CSU

HLTH 96. Transgender Health: Public Health Strategies (2)
Lec-2 P/NP available
This course will use a public health framework to provide a critical analysis of the health status of transgender people. Students will analyze factors contributing to morbidity and mortality, as well as strategies for promoting the health of transgender clients and communities. CSU

HLTH 97. Stress Reduction: Care of the Soul and the World (3)
Lec-3, field trips P/NP available
An introduction to the theory and practice of various stress reduction and management techniques from a multicultural perspective. Includes a focus of developing the skills for self practice and designing stress reduction materials and programs for others. CSU

HLTH 100. Introduction to Drug and Alcohol Studies (1)
Lec-1, field trips P/NP available
This course provides an overview of the Drug and Alcohol counseling field and an orientation to the requirements of Health Science Department's Alcohol and Drug program. Students will identify necessary skills and potential challenges to success in the field. CSU

HLTH 102. Helping Relationships: Recovery and Wellness (3)
Lec-3 P/NP available
Prereq.: HLTH 91D
This course offers and introduction to the applied and theoretical principles of recovery, wellness, and psychosocial rehabilitation with individuals in behavioral health settings. The course emphasizes consumer-directed goal setting, collaboration, motivational interviewing, assessment, wellness and recovery action plans, documentation, systems navigation and linkage crisis management, and recovery movement policy.

HLTH 103. Community and Group Forums (3)
Lec-3
Prereq.: HLTH 91D
This course offers an introduction to community evaluation methods, action planning, community and group dynamics, and leadership and group facilitation skills. It prepares students to work in the fields of behavioral health recovery, chemical dependency, and HIV/STD prevention education.

HLTH 104. Internship Preparation and Professional Conduct in Mental Health (3)
Lec-3
Prereq.: HLTH 102
This course prepares students for internship placement in behavioral health settings. Emphasis is placed on reviewing and practicing course counseling skills, legal and ethical issues, standard documentation of service delivery, expectations and responsibilities, cultural humility,
self-care, and placement strategies including resume writing and employment interviewing skills.

**HLTH 105. Internship Placement and Performance (3)**
Lec-3  
This course mentors students through the process of completing all internship placement requirements in behavioral health settings. It prepares students to complete the community mental health certificate program and to provide services in the field of mental heath recovery.

**HLTH 110. Health Impacts of Incarceration (3)**
Lec-3  
P/NP available  
Students will gain an understanding of the health impacts of incarceration on the individual, families and communities. The impact of policies and service deliveries to formerly incarcerated people will be explored. The promotion of positive health outcomes among formerly incarcerated populations will be examined. CSU

**HLTH 111. Women, Incarceration and Health (1)**
Lec-1  
P/NP available  
Students will gain an understanding of the health impacts of incarceration on women. The promotion of positive health outcomes for formerly incarcerated women will be explored. CSU

**HLTH 112. Promoting Wellness for Formerly Incarcerated Communities (.5)**
Lec-8  
P/NP available  
Students will gain an understanding of prison culture and the specific challenges an incarcerated person faces when re-entering society. Ethical considerations along with identifying systemic barriers and rights retained by this population will be explored. CSU

**HLTH 116. Conflict Resolution Skills in the Health Care Workplace (1)**
Lec-1  
P/NP available  
Students will learn practical skills and strategies for managing conflict in the health care workplace. Theoretical models and the implications of culture and power dynamics on conflict resolution will be examined. CSU

**HLTH 117. Demystifying Health Research (1)**
Lec-1  
This course presents and overview of research basics for Community Health Workers and others concerned with promoting community health. A focus of the course will be the ethics and politics surrounding research in communities of color and the principles of research justice as a means to address health inequalities.

**HLTH 120. Health and Educational Justice (3)**
Lec-3  
Exploration of how race, class and gender impact health and education. General education skills will be applied to public health concepts. CSU

**HLTH 131. Introduction to Mental Health Wellness and the Consumer Movement (3)**
Lec-3  
This course introduce students to wellness and recovery in mental health with a focus on those with psychiatric disabilities, including social and historical background on the mental health consumer movement, relevant public policy, current practice models in psycho-social rehabilitation, and the values and approaches that contribute to recovery. CSU

**HLTH 161. San Francisco System of HIV Prevention (.5)**
Lec-8 (total hrs)  
P/NP available  
Overview of current San Francisco HIV prevention policy and practice including rationale for new directions in HIV prevention and program focus areas.

**HLTH 162. Drivers of HIV in San Francisco (.5)**
Lec-8 (total hrs)  
P/NP available  
Overview of the specific drivers linked to new HIV infection in San Francisco with a focus on substance use and specific Sexually Transmitted Infections and sexual behaviors. Discussion of the larger social contexts that influence these drivers and co-factors. Examination of current HIV prevention programming with a focus on these issues.

**HLTH 163. Prevention with Positives (.5)**
Lec-8 (total hrs)  
P/NP available  
Overview of strategies and interventions that address the specific needs of people who know they are living with HIV. This course will cover the required elements of Prevention with Positives programming in San Francisco.

**HLTH 164. HIV Prevention Messages (.5)**
Lec-8 (total hrs)  
P/NP available  
Overview of HIV prevention messages for gay men, injection drug users, and transfemales, with instruction in communication skills to convey the messages.

**HLTH 221. Health and Social Justice (3)**
Lec-3  
P/NP available  
Health inequalities in the U.S. stem from unequal living conditions. We will use case studies from the PBS film series Unnatural Causes: Is Inequality Making Us Sick? We explore how class, racism, and gender shape epidemics, and learn how to influence policy and advocate for health and social justice. CSU

**HLTH 231. Urban Health Policy (3)**
Lec-3  
P/NP available  
**Advise: ENGL 92 or ESL 160 or placement in ENGL 93 or 94, or ESL 170**  
Explore the main determinants of health and health disparities in diverse and low-income communities in the United States. Become familiar with current policy issues in urban community health and the process for influencing policy. Develop skills to serve as an effective advocate for community health. CSU/UC

**AFAM 70. African American Health Issues (3)**
Lec-3, field trips  
Major health problems in the African American community with emphasis on health promotion and disease prevention. Examines the relationships between contemporary health practice and beliefs and those of ancient African people. Social and economic issues and the impact on the delivery of health care. CSU/UC

**Noncredit Courses:**
**HLTH 5000. Adult Cardiopulmonary Resuscitation (CPR) (8 hrs)**
Adult cardiopulmonary resuscitation training for the lay rescuer who will respond to cardiac emergencies in the community setting. Course content consists of the chain of survival, early recognition and management of a victim with a heart attack, rescue breathing, one-rescuer CPR and relief of airway obstruction. An American Heart Association “Heartsaver Adult CPR” card will be awarded to those who qualify.
HLTH 5001. First Aid Care (8 hrs)
First aid training for the lay rescuer who will learn how to identify and care for victims of common traumatic, medical and environmental emergencies in the community setting. Instruction includes the performance of a secondary survey and the activation of the emergency medical services system. A City College of San Francisco First Aid card will be awarded to those who qualify.

HLTH 5010. Effective Stress Management (27 hrs)

HLTH 5018. Tai Chi for Health (36-270 hrs)
Tai Chi Chuan is a stylized form of movement that promotes both mental and physical well-being. This course is an introduction to the Chinese style of exercises known as Tai Chi Chuan, and it will teach the student Yang style Tai Chi form.

HLTH 5019. Social And Mental Health (27 hrs)
Course content identifies the impact of societal definitions of mental health on the individual, the historical development and modification of these definitions, and the integration of societal, individual, and group systems to promote mental health information.

HLTH 5020. Elder Abuse Prevention (8 hrs)
Instruction in the different types of elder abuse, including physical, behavioral, and environmental indicators of elder abuse. Social aspects of aging, multicultural perspectives, and methods of prevention.

HLTH 5024. AIDS Awareness Workshop (3 hrs)
Updates of issues relating to AIDS Awareness. Each three-hour workshop will present current information highlighting an aspect of the AIDS epidemic, such as epidemiology of emerging affected populations, particular needs of particular populations, risk reduction, harm reduction, application of models of behavior change for safer sex, documentation of behavior change, setting appropriate goals, safer sex paraphernalia, new technologies for HIV testing, the latest in AIDS treatment. Emphasis will be on continuing education needs of HIV antibody risk assessment and disclosure counselors.

HLTH 5025. Drug Use and Abuse: Cultural Issues (24 hrs)
Exploring of the historical, political and cultural context of drugs.

HLTH 5026. Drug Use and Abuse (24 hrs)
Exploration of the nature and extent of the use and abuse of drugs.

HLTH 5030. Addictive Behaviors (27 hrs)
An exploration of health psychology issues related to the psychological, developmental and social aspects of ongoing recovery of adults from addictive beliefs and behaviors. Aimed particularly at meeting the needs of women and men of ethnic and sexual diversity. Topics include: the nature of addiction, description and characteristics of different addictions across ethnic/racial and sexual minorities (gay, lesbian, and bisexuals). Treatment models for the addictive person and stages of recovery.

HLTH 5034. Anger and Conflict in Recovery (27 hrs)
Informational overview which looks at and discusses the emerging issues of anger, aggression and conflict for people in recovery from substance abuse or dependency. This course meets the needs of women and men of ethnic and sexual diversity. Course content includes understanding distortions of anger, dealing with blocks to anger, and techniques to express anger in an assertive manner.

HLTH 5036. Burn-out, Renewal and Caregivers (12 hrs)
Identifies the problems of burn-out and setting limits for people in service positions, caregivers, ACOAs, and for people involved with someone with a terminal illness.

HLTH 5037. Social and Mental Health/Gay options (27 hrs)
A forum for discussing issues of concern in the gay men’s community, presenting a variety of groups, organizations and resources from that community.

HLTH 5041. Spiritual Aspects of Recovery (27 hrs)
Exploration of health psychology issues related to the psychological, developmental and social aspects of ongoing recovery of adults from addictive behaviors.

HLTH 5042. Couples in Recovery (27 hrs)
Informational overview which looks at and discusses the impact of communication patterns and conflict on sex, love and romance for recovering couples. Meeting the needs of women and men of ethnic and sexual diversity.

HLTH 5100. Successful Communication/Health Occupations (90 hrs)
Appropriate for students in Health Care Technology programs, Nursing, Vocational Nursing, Dental Assisting, Dental Lab, Radiology and Medical Imaging.
Practical preparation for successful communication in the Allied Health Fields. Designed for non-native speakers.

HLTH 5113. Childcare Asthma Health Ed. (4 hrs)
Training for childcare personnel on how to care for children with asthma and provide a safe, healthy and supportive environment for children with asthma. A City College of San Francisco Child Care Asthma Education certificate of attendance will be awarded to those who qualify. This course fulfills the partial continuing education requirement of the AB 243 mandated Health and Safety Training established by the State EMS Authority for Child Care Providers.

HLTH 5114. Passenger Safety for Children (8 hrs)
Training for parents, caregivers, childcare personnel and other safety advocates on child passenger safety regulations, child passenger resources, the legal and practical aspects of safely transporting children, and appropriate selection and installation of restraint systems.

HLTH 5115. Disaster Prep. in Childcare (8 hrs)
Training in disaster management and emergency preparedness in the childcare setting. Instruction in the development, implementation and evaluation of a childcare disaster preparedness program. A City College of San Francisco Childcare Disaster Preparedness certificate of attendance will be awarded to those who qualify. Fulfills the partial continuing education requirement of the AB 243 mandated Health and Safety Training established by the State EMS Authority for Childcare Providers.

HLTH 5118. Neighborhood Disaster Prep. (18 hrs)
Neighborhood training in disaster management and emergency preparedness. Basic disaster skills instruction in utility control, identification of nonstructural hazards, hazardous materials awareness, fire extinguishing equipment and techniques, disaster medicine, search and rescue, team organization and management, and disaster...
psychology. A Neighborhood Response Team Training certificate of attendance will be awarded to those who qualify.

HLTH 5410. Organization of Health Services (8 hrs)
Overview of the financing and organization of health services in the United States. This course is designed for recent immigrants who have health professional training. The course will address the major functional components of the health system, including financing, health insurance, care delivery systems, the “safety net”, and issues of cost, quality and access.

HLTH 5420. Public Health and Society (8 hrs)
Introductory overview of the health and wellness in the United States. This course is designed for recent immigrants who have health professional training. Content areas include: public health; the determinants of health; American values about health and health care services; measuring health status disparities; and the history and evolution of biomedicine.

HLTH 5430. Health Professions and Practice (8 hrs)
Overview of health care practice and professional culture. This course is designed for recent immigrants who have health professional training. The course will describe the major health professions and occupations, educational pathways, the organization and culture of their practice, licensure and other regulations affecting professional practice and the delivery of health services.

HLTH 5440. Contemporary Health Issues (8 hrs)
Introductory overview of major health, health services and policy issues in the United States. This course is designed for recent immigrants who have health professional training. The course will focus on cost, quality, access and equity issues including such topics as the uninsured, health status disparities, medical errors, health care “consumers”, and public health issues. Specific attention will be paid to contemporary issues in San Francisco and California.

HLTH 5500. HIV/AIDS: Issues for Health and Social Service Professionals (8 hrs)
Overview of HIV/AIDS Issues for Health and Social Service Professionals including basic information on transmission, prevention and treatment. The focus of the course will be on psychosocial assessment and legal/ethical issues. The course is designed to meet the CEU requirement for Social Workers and other health professionals.

History
Office: Batmale 656
Phone Number: (415) 239-3330
Web Site: www.ccsf.edu/socialsci

Announcement of Courses:
Credit, Degree Applicable Courses:

HIST 1. The United States Since 1900 (3)
Lec-3
An in-depth history of the United States since 1900, with emphasis on the more important political, economic, social, artistic, and cultural aspects of American life and on the role of the United States in world affairs. CSU/UC

HIST 3A-3B. The People’s Century (3-3)
Lec-3, field trips P/NP available
This course surveys the history of our times, offering insight into the turbulent events of these 100 years. Emphasis will be placed on the social and political upheaval of the times, including war and revolution - and great expectations. Also illustrates how and why the 20th century was shaped as much by the masses and the force of the common people as by the elite and powerful. CSU/UC

HIST 4A-4B. Western Civilization (3-3)
Lec-3
HIST 4A is NOT PREREQUISITE to 4B

HIST 4A. Development of Western Civilization from ancient times through the Reformation. The emergence of civilization in the Near East; Greek and Roman contributions, development of Christianity, Byzantine influences, the Middle Ages, and the intellectual and religious changes of the Renaissance and Reformation. CSU/UC

HIST 4B. Development of Western Civilization since the Reformation and into the twentieth century. The emergence of modern Europe, overseas expansion of European civilization, great-power rivalries, the French and industrial revolutions, the consolidation of nation states, and the development of parliamentary democracy and scientific, intellectual, and cultural developments. CSU/UC

HIST 5. Europe Since 1900 (3)
Lec-3
A survey of developments since 1900 with emphasis on European and world relationships since 1914. The political-economic-social effects on Europe of the World Wars and the power blocks. The reason for current European attitudes. CSU/UC

HIST 9. Immigrants in American History (3)
Lec-3 P/NP available
Comparison of selected Asian, European and Latino groups in the United States from colonial times to the present. Students examine and compare economic, social, and cultural contributions of immigrant communities; evaluate immigration and naturalization policies; and discuss issues of acculturation and ethnic identity. Meets American Cultures requirement at U.C. Berkeley. CSU/UC

HIST 12A-12B. United States Women’s History (3-3)
Lec-3 P/NP available
HIST 12A is NOT PREREQUISITE to 12B
An in-depth study of the experiences, roles and contributions of women in the political, economic, social and cultural developments of the United States across racial, ethnic, and class lines. CSU/UC

HIST 12A. Pre-colonial period through the 1880’s.
HIST 12B. From 1890 to the present.

HIST 15A-15B. The Indian in North America (3-3)
Lec-3 P/NP available
HIST 15A is NOT PREREQUISITE to 15B
The Indian in North American history. CSU/UC

HIST 15A. Emphasis on Indians east of the Mississippi starting with the period of European colonization, continuing with the establishment of American domination and the removal policy, and ending with their participation in the Civil War.

HIST 15B. Emphasis on the life styles of Indians living west of the Mississippi and their wars in defense of their homelands. Governmental policies enacted toward the Indians during the twentieth century.
HIST 17A-17B. The United States (3-3)
Lec-3
HIST 17A IS NOT PREREQUISITE TO 17B
The history of the United States from Colonial Times to the present. A survey of the more important political, economic, social, artistic, and cultural aspects of American life as well as of the role of the United States in world affairs.

HIST 17A. Precolonial to the end of the Civil War. CSU/UC
HIST 17B. End of the Civil War to the present. CSU/UC

HIST 18A-18B. History of Latin America (3-3)
Lec-3
P/NP available
HIST 18A IS NOT PREREQUISITE TO 18B
A survey of Latin American history, institutions, culture, and art from colonial times to present. CSU/UC

HIST 20. History of Mexico (3)
Lec-3
P/NP available
A survey of the history of Mexico. Examination of indigenous, cultural, psychological, socio-economic, and artistic elements. CSU/UC

HIST 21. History of the Mexican American/Chicano (3)
Lec-3
P/NP available
Survey of historical processes undergone by the Mexican American/Chicano from pre-Conquest to the present. Social, political, economic, artistic, and cultural trends. Emphasis on the history of the United States to explain the contemporary status of Mexican American/Chicanos. CSU/UC

HIST 21. History of the Mexican American/Chicano (3)
Lec-3
P/NP available
Survey of historical processes undergone by the Mexican American/Chicano from pre-Conquest to the present. Social, political, economic, artistic, and cultural trends. Emphasis on the history of the United States to explain the contemporary status of Mexican American/Chicanos. CSU/UC

HIST 31. Introduction to the History of England (3)
Lec-3
P/NP available
English history, culture and art from Norman times to the present. CSU/UC

HIST 32. History of Russia (3)
Lec-3
P/NP available
The history of modern Russia with attention given to the religious, literary, artistic, political, and other cultural influences which shaped the country in the nineteenth century. Later emphasis is on the social and intellectual ferment leading to the Bolshevik Revolution and the subsequent development of the Soviet Union. CSU/UC

HIST 33. History of South Asia (3)
Lec-3
P/NP available
A survey of the history of India, Ceylon, and Pakistan, with emphasis on the development of modern India and its role in international affairs. CSU/UC

HIST 34. The History of Japan (3)
Lec-3
P/NP available
A survey of the history of Japan, with emphasis on the more important political, economic, social, artistic, and cultural aspects of Japanese life as well as on the development of modern Japan and its role in world affairs. CSU/UC

HIST 35A-35B. History of China (3-3)
Lec-3
P/NP available
HIST 35A IS NOT PREREQUISITE TO 35B
Intellectual, social, political, and economic development of China from ancient times to the present. Emphasis in second semester on twentieth century China, concentrating on the rise of nationalism and Communist rule on the Mainland. CSU/UC

HIST 35A. Ancient times to approximately 1900.
HIST 35B. 1900 to present.

HIST 36. History of Southeast Asia (3)
Lec-3
P/NP available
A survey of the history of Southeast Asia, with emphasis on the role of the United States in Southeast Asia. CSU/UC

HIST 37. History of the Philippines (3)
Lec-3
P/NP available
The historical and cultural growth of the Philippines, including the development of national culture, political and social institutions, and foreign relations. CSU/UC

HIST 38. The Antebellum South in American History (3)
Lec-3
P/NP available
The antebellum South; its history, system of race relations, social institutions, art, and unique culture. CSU/UC

HIST 39. The United States Presence in the Western Pacific Rim: An Introduction (3)
Lec-3
P/NP available
A survey course on the evolution of US interests, expansion and foreign policies in the Western Pacific Rim area, specifically the countries in East Asia and Southeast Asia. CSU/UC

HIST 40. California (3)
Lec-3
P/NP available
A search for meaning in the forces, events, and lives that have shaped the present-day destiny of the Golden State and the Pacific Slope, beginning with the Spanish conquistadors and the period of exploration, extending through the ‘49er era and statehood, and including present-day political, social, and economic trends. CSU/UC

HIST 41A-41B. The African American in the United States (3-3)
Lec-3
P/NP available
The political, social, artistic, and cultural history of the African American in the United States, from the African heritage to the present. CSU/UC

HIST 41A. From the African heritage through the Civil War.
HIST 41B. From the Reconstruction to the present.

HIST 42. Comparative History of Overseas Chinese (3)
Lec-3
P/NP available
The history and social organization of overseas Chinese communities in Southeast Asia, North America, and Latin America from the Eastern Han Dynasty to the present. CSU/UC

HIST 45. Lesbian and Gay American History (3)
Lec-3, field trips
P/NP available
A survey of the origins, development, and current status of the Gay, Lesbian, and Bisexual reform and liberation movements in the United States during the last two centuries, with particular emphasis since the Second World War. The lives, communities, organizations, and resistance movements created by lesbian, gay, and bisexual peoples from diverse racial, ethnic, and class backgrounds. CSU/UC

HIST 46. Independent Studies in History (1)
Ind st-5
Repeat: if no subject repeat, max. 2 units
An individualized reading or research program. CSU (UC upon review)
HIST 47A-47B-47C-47D. Discussions in History (1-1-1-1)
Lec-1  P/NP available
Lectures on varied subjects given by authorities in the field of history; discussions and field trips. CSU (UC upon review)

HIST 48. African History (3)
Lec-3  P/NP available
A survey of African history from the beginning of man to the present. Its geography, race, development of major states, art, culture, population movements, European influence, and nationalism. CSU/UC

HIST 49. History of San Francisco (3)
Lec-3, field trips  P/NP available
The growth of San Francisco from its origins as an Indian-Spanish-Mexican settlement to the metropolis of the San Francisco Bay Area. Emphasis on the role of San Francisco as the political, social, cultural, commercial, and artistic capital of the West Coast. CSU

HIST 50. United States Railroad History (3)
Lec-3, field trips  P/NP available
United States Railroad History covers the History and evolution of the railroad industry in North America, including the geographical expansion, technical advancements, sociological influences, government involvement, and economic impacts of the railroads and related businesses in the United States, Canada and Mexico. CSU

HIST 51-52-53. Selected Topics in History (1-2-3)
Lec-1,2,3  P/NP available
Repeat: if no subject repeat
Selected topics in history will be explored through lectures, discussions, film, video, and/or television leading to a critical analysis and understanding of the topic under consideration.

HIST 53A. The Civil War. CSU

Humanities
Office: Art 213
Phone Number: (415) 452-7257
Web Site: www.ccsf.edu/english

Announcement of Courses
Credit, Degree Applicable Courses:
HUM 7. Comparative Religions (3)
Lec-3, field trips  P/NP available
A survey of the religions: Hinduism, Buddhism, Taoism, Judaism, Christianity, and Islam. An analysis of the origins of these religious as well as their cultural contexts and present-day issues. CSU/UC

HUM 8. Philosophies of Religions (3)
Lec-3  P/NP available
A study of religious philosophies through a close examination of the literature of world religions. The sacred records and the lives, works, and teachings of the great teachers of world religions. CSU/UC

HUM 11. Music, Art, and Literature: Traditional Concepts (3)
Lec-3, field trips  P/NP available
An introduction to traditional concepts in the humanities embracing the visual arts, music, literature, and the cross-cultural life of the community. Development of awareness for both cultural diversity and shared concepts. Background for guided discussions and study provided through the use of recordings, readings, slides, tape recording, films, as well as field trips (on the students’ own time) to museums, concerts, and plays. CSU/UC

HUM 12. Music, Art, and Literature: Contemporary Concepts (3)
Lec-3, field trips  P/NP available
An introduction to contemporary concepts in the humanities embracing the visual arts, music, literature, and the cross-cultural life of the community. Development of awareness for both cultural diversity and shared concepts. Background for guided discussions and study provided through the use of recordings, readings, slides, tape recordings, films, as well as field trips (on the students’ own time) to museums, concerts, and plays. CSU/UC

HUM 20. Bay Area Arts (3)
Lec-3, field trips  P/NP available
Special studies in the Bay Area and how the forms of architecture, art, music, literature, and other aesthetic expressions define our regional culture and our position in the broader international field of the arts. CSU/UC

HUM 25. Women in the Arts (3)
Lec-3, field trips  P/NP available
Examination of the creative process by studying the history of women in the arts from pottery, ritual chants, and storytelling to painting, sculpture, jazz, novels, and performance art. Recognized “greats” as well as anonymous women of diverse cultural and ethnic backgrounds. Films, tapes, slides, and a field trip to complement class lectures and discussions. CSU/UC

HUM 35. North American Indian Contemporary Music, Art, and Literature (3)
Lec-3, field trips  P/NP available
A study of contemporary North American Indian literature, visual art, music, and dance. Focus on the way contemporary artists express their cultural tradition through their art works. Background for guided discussion and study provided through the use of readings, slides, tapes, films as well as field trips (on the students' own time) to museums, concerts, and dance performances. CSU/UC

HUM 41A. Western Cultural Values (3)
Lec-3, field trips  P/NP available
ADVICE: ENGL 96 or placement in ENGL 1A
The evolution of Western consciousness from Paleolithic times to the Renaissance. Emphasis on the creations of those artists and thinkers whose styles and modes of thought reflect the cultural temper of their times. CSU/UC

HUM 41B. Western Cultural Values (3)
Lec-3, field trips  P/NP available
ADVICE: ENGL 96 or placement in ENGL 1A
HUM 41A is NOT PREREQUISITE to 41B.
The evolution of Western consciousness from the Renaissance to the present. Emphasis on the creations of those artists and thinkers whose styles and modes of thought reflect the cultural temper of the times. CSU/UC

HUM 48. African American Music, Art, and Literature (3)
Lec-3
A study of significant works in African American literature, philosophy, art, and music through an examination of examples and a comparison with other cultural expressions in the United States. Readings, recordings, slides, films, and field trips (to museums, exhibits, concerts, plays, etc.) as background for guided discussions, study, and writing. CSU/UC
Announcement of Curricula

Collaborative Design Certificate

The 17-unit certificate program in Collaborative Design provides students with a strong foundation in multidisciplinary approaches to design and collaboration. Our approach offers students the collaborative skills and experiences needed for success in today’s workplace. This program will enhance a focus in any design discipline or provide an introduction to design thinking and making for all students.

Courses Required for the Certificate of Accomplishment in Collaborative Design

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSGN 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>DSGN 105 Survey of Collaborative Design</td>
<td>3</td>
</tr>
<tr>
<td>DSGN 110 Rapid Visualization</td>
<td>3</td>
</tr>
<tr>
<td>DSGN 150 Color in Design</td>
<td></td>
</tr>
<tr>
<td>Elective coursework</td>
<td>3-5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15-17</td>
</tr>
</tbody>
</table>


Diversity and Social Justice Certificate

The Diversity and Social Justice Certificate of Accomplishment is achieved through completing a series of consciousness raising courses that analyze specific forms of social oppression and evaluate social justice interventions in the United States. Addressing individual, institutional and socio-cultural elements of diversity and social justice, the certificate provides thorough diversity training for City College of San Francisco faculty, staff and students. It also serves professional development needs for employers, community based organizations and social and government agencies.

Learning Outcomes:

1. Discuss and analyze emotional defensiveness as it relates to issues of diversity and oppression, including Racism, Anti-Semitism/Anti-Arabism, Classism, Sexism, Heterosexism, Ableism, Adultism and Ageism, and Transphobia
2. Differentiate between key concepts and definitions commonly used to discuss diverse identities, various forms of oppression, and social justice interventions
3. Demonstrate an increased awareness and understanding of the destructive nature of social injustices
4. Assess examples of conscious and unconscious manifestations of social injustices, phobias and stereotypes on the individual, institutional and socio-cultural levels
5. Formulate an understanding of the privileges conferred by normative representations and material facts of race, ethnicity, religion, sexuality, gender, class, ability and age
6. Formulate an understanding of expressions of fear, collusion and internalization in relation to diversity and oppression

7. Analyze the processes of socialization that construct normativity and perpetuate social injustices
8. Evaluate information that contradicts stereotypes
9. Analyze the costs and benefits of collusion with systems of oppression
10. Analyze personal beliefs, thoughts, feelings, biases, prejudices and stereotypes
11. Identify and appraise different ways of taking action against oppressions in personal, community and institutional lives and levels
12. Evaluate social justice models of responding to oppressions
13. Explain the interactionality and interrelatedness of distinct forms of social oppression including Racism, Anti-Semitism/Anti-Arabism, Classism, Sexism, Heterosexism, Ableism, Adultism and Ageism, and Transphobia

Admission: The Diversity and Social Justice Certificate is open to any student enrolled at CCSF.

Requirements for the Certificate of Accomplishment: The certificate requires completion of a series of courses for a total of five units. Each course must be completed with a grade of C or higher, or a pass. The series can be completed in two years.

Credit Toward Graduation: Credit earned to obtain the certificate satisfies areas D1 and H2 of graduation requirements.

Credit Toward Other Certificates: In addition to counting towards the Diversity and Social Justice Certificate, courses in the IDST 80/81 series fulfill requirements for the Sexual Health Educator Certificate and the Youth Worker Certificate.

Courses Required for the Certificate of Accomplishment in Diversity and Social Justice

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDST 80A Diversity and Social Justice: Racism</td>
<td>0.5</td>
</tr>
<tr>
<td>IDST 80C Diversity and Social Justice: Sexism</td>
<td>0.5</td>
</tr>
<tr>
<td>IDST 80D: Diversity and Social Justice: Heterosexism</td>
<td>0.5</td>
</tr>
<tr>
<td>IDST 80E Diversity and Social Justice: Ableism</td>
<td>0.5</td>
</tr>
<tr>
<td>IDST 80F Diversity and Social Justice: Classism</td>
<td>0.5</td>
</tr>
<tr>
<td>IDST 80G Diversity and Social Justice: Transphobia</td>
<td>0.5</td>
</tr>
<tr>
<td>IDST 81A Diversity and Social Justice: Ageism/Adultism</td>
<td>1</td>
</tr>
<tr>
<td>IDST 81B Diversity and Social Justice: Anti-Semitism/Anti-Arabism</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>5</td>
</tr>
</tbody>
</table>

Leadership Skills for Youth Workers Certificate*

*The program is pending state approval.

Please refer to the online version of the Catalog.

Trauma Prevention and Recovery Certificate

The Trauma Prevention and Recovery Certificate of Achievement trains students as paraprofessionals to work in the field of violence prevention and trauma response, including service provision to victims and survivors of violence. It also trains service providers such as probation officers or nurses who routinely work with survivors of traumatic events to understand and respond to concerns unique to survivors.

This interdisciplinary curriculum provides students with a broad understanding of violence and its impact on diverse individuals, families, communities and societies.
This certificate program focuses on how violence affects individuals and groups, including considerations of ability/disability, age, culture, ethnicity/race, gender, gender identity/sexuality, and immigration status. Students develop skills to critically analyze social constructs that contribute to violence, listen empathically, offer appropriate referrals, and provide culturally competent peer support.

Learning Outcomes
1. Analyze the causes & consequences of diverse forms of violence and trauma on individuals and groups.
2. Access, summarize and evaluate public health research related to violence and trauma, for its application to prevention and intervention programs.
3. Compare programmatic approaches to prevention and intervention.
4. Discuss historic and aesthetic approaches to understanding violence, trauma and recovery.
5. Describe, recognize and respond to specific effects of violence on children and their families.
6. Demonstrate peer counseling and client-centered communication skills for working with victims and survivors in ways that are culturally relevant and culturally sensitive.
7. Describe available community resources and provide appropriate referrals.
8. Demonstrate knowledge and skills regarding considerations of ability/disability, age, culture, ethnicity/race, gender, gender identity, sexuality, and immigration status in relation to trauma and violence, with cultural humility and sensitivity.
9. Demonstrate self-awareness in relation to the healing process, the dynamics of vicarious trauma and the role of frontline workers.

Admission. The Trauma Prevention and Recovery Certificate program is open to any student enrolled at CCSF who meets the prerequisite requirements for each of the required courses.

Requirements for the Certificate of Achievement. The certificate requires completion of 18 units, which can be completed in two semesters. Each course must be completed with a final grade of C or higher, or Pass.

Credit toward Graduation. Credit earned to obtain the Certificate of Achievement satisfies the G1 and H2 graduation requirements, and coursework is transferable to the California State University.

Credit toward other Certificates. In addition to counting toward the Trauma Prevention & Recovery Certificate, WOMN 54 meets a requirement for the Sexual Health Educator Certificate and serves as an elective for the Community Health Worker Certificate. HLTH 38 meets a requirement for the Drug & Alcohol Certificate. CDEV 100 meets a requirement of the Violence Intervention in Early Childhood certificate.

Courses Required for the Certificate of Achievement in Trauma Prevention and Recovery

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 100 Violence &amp; Its Impact on Children and Their Families</td>
<td>3</td>
</tr>
<tr>
<td>IDST 47 Trauma &amp; The Arts:</td>
<td></td>
</tr>
<tr>
<td>An Interdisciplinary Approach</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 38 Trauma Response &amp; Recovery</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 48 Violence as a Public Health Issue Prevention Strategies</td>
<td>3</td>
</tr>
<tr>
<td>WOMN 54 The Politics of Sexual Violence</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives ............................................ 3

Total Units ........................................ 18

Elective Courses: ADMJ 59, 64; CDEV 72, 78, 101; HLTH 9A, 63, 73, 76, 83, 90C, 97, 103, 116; IDST 12, 80-81; LBCS 81; LERN 63, 68; PSYC 15, 61-62-63; SOC 51; TH A 161; WKE 197*; WOMN 20, 55
*With approval of IDST Chair

Announcement of Courses

Interdisciplinary Studies

Credit, Degree Applicable Courses:
IDST 3. Current Museum Studies (3)  Lec-3, field trips  P/NP available
Repeat: if no subject repeat
May not be offered every semester. Specific times, topics, and instructors will be announced through campus media.
This course is designed to take advantage of the cultural and educational opportunities provided through permanent and traveling exhibits in various San Francisco museums. CSU

IDST 4. Ways of Faith (3)  Lec-3  P/NP available
This interdisciplinary course introduces the scriptural, symbolic, and artistic traditions of the world’s major faiths: Hinduism, Buddhism, Taoism, Judaism, Christianity, and Islam. The class also considers how knowledge of these religious systems can serve to advance world peace. CSU/UC

IDST 6. Patterns of Problem Solving (3)  Lec-3
An introduction to patterns of reasoning in the process of problem solution and decision making. Exposure to concepts, theories and techniques in the analysis and synthesis of whole systems. Application of the tools and methods discussed to specific problems of technical, social, and personal nature. CSU

IDST 7. Introduction to the United Nations (3)  Lec-3, field trips  P/NP available
An introduction to the United Nations, including the UN Charter’s mission to achieve international peace, and the function of the organization’s six administrative bodies. In addition to studying the theory and practice of international diplomacy, students evaluate the successes and challenges of collective security, peacekeeping attempts, and technological cooperation. CSU/UC

IDST 9. Marine Biology (3)  Lec-3, field trips  P/NP available
The natural history of California marine plants and animals with emphasis on the interrelationships between marine life and their environment. CSU/UC

IDST 10D. Prejudice (3)  Lec-3
Repeat: if no subject repeat
May not be offered every semester.
This course will investigate the biological and anthropological facts about race and sex and contrast these with the sociological impact of beliefs regarding racial superiority on both majority and minority members of ethnically stratified societies. The historical “causes” of prejudice will be examined. CSU/UC
IDST 12. Reflection on Service Learning (1)
Lec-1, field trips
Coreq.: Concurrent enrollment in a course with a service-learning component (e.g., SOC 1 and 30), or current volunteer work.
Repeat: max. 3 units
Students reflect on connections made between course work, service learning experience and personal development. A learning contract is drawn up by each student. Students document their experience by developing a portfolio. Learning from the experience of service is fostered. CSU

IDST 14. American Cultures in Literature and Film (3)
Lec-3
P/NP available
Advise: ENGL 96 or placement in ENGL 1A
To find unity in diversity in the shifting trajectories of American identities and how they interrelate, the following five groups will be featured to assess their interactive contributions to the unique American mosaic: Native Americans, European Americans, African Americans, Latin Americans, and Asian Americans. Literary works of nonfiction, fiction, drama, and poetry will be supplemented with selected films to accomplish this goal. CSU/UC

IDST 17. Human Sexuality (3)
Lec-3
P/NP available
A course integrating the biological, psychological, social, anthropological, legal, historical, ethical, and humanities perspectives on human sexuality. CSU/UC

IDST 23. African American Women in the Creative Arts (3)
Lec-3
P/NP available
An intensive examination of the creative efforts of African-American women artists and writers from 1753 to the present. CSU/UC

IDST 27A-27B-27C. Asian Humanities (3-3-1)
IDST 27A is not prerequisite to 27B
No knowledge of foreign languages required
IDST 27A-27B. Asian Humanities (3-3)
Lec-3
P/NP available
Advise: ENGL 93 or 94 or placement in ENGL 96
A team-taught survey of Asian civilizations, especially Arabic-Islamic, Indian, Chinese, and Japanese cultures. Emphasis on literature, philosophy, religion, and the arts. Explanation, through an interdisciplinary and cross-cultural approach, of the differences and underlying unity of Asian cultures and a comparison with their Western counterparts. Use of the best available English translations of Asian literature along with slides, films, recordings, and field trips. CSU/UC

IDST 27C. Asian Humanities (1)
Ind st-5
P/NP available
Advise: IDST 27A or 27B
An independent study/research course under direction of one or more instructors, focusing on a specific area of study. CSU (UC upon review)

IDST 28. Current Topics and Issues in the Pacific Rim (3)
Lec-3, field trips
P/NP available
May not be offered every semester.
This course will cover at least five of the following issues: government, religion, the arts, geography and ethnic diversity, education, media, health, recreation, relationships with the United States, economics and development (including the role of tourism), recent history, sociology and anthropology. Focus of the course will alternate among countries, such as Russia, the Philippines, China, Latin America, Japan, Indonesia, India, or Pakistan. For exact information, check the Class Schedule.

IDST 28A. Current Topics in Former USSR. CSU (UC upon review)
IDST 28B. Current Topics and Issues in the Philippines. CSU (UC upon review)
IDST 28C. Current Topics and Issues in China. CSU (UC upon review)
IDST 28D. Current Topics in Latin America. CSU (UC upon review)
IDST 28E. Current Topics and Issues in Japan. CSU (UC upon review)
IDST 28F. Current Topics and Issues in Indonesia. CSU (UC upon review)
IDST 28G. Current Topics and Issues in India and Pakistan. CSU/UC

IDST 29. Introduction to Islam (3)
Lec-3, field trips
P/NP available
This study of Islam's origins, cardinal principles, and practices will cover the following and related topics: The five basic tenets of the Islamic faith; guidelines for an ethically sound life; duties and obligations of a Muslim in relation to the Creator and in relation to fellow human beings; comparison between Islam and other major religions, between Islamic cultures and other major world cultures. CSU/UC

IDST 30. Demystifying the Middle East (3)
Lec-3
P/NP available
This interdisciplinary survey of the Middle East introduces students to the cultural and religious diversity of the region, highlighting contributions in various disciplines, including science, art, music, and literature. It also examines depictions of the region and its people in Western art, literature, media, and current political discourse. CSU/UC

IDST 36. Poetry for the People (3)
Lec-3
P/NP available
An interdisciplinary poetry course which explores the poetry of African Americans, Latino(a)s, Asian Americans, and Native Americans, including poetry by incarcerated people and by poets of all sexual orientations. Use of tapes, recordings, films, poetry readings, and discussions, close readings, guest lectures and performances to 1) identify poetry that is accessible to the general community and 2) develop strategies and various media for making poetry available to diverse communities. CSU/UC

IDST 37. Racial and Ethnic Groups in the United States - A Comparative Survey (3)
Lec-3
P/NP available
An interdisciplinary survey of the history, culture, problems, and conditions of American ethnic minorities and the effects of racism, prejudice, and discrimination on emerging minority groups in the United States. CSU/UC

IDST 38. Shakespeare: “for all time” (3)
Lec-3
P/NP available
Prereq: Eligible for ENGL 1A
Advise: ENGL 92 or ESL 160 or placement in ENGL 93 or 94; or ESL 170
An interdisciplinary introduction to Shakespeare's plays as theater pieces, literature, and historical chronicles. Three instructors from the Theater Arts, English, and History departments examine Shakespeare's
artistry from their respective points of view, using some of his most popular plays. CSU/UC

**IDST 40. Introduction to Contemporary Issues in the Filipino Community** (3)
Lec-3, field trips P/NP available
Students identify and critically analyze contemporary social, political, economic, educational, and cultural issues that are important and significantly affect the life of the Filipino American community. Issues include the following areas: defining Filipino and Filipino American identity, immigration and acculturation, socioeconomic status, employment, racial and ethnic diversity, gender, political empowerment, education, and emerging patterns of the Filipino family. CSU/UC

**IDST 42. Philippine Humanities** (3)
Lec-3, field trips P/NP available
Appreciation and critical understanding of Philippine heritage in philosophy, art, music, architecture, dance, literature, theater and film. CSU/UC

**IDST 44. African Literature** (3)
Lec-3 P/NP available
An extensive examination of the composite of Africa's literary art from literature in the oral tradition and in the vernacular languages to modern literature written in vehicular languages, languages of the colonizers. Analysis of successive attitudes of the Western world toward the Black race as related by African writers from 1890 to 1960, the most important historical period in African literature south of the Sahara. CSU/UC

**IDST 45. Pacific Islanders in the United States** (3)
Lec-3, field trips P/NP available
This study of Pacific Islanders' migrations to the United States mainland includes a survey of the history, culture, and development of Hawai’i; plus Hawai’i’s role as a way station for their migration to the mainland. The indigenous cultural heritage and United States immigration experience of Pacific Islanders from Samoa, Tonga, Tahiti, Micronesia, Melanesia, Palau, New Zealand, Cook Islands, Marquesans, and the U.S. Territory of Guam will be assessed. CSU/UC

**IDST 46. Fa'a Pasefika: Interdisciplinary Cultural Expressions of Oceania** (3)
Lec-3, field trips P/NP available
A survey of traditional and contemporary art across Oceania (Pacific Islands). Emphasis on literature, dance, music, visual arts, film, and museums. From an interdisciplinary and cross-cultural approach, the course explores the underlying unity of Pacific cultures and their engagement with both western and non-western societies, colonization, and diasporic communities. CSU

**IDST 47. Trauma and the Arts: An Interdisciplinary Approach** (3)
Lec-3, field trips P/NP available
A multi-disciplinary examination of works of art, music and literature inspired by both personal and global trauma with an emphasis on the transformative power of the creative process and how it helps individuals and communities heal. CSU

**IDST 50. College Success** (3)
Lec-3 P/NP available
*Not open to students who have completed LERN 50*
A comprehensive course that integrates personal growth and values, academic study strategies, and critical and creative thinking proficiency. Life management, learning styles, personal and educational values, instructor-student relations, maintaining health, memory and concentration, lecture notetaking, textbook studying, subject-specific studying, test taking, using the library, critical analysis, problem-solving, and creative thinking. Emphasis on the attainment of life-long success in academic, professional and personal development. CSU/UC

**IDST 50 = LERN 50**

**IDST 65. Non-Profit Grants Management** (3)
Lec-3 P/NP available
Interdisciplinary instruction in management of social service and community health grants while maintaining accountability to funders, clients, affected communities, supervisors and boards of directors. How to seek funding, develop work plans, methods for tracking grant activities and expenditures, program evaluation, completing grant reports, and best approaches to communication with funders.

**IDST 70. Architecture and Diversity** (3)
Lec-3, field trips P/NP available
An introductory critical review of the building and design heritage of women all over the world and of indigenous people's architecture in Africa and Latin America from tribal dwellings to monumental structures, followed by a series of architectural and engineering studios introducing students to basic building and design skills: developing a project, drawing a floor plan, building an architectural model, using drafting tools and computers. Emphasis on hands-on skills. CSU

**IDST 80-81. Diversity and Social Justice** (.5-1)
Lec-5.1 P/NP available
A series of courses exploring specific forms of social oppression in the United States and social justice interventions. CSU

**IDST 80A. Diversity and Social Justice: Racism**
**IDST 80B. Diversity and Social Justice: Sexism**
**IDST 80C. Diversity and Social Justice: Heterosexism**
**IDST 80D. Diversity and Social Justice: Class and Classism**
**IDST 80E. Diversity and Social Justice: Ableism**
**IDST 80F. Diversity and Social Justice: Ageism and Adultism (Age-Based Oppression)**
**IDST 80G. Diversity and Social Justice: Transphobia**
**IDST 80H. Diversity and Social Justice: Anti-Semitism/Anti-Arabism**

**IDST 100A. Science through the Ages** (3)
Lec-3 P/NP available
A thematic exploration of the development of scientific thought and method throughout the world from ancient times to c. 1500. Topics will include the origins of all major branches of science as they were practiced and learned in various cultures. CSU/UC

**IDST 170. Pilgrimage: The Sacred Journey** (1)
Lec-3 (6 wks) P/NP available
This course traces the pilgrims’ journey through time to an awareness of the divine. The course content covers well-traveled pilgrim roads, saints, relics, sacred time and space, and many holy places of the world, including Rome, Jerusalem, Benares, and Mecca. The secularization of pilgrimage in the 20th century will also be included. For those students interested in history, mysticism, art history, and the great religions of the world, this course will be an enlightening experience. CSU/UC

**Multimedia Studies***

* See Graphic Communications section of the Catalog
Design

**DSGN 101. Design Fundamentals (3)**
- Lec-3, lab-3, field trips
- *Advising: ESL 150 or ENGL 92*
- Repeat: max. 6 units
  - A visual design course, covering the theories, processes, vocabulary, techniques and skills common to design disciplines. Practical application of knowledge through individual and group exercises and projects. CSU/UC

**DSGN 105. Survey of Collaborative Design (3)**
- Lec-3, field trips
  - A survey of influences and forces throughout history that drive change in design. Focus will be given to how collaborative processes lead to change. Students will research, analyze, and discuss design case studies. CSU/UC

**DSGN 110. Rapid Visualization (3)**
- Lec-3, lab-3, field trips
- *Advising: ESL 150 or ENGL 92*
- Repeat: max. 6 units
  - A free-hand drawing course for the development of visual thinkers, covering processes, methods, strategies, terminology, conventions, techniques, and skills for the rapid visualization of ideas in design. Practical application of knowledge through individual and group exercises and projects. CSU/UC

**DSGN 150. Color in Design (3)**
- Lec-3, lab-3, field trips
  - *Advising: ESL 150 or ENGL 92*
  - Repeat: max. 6 units
  - Exploration and application of the historical, cultural, symbolic, professional and personal uses of color through individual and collaborative design projects. An interdisciplinary study of the basic properties and theory of color; creating color relationships and harmonies; and optical, psychological and spatial effects of color in various media. CSU/UC

**Interior Design**

*See Architecture*

Italian

**Office:** Art 202  
**Phone Number:** (415) 239-3223  
**Web Site:** www.ccsf.edu/forlang

**Announcement of Curricula**

**Italian Major (AA)**

**Program Information.** The Italian program provides instruction in developing a student's ability to communicate in Italian, both written and oral, through the intermediate level and to gain a knowledge of Italian cultures. The program is designed to meet transfer goals as well as personal development and career growth. Students must complete the curriculum with final grades of C or higher in their major preparation.

**Degree Curriculum.** The Degree Curriculum in Italian is a two-year course of study designed to build a strong language foundation as well as expose students to Italian cultural content and some literature. Students who complete the curriculum are better prepared to transfer to the CSU and UC systems as well as other universities with the intent of majoring or minoring in Italian.

**Courses Required for the Major in Italian**

Students must complete a minimum of 15 units chosen from:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 2 or 2A+2B Cont. Elementary Italian</td>
<td>5 or 6</td>
</tr>
<tr>
<td>ITAL 3A+3B Intermediate Italian</td>
<td>6</td>
</tr>
<tr>
<td>ITAL 4A+4B Cont. of Intermediate Italian</td>
<td>6</td>
</tr>
</tbody>
</table>

An additional three (3) units must be completed from the following courses:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 1 or 1A+1B Elementary Italian</td>
<td>5 or 6</td>
</tr>
<tr>
<td>ITAL 10B Beginning Conv. Italian</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 10C Intermediate Conv. Italian</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 10D Cont. of Intermed Conv. Italian</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 15A-15B Advanced Conv. Italian</td>
<td>3–3</td>
</tr>
</tbody>
</table>

**Total Units:** 18

**Italian Certificate**

The Certificate of Accomplishment in Italian provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 units in Italian. Each course must be completed with a final grade of C or higher or Pass. At least 9 units must be selected from the core list. The remaining 6 units may be selected from the elective units.

**Courses Required for the Certificate of Accomplishment in Italian**

**Core Courses**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 1 Elementary Italian</td>
<td>5</td>
</tr>
<tr>
<td>or ITAL 1A-1B Elementary Italian</td>
<td>3–3</td>
</tr>
<tr>
<td>or ITAL 2 Continuation of Elementary Italian</td>
<td>5</td>
</tr>
<tr>
<td>or ITAL 2A-2B Continuation of Elem Italian</td>
<td>3–3</td>
</tr>
<tr>
<td>ITAL 3A-3B Intermediate Italian</td>
<td>3–3</td>
</tr>
<tr>
<td>ITAL 4A-4B Continuation of Intermediate Italian</td>
<td>3–3</td>
</tr>
</tbody>
</table>

**Elective Courses**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 10A Beginning Conversational Italian</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 10B Cont of Beg Conversational Italian</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 10C Intermediate Conversational Italian</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 10D Cont of Inter Conversational Italian</td>
<td>3</td>
</tr>
<tr>
<td>ITAL 15A, 15B Adv Conversational Italian</td>
<td>3–3</td>
</tr>
</tbody>
</table>

**Total Units:** 15

**Announcement of Courses**

Students of beginning Italian are directed to consider Italian 1, 1A and 10A.

**Credit, Degree Applicable Courses:**

**ITAL 1. Elementary Italian (5)**
- Lec-5, lab-2
- P/NP available
- *Advising: ENGL 93 or 94; or ESL 160 or placement in ENGL 96 or ESL 170 or any City College or University Foreign Language course*

Beginners course. Grammar, composition and reading. Practice in speaking and understanding Italian. CSU/UC
ITAL 1A-1B. Elementary Italian (3-3)
Lec-3, lab-2  P/NP available
Prereq.: For ITAL 1B: ITAL 1A or demonstration of ITAL 1A exit skills
ADVISE: For ITAL 1A: ENGL 93 or 94; or ESL 160 or 82 or Placement in ENGL 96 or ESL 170 or any City College or university foreign language course.
Grammar, composition and reading. Practice in speaking and understanding Italian. CSU/UC
ITAL 1A+1B = ITAL 1

ITAL 2. Continuation of Elementary Italian (5)
Lec-5, lab-2  P/NP available
Prereq.: ITAL 1 or IB or demonstration of ITAL 1/B exit skills
Second semester course. Continuation of beginner's course in grammar, composition and reading. Practice in speaking and understanding Italian. CSU/UC
ITAL 2A-2B. Continuation of Elementary Italian (3-3)
Lec-3, lab-2  P/NP available
Prereq.: For ITAL 2A: ITAL 1 or IB or demonstration of ITAL 1/B exit skills
Prereq.: For ITAL 2B: ITAL 2A or demonstration of ITAL 2A exit skills
Continuation of beginner's course. Grammar, composition, and reading and practice in speaking and understanding Italian. CSU/UC
ITAL 2A+2B = ITAL 2

ITAL 3A-3B. Intermediate Italian (3-3)
Lec-3, lab-2  P/NP available
Prereq.: ITAL 2 or 2B or demonstration of ITAL 2/2B exit skills
MAY BE TAKEN NON-SEQUENTIALLY
Review of grammar and composition; reading of cultural and literary materials. Constant practice in the use and comprehension of the spoken language. Conducted in Italian. CSU/UC
ITAL 4A-4B. Continuation of Intermediate Italian (3-3)
Lec-3, lab-2  P/NP available
Prereq.: ITAL 3A and 3B or demonstration of ITAL 3A+3B exit skills
MAY BE TAKEN NON-SEQUENTIALLY
Review of grammar with emphasis on writing; reading of cultural and/or literary materials. Constant practice in the use and comprehension of the spoken language. Conducted in Italian. CSU/UC
ITAL 10A. Beginning Conversational Italian (3)
Lec-3, lab-2  P/NP available
Not open to native speakers of Italian
Beginner's course. Intensive oral practice of basic structures and vocabulary most often used in conversation. Designed for students who wish to acquire basic skills of spoken Italian. CSU
ITAL 10B. Continuation of Beginning Conversational Italian (3)
Lec-3, lab-2  P/NP available
Prereq.: ITAL 10A or demonstration of ITAL 10A exit skills
Not open to native speakers of Italian
Second semester course. Continuation of oral practice of structures and vocabulary of spoken Italian. CSU
ITAL 10C. Intermediate Conversational Italian (3)
Lec-3, lab-2  P/NP available
Prereq.: ITAL 10B or demonstration of ITAL 10B exit skills
Not open to native speakers of Italian
Third semester course. Designed for students who wish to acquire more advanced skills in conversational Italian. CSU
ITAL 10D. Continuation of Intermediate Conversational Italian (3)
Lec-3, lab-2  P/NP available
Prereq.: ITAL 10C or demonstration of ITAL 10C exit skills
Not open to native speakers of Italian
Recommended for students enrolled in ITAL 2B or 3.
Continuation of extensive oral training in Italian. Designed for students who wish to acquire more advanced skills in conversational Italian. CSU/UC
ITAL 15A-15B. Advanced Conversational Italian (3-3)
Lec-3, lab-2  P/NP available
Prereq.: ITAL 10D or 3A+3B or demonstration of ITAL 10D or 3A+3B exit skills
ITAL 15A is not prerequisite to 15B.
Continuation of extensive oral training in Italian. Designed for students who wish to acquire more advanced skills in conversational Italian. CSU/UC
ITAL 41. Culture and Civilization of Italy (3)
Lec-3  P/NP available
The course presents the culture of Italy: The most renowned features of Italian culture in the context of its geography, social institutions, and cultural evolution. Samples of works of literature, art, and architecture by the most famous figures of each field are examined. CSU/UC

Japanese
Office: Art 202
Phone Number: (415) 239-3223
Web Site: www.ccsf.edu/forlang

Announcement of Curricula

Japanese Major (AA)

Program Information. The Japanese program provides instruction in developing a student's ability to communicate in Japanese, both written and oral, through the intermediate level and to gain a knowledge of Japanese culture. The program is designed to meet transfer goals as well as personal development and career growth. Students must complete the curriculum with final grades of C or higher in their major preparation.

Degree Curriculum. The Degree Curriculum in Japanese is a two-year course of study designed to build a strong language foundation as well as expose students to Japanese cultural content and some literature. Students who complete the curriculum are better prepared to transfer to the CSU and UC systems as well as other universities with the intent of majoring or minoring in Japanese.

Courses Required for the Major in Japanese
Students must complete a minimum of 15 units chosen from

Courses Units
JAPA 2 or 2A+2B Cont. of Elem Japanese . . . . . . . . . . 5 or 6
JAPA 3 or 3A+3B Intermediate Japanese . . . . . . . . . . 5 or 6
Japanese Certificate

The Certificate of Accomplishment in Japanese provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 units in Japanese. Each course must be completed with a final grade of C or higher or Pass. At least 9 units must be selected from the core list. The remaining 6 units may be selected from the elective units.

Courses Required for the Certificate of Accomplishment in Japanese

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPA 1 Elementary Japanese</td>
<td>5</td>
</tr>
<tr>
<td>or JAPA 1A-1B Elementary Japanese</td>
<td>3-3</td>
</tr>
<tr>
<td>JAPA 2 Continuation of Elementary Japanese</td>
<td>5</td>
</tr>
<tr>
<td>or JAPA 2A-2B Cont of Elementary Japanese</td>
<td>3-3</td>
</tr>
<tr>
<td>JAPA 3 Intermediate Japanese</td>
<td>5</td>
</tr>
<tr>
<td>or JAPA 3A-3B Intermediate Japanese</td>
<td>3-3</td>
</tr>
<tr>
<td>JAPA 4 Continuation of Intermediate Japanese</td>
<td>5</td>
</tr>
<tr>
<td>or JAPA 4A-4B Cont of Intermediate Japanese</td>
<td>3-3</td>
</tr>
<tr>
<td>JAPA 16 Beginning Kanji for Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 15

Elective Courses

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPA 10A Beginning Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10B Cont of Beg Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10C Intermediate Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10D Cont of Inter Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 39 or 49 Japanese Culture and Civilization</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 15

Announcement of Courses

Students of beginning Japanese are directed to consider JAPA 1, 1A, and 1B.

A placement test is available; call 239-3223.

Credit, Degree Applicable Courses:

JAPA 1. Elementary Japanese (5)

Lec-5, lab-2 P/NP available

Prereq.: For JAPA 1A: JAPA 1 or demonstration of JAPA 1 exit skills
Grammar, composition and reading. Practice in speaking and understanding Japanese. CSU/UC

JAPA 1A. Elementary Japanese (3)

Lec-3, lab-2 P/NP available

Advise: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170 or any City College or university foreign language course
Beginner’s course. Grammar, composition and reading. Practice in speaking and understanding simple Japanese. CSU/UC

JAPA 1B. Elementary Japanese (3)

Lec-3, lab-2 P/NP available

Prereq.: For JAPA 1B: JAPA 1A or demonstration of JAPA 1A exit skills
Grammar, composition and reading. Practice in speaking and understanding Japanese. CSU/UC

JAPA 1A + 1B = JAPA 1

JAPA 2. Continuation of Elementary Japanese (5)

Lec-5, lab-2 P/NP available

Prereq.: JAPA 1 or 1B or demonstration of JAPA 1/1B exit skills
Second semester course. Grammar, composition, reading and writing. Continued practice in speaking and understanding Japanese. CSU/UC

JAPA 2A-2B. Continuation of Elementary Japanese (3-3)

Lec-3, lab-2 P/NP available

Prereq.: For JAPA 2A: JAPA 1 or 1B or demonstration of JAPA 1/1B exit skills
Prereq.: For JAPA 2B: JAPA 2A or demonstration of JAPA 2A exit skills
Grammar, composition, reading and writing; emphasis on speaking and understanding Japanese. CSU/UC

JAPA 2A + 2B = JAPA 2

JAPA 3. Intermediate Japanese (5)

Lec-5, lab-2 P/NP available

Prereq.: JAPA 2 or 2B or demonstration of JAPA 2/2B exit skills
Third semester course. Grammar, composition, reading, and writing. Practice in speaking and understanding Japanese. CSU/UC

JAPA 3A-3B. Intermediate Japanese (3-3)

Lec-3, lab-2 P/NP available

Prereq.: For JAPA 3A: JAPA 2 or 2B or demonstration of JAPA 2/2B exit skills
Prereq.: For JAPA 3B: JAPA 3A or demonstration of JAPA 3A exit skills
Grammar, composition, reading and writing. Practice in speaking and understanding Japanese. CSU/UC

JAPA 3A + 3B = JAPA 3

JAPA 4. Continuation of Intermediate Japanese (5)

Lec-5, lab-2 P/NP available

Prereq.: JAPA 3 or 3B or demonstration of JAPA 3/3B exit skills
Fourth semester course. Grammar, reading and writing with emphasis on speaking and understanding of Japanese culture. Conducted in Japanese. CSU/UC

JAPA 4A-4B. Continuation of Intermediate Japanese (3-3)

Lec-3, lab-2 P/NP available

Prereq.: For JAPA 4A: JAPA 3 or 3B or demonstration of JAPA 3/3B exit skills
Prereq.: For JAPA 4B: JAPA 4A or demonstration of JAPA 4A exit skills
Grammar, reading and writing with emphasis on speaking and understanding of Japanese culture. Conducted in Japanese. CSU/UC

JAPA 4A + 4B = JAPA 4

JAPA 10A. Beginning Conversational Japanese (3)

Lec-3, lab-2 P/NP available

Not open to native speakers of Japanese. Open to all beginning students.
Beginner’s course. Extensive oral practice of the language. Designed for students who wish to acquire basic skills of spoken Japanese. CSU
JAPA 10B. Continuation of Beginning Conversational Japanese (3)
Lec-3, lab-2 P/NP available
Prereq.: JAPA 10A or demonstration of JAPA 10A exit skills
Not open to native speakers of Japanese
Second semester course. Continuation of oral practice of structure and vocabulary of spoken Japanese. CSU

JAPA 10C. Intermediate Conversational Japanese (3)
Lec-3, lab-2 P/NP available
Prereq.: JAPA 10B or demonstration of JAPA 10B exit skills
Not open to native speakers of Japanese
Third semester course. Designed for students who wish to continue acquiring more advanced skills in conversational Japanese. CSU

JAPA 10D. Intermediate Conversational Japanese (3)
Lec-3, lab-2 P/NP available
Prereq.: JAPA 10C or demonstration of JAPA 10C exit skills
Not open to native speakers of Japanese
Fourth semester course. Designed for students who wish to continue acquiring more advanced skills in conversational Japanese. CSU

JAPA 16. Beginning Kanji for Reading and Writing (3)
Lec-3 P/NP available
Prereq.: JAPA 1 or 1B or demonstration of JAPA 1/1B exit skills
Intensive study of elementary Kanji characters to increase competence in reading and writing Japanese and in understanding authentic materials. CSU

JAPA 17. Continuation Beginning Kanji for Reading and Writing (3)
Lec-3 P/NP available
Prereq.: Satisfactory completion of JAPA 16 or equivalent
Intensive study of second level of Kanji characters to increase competence in reading and writing Japanese and in understanding authentic materials. CSU

JAPA 18. Intermediate Kanji for Reading and Writing (3)
Lec-3 P/NP available
Prereq.: Satisfactory completion of JAPA 17 or equivalent
Intensive study of intermediate Kanji characters to increase competence in reading and writing Japanese and in understanding authentic materials. CSU

JAPA 39. Japanese Culture and Civilization (3)
Lec-3
Advise: ENGL 96 or Placement in ENGL 1A
No knowledge of Japanese required
Not open to students who are enrolled in or have completed JAPA 49
A consideration of the major achievements of Japanese culture as reflected in language, literature, art, religion and daily life. CSU/UC

JAPA 49. Japanese Culture and Civilization (3)
Lec-3 P/NP only
No knowledge of Japanese required
Not open to students who are enrolled in or have completed JAPA 39
A consideration of the major achievements of Japanese culture as reflected in language, literature, art, religion and daily life. CSU

---

Journalism
Office: Bungalow 615
Phone Number: (415) 239-3446
Web Site: www.ccsf.edu/journal

Announcement of Curricula
General Information
The Journalism Program prepares students for a two-year degree, transfer to a four-year program, or professional development in select areas of study. All journalism classes are credit classes and are offered on the Ocean and Mission Campuses. Enrollment in the various program areas is open to all interested students. Prospective students are encouraged to meet with a program adviser to discuss program specifics and articulation agreements.

Journalism Major (AA)
City College offers a degree in Journalism that gives the research, writing, and production skills that are essential to a career in journalism. Current technology, from online research to electronic pagination, will be taught during the first two semesters. Third and fourth semester students use these skills to write, design, and edit The Guardsman and/or Etc. Magazine. They cover a beat within the larger college community, learning the art and applying the crafts of journalism.

Learning Outcomes
Upon completion of this major students will be able to:
- Research, write, and edit news and feature stories for publication in print and in multimedia platforms.
- Contribute to the design and publication of newspapers and magazines.
- Critically discuss the role of journalists in modern society.
- Critically discuss the impact of the mass media on society.

Courses Required for the Major in Journalism

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>JOUR 19 Contemporary News Media</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 21 News Writing and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 51 Intro to Libraries &amp; Lib. Mat’ls</td>
<td>3</td>
</tr>
<tr>
<td><strong>General Education/Graduation Requirements</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>JOUR 22 Feature Writing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 27 Newspaper Design and Pagination</td>
<td>2</td>
</tr>
<tr>
<td>JOUR 37 Introduction to Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td><strong>Additional Graduation Requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>JOUR 23 Electronic Copy Editing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 24 Newspaper Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 38. Intermediate Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
</tr>
<tr>
<td>JOUR 24 Newspaper Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>or JOUR 29 Magazine Editing and Production</td>
<td>3</td>
</tr>
</tbody>
</table>
JOUR 25 Editorial Management ................... 3
JOUR 26 Fundamentals of Public Relations .......... 3
Additional Graduation Requirements

Total Units ...................................... 46

Suggested Electives

Journalism majors are advised to seek out a broad based education that will provide a strong liberal arts background. This is considered to be one of the best assets for a journalism professional. The list below is far from inclusive and is simply offered as a suggestion. Consult with an advisor and become familiar with college wide course offerings.

BCST 130 Radio Writing Workshop .................. 3
BCST 135 Podcasting ................................ 3
CINE 20A/B Film History ............................. 3
ENGL 14 Literary Magazine ........................... 3
ENGL 44A/B Surv of World Lit, Past & Present ...... 3
GRPH 36 Publishing Design ........................... 3
HIST 1 United States Since 1900 ..................... 3
IDST 37 Racial & Ethnic Groups in the U.S. ....... 3
MMSP 131 Social Media for Professionals ........... 3
MRKT 170 Introduction to Advertising ............... 3
PHOT 57 Photography for the Web ................... 3
PHOT 102B Documentary Photography ............... 2
PHOT 51 Beginning Photography ..................... 2
PHYC 10 Conceptual Physics .......................... 3
SOC 30 Social Psychology ............................ 3

Certificate Curricula

City College offers two certificate programs in Journalism, On-line Research Techniques and Editorial Management and Design. A student will receive a Certificate of Achievement after finishing the course of study with grades of C or higher in all courses. The Certificate programs are designed for working journalists interested in upgrading skills, students returning to school in search of new career opportunities, or currently enrolled students in the program. A student may receive a certificate while still working on a degree.

Editorial Management and Design Certificate

Courses Required for the Certificate of Achievement in Editorial Management Design

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>JOUR 19 Contemporary News Media</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 21 News Writing and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 51 Intro to Libraries &amp; Lib Mat’ls</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>JOUR 22 Feature Writing</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 56 Computers in Libraries</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 57 Internet Research Strategies</td>
<td>2</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>JOUR 26 Fundamentals of Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>43</td>
</tr>
</tbody>
</table>

On-line Research Certificate

Courses Required for the Certificate of Achievement in On-line Research

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>JOUR 19 Contemporary News Media</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 21 News Writing and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 25 Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 51 Intro to Libraries &amp; Lib Mat’ls</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>JOUR 22 Feature Writing</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 56 Computers in Libraries</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 57 Internet Research Strategies</td>
<td>2</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 24 Newspaper Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 23 Electronic Copy Editing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 25 Editorial Management</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>32</td>
</tr>
</tbody>
</table>

Announcement of Courses

Credit, Degree Applicable Courses:

JOUR 19. Contemporary News Media (3)
Lec-3
Introduction to modern mass communication. Emphasis on the development of news media (newspapers, radio, television, news magazines, advertising); analysis of the credibility of news media and its effect on daily life. Survey of career opportunities in journalism and related fields. CSU/UC

JOUR 21. News Writing and Reporting (3)
Lec-3
Prereq.: ENGL 93 or 94 or placement in ENGL 96
Techniques of newspaper writing, with emphasis and practice on developing and writing the news story. Training in information gathering and interviewing news sources. CSU

JOUR 22. Feature Writing (3)
Lec-3
Prereq.: ENGL 93 or 94 or placement in ENGL 96
Fundamentals in feature writing for magazines and newspapers with special emphasis on profile and interpretive news features. Practical experience in interview and in-depth research techniques. Training in how to free-lance a story for publication. CSU

JOUR 23. Electronic Copy Editing (3)
Lec-3
P/NP available
Prereq.: JOUR 21, 22, and GRPH 25
This course is for writers, working editors, and those considering a career in editing or copyediting. Students learn to edit newspapers, magazines and web site articles for accuracy, style and organization. The writer-editor relationship, and ways to keep it healthy, is emphasized throughout the course. CSU
JOUR 24. Newspaper Laboratory (3)
Lec-1, lab-6  P/NP available
Prereq.: JOUR 21, 22, and GRPH 25
Repeat: max. 6 units
An advanced newspaper laboratory course in which students apply the skills they have learned in previous writing and research courses to the publication of the college newspaper. CSU

JOUR 25. Editorial Management (3)
Lec-3, field trips
Coreq.: JOUR 24
An advanced journalism course that trains prospective print editors on all aspects of operating a publication, including developing a publishing schedule and story assignments, coordinating a writing staff, designing a page, writing headlines and cutlines, sizing photographs, understanding the business side of print journalism, and working with other editors and printers. CSU

JOUR 26. Fundamentals of Public Relations (3)
Lec-3
Prereq.: GRPH 25
Advis: JOUR 24
Prepares students to create an effective public relations campaign which includes writing media releases, “pitch” letters, public service announcements, managing media outlets, coordinating mailings and designing leaflets and posters, as well as setting up news conferences. Special attention given to in-house public relations duties for corporate and non-profit entities. CSU

JOUR 27. Newspaper Design and Pagination (2)
Lec-2, lab-2  P/NP available
Prereq.: GRPH 25
Fundamentals of newspaper design with special emphasis on tabloid publications. Practical hands-on experience in paginating the campus newspaper, The Guardsman. CSU

JOUR 28. Advertising and Design for Newspapers (2)
Lab-6
Prereq.: GRPH 25 or demonstration of GRPH 25 exit skills
A computer-based course designed to provide practical laboratory projects in the design and layout of newspaper advertisements using such applications as Multi-Ad Creator, or other current software. CSU

JOUR 29. Magazine Editing and Production (3)
Lec-2, lab-3
Prereq.: JOUR 21 or 22
Repeat: max. 9 units
Students will study the editorial, business, graphic, and production skills required for publishing a campus magazine. Course is appropriate for students interested in creative writing, graphic and fine arts, photography, business, and journalism. CSU

JOUR 30A-30B-30C. Selected Topics in Journalism (1-2-3)
Conf-1, ind st-2,3,4
Prereq.: LIBR 57 or CNIT 131
Supervised individual research and study on topics and issues in the mass media. The research could be an expansion of topics covered in introductory courses or an exploration of new topics. The work must serve to further the knowledge of the journalism student. Topics must be acceptable to both the student and the instructor. CSU

JOUR 30B. Orientation to Careers in Journalism.

JOUR 31. Internship Experience (2)
Conf-1, work-5
Prereq.: JOUR 24
Repeat: max. 4 units
Supervised on-campus or off-campus employment in a branch of journalism or a closely allied field to which the student shows himself/herself to be best adapted. This could include experiences such as working on community-based newspapers, publishing on the Internet, or improving the journalism publishing program at CCSF for the betterment of the larger community. CSU

JOUR 32. Journalism Internship (2)
Conf-1, work-5
Prereq.: JOUR 24
Repeat: max. 4 units
Supervised on-campus or off-campus employment in a branch of journalism or a closely allied field to which the student shows himself/herself to be best adapted. This could include experiences such as working on community-based newspapers, publishing on the Internet, or improving the journalism publishing program at CCSF for the betterment of the larger community. CSU

JOUR 33. Internship Experience (2)
Conf-1, work-5
Prereq.: JOUR 24
Repeat: max. 4 units
Supervised on-campus or off-campus employment in a branch of journalism or a closely allied field to which the student shows himself/herself to be best adapted. This could include experiences such as working on community-based newspapers, publishing on the Internet, or improving the journalism publishing program at CCSF for the betterment of the larger community. CSU

JOUR 34. Internship Experience (2)
Conf-1, work-5
Prereq.: JOUR 24
Repeat: max. 4 units
Supervised on-campus or off-campus employment in a branch of journalism or a closely allied field to which the student shows himself/herself to be best adapted. This could include experiences such as working on community-based newspapers, publishing on the Internet, or improving the journalism publishing program at CCSF for the betterment of the larger community. CSU

JOUR 35. Internet Journalism (3)
Lec-3, lab-1  P/NP available
Advis: JOUR 21
Internet Journalism focuses on three topic areas: examination of the role of the online journalist, web publishing, and using the Internet for investigative purposes. CSU

JOUR 36. Advanced Reporting (3)
Lec-3, field trips
Prereq.: JOUR 21
Advanced concepts of news gathering, interviewing and writing. Students will be assigned beats covering neighborhood communities and local government. Extensive research, interviewing, meeting coverage and writing involved. Students will improve and expand their news gathering and writing skills. CSU

JOUR 37. Introduction to Photojournalism (3)
Lec-3
Advis: PHOT 51 or demonstration of equivalent knowledge
Emphasizes concepts of photojournalism such as news and feature photography. Assignments will involve photographing people and visual story-telling at a level appropriate for publication such as in campus publications. Access to Single Lens Reflex (SLR) digital or film camera required CSU

JOUR 38. Intermediate Photojournalism (3)
Lec-3
Prereq.: JOUR 37
Advis: BCST 119 or equivalent skills
Emphasizes concepts of photojournalism at an intermediate level. Assignments will involve photographing people and visual story-telling at a professional entry-level appropriate for use in publications such as newspapers and magazines. Emphasizes integration of traditional photojournalism with new media technology reflecting current professional trends in photojournalism. Digital SLR required. CSU

JOUR 39. Internship Experience (2)
Conf-1, work-5
Prereq.: JOUR 24
Repeat: max. 4 units
Supervised on-campus or off-campus employment in a branch of journalism or a closely allied field to which the student shows himself/herself to be best adapted. This could include experiences such as working on community-based newspapers, publishing on the Internet, or improving the journalism publishing program at CCSF for the betterment of the larger community. CSU

JOUR 40. Civic Journalism (3)
Lec-2, lab-2  P/NP available
Advis: JOUR 21
Through an innovative model of research, discussion, and advocacy, each student will learn new ways to investigate, interpret, report and advocate on stories, issues, political actions and events affecting very low income communities and individuals locally and internationally. CSU
Students are advised to seek a four-year degree as the way to achieving that goal, the program helps them obtain internships and connects students to the broader community of public interest advocates.

Students who satisfy the requirements for graduation from the College and complete the required Labor and Community Studies courses with the average grade of C (2.00 grade-point average) or higher receive the degree of Associate in Science in Labor and Community Studies.

Admission. Enrollment in Labor and Community Studies is open to all interested students. College counselors orient students to the program and help them set up a course of study that is appropriate to their educational needs.

Course of Study. The course of study includes instruction in working class history, workplace rights, union and community organizing, economics, politics, art and social change, community advocacy, environmental justice, communications, public relations and organizational development, among others.

Electives are recommended to strengthen students’ skills in specific areas, to fulfill overall degree requirements and to facilitate transfer to associated four-year programs.

The Faculty. The faculty consists of scholars and practitioners of public interest work in unions, community groups, environmental organizations and government. They bring up to date, cutting edge information from their fields of interest to the students in the classroom, and provide them with a rich range of internship opportunities.

Transfer. Students have a wide range of transfer options to four-year colleges available to them after completion of the Labor and Community Studies program. This program prepares them for continuing education in Labor, Community and Environmental Studies, and in the social sciences and humanities.

Employment. Students are advised to seek a four-year degree as the most direct route to good careers in public interest employment. On the way to achieving that goal, the program helps them obtain internships and entry-level positions. This complements their classroom work and makes them attractive candidates for good jobs once they’re done with college. These include positions with unions, labor advocacy organizations, community and environmental groups and government agencies. Union positions include work as negotiators, field representatives, organizers, researchers, educators and lobbyists. Community and environmental positions include those in outreach and development, lobbying, membership and coalition building, education and communication. Work with government agencies includes enforcement, outreach and education.

Labor and Community Studies Major (AS)

<table>
<thead>
<tr>
<th>Course Required for the Major in Labor and Community Studies</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>LBCS 70A Who Built America? From the Colonial Era to the Civil War &amp; Reconstruction</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1 American Government</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 81 Organizing for Econ &amp; Soc Justice</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>LBCS 70B Who Built America? From Reconstruction to the Present</td>
<td>3</td>
</tr>
<tr>
<td>or LBCS 93D Wrk Tales: Labr Drama Workshop</td>
<td></td>
</tr>
<tr>
<td>or LBCS 98A Beg Labor Heritage Chorus</td>
<td></td>
</tr>
<tr>
<td>and LBCS 98B Inter Labor Heritage Chorus</td>
<td></td>
</tr>
<tr>
<td>and LBCS 98C Adv Labor Heritage Chorus</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1A Elements of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>LBCS 100 Racial Conflict &amp; Class Solid in Amer</td>
<td>3</td>
</tr>
<tr>
<td>WKE 303 Gen Career Work Exp-Service</td>
<td></td>
</tr>
<tr>
<td>Learning Internship</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>24</td>
</tr>
</tbody>
</table>

Labor and Community Studies electives: LBCS 15, 72, 74, 78A, 78B, 78C, 85, 88, 96C, 103

Recommended electives: ASAM 20; BIO 20; BCST 104; CDEV 93; ECON 25, 30; ENGL 55, 57; HLTH 221; HIST 12A/B, 15A/B, 21, 41A/B, 45; IDST 36, 37, 45, 80, 81; JOUR 21; LALS 11; POLS 12, 22, 25; PSYC 22/23; TH A 163

Certificate Curricula

The programs of study for the Certificates of Accomplishment in Labor and Community Studies prepare students for advocacy careers and for lives as active members of their communities. These programs teach the history of organized labor and social change movements. They teach students how to organize, communicate and motivate. They combine class work with public interest internships and connect students with transfer and career opportunities. The certificates are named for slogans, songs and people from working peo-history.

Admission. Enrollment is open to all interested students. College counselors orient students to the programs and help them set up a course of study that is appropriate to their educational needs.

Credit Certificate Programs

The Labor and Community Studies Program offers two credit certificate programs. They build on the coursework in the noncredit certificate programs and provide a bridge to the major. Students may enroll in the certificate programs after completing work in the noncredit certificates or they may enter the program at the credit level. Like the major, the credit certificates prepare students for transfer to four-year colleges and for advocacy careers.
330 Labor and Community Studies

**Cesar Chavez Certificate**

Cesar Chavez (1927-1993) was a civil rights and union leader and first president of the United Farm Workers Union.

This certificate requires the student to complete 12 units of coursework from the following list with a grade of "C" or higher for each course.

**Courses Required for the Certificate of Accomplishment in Level 4: The Cesar Chavez Advocacy Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBCS 70A or 70B Who Built America?</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 81 Organizing for Econ &amp; Soc Justice</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 96C Labr Relat in the Modern Am Wkplce</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 93A Workers &amp; Unions in Lit &amp; the Arts or LBCS 93D Wk Tals: Labr Drama Wkshp or LBCS 98A Beg Labor Heritage Chorus and LBCS 98B Inter Labor Heritage Chorus and LBCS 98C Adv Labor Heritage Chorus</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**.................................................................12

**Solidarity Forever/Si Se Puede Certificate**

Solidarity Forever is the anthem of the U.S. labor movement. Si Se Puede, "Yes We Can!" is the slogan of the United Farm Workers Union. This certificate requires the student to complete 9 units of coursework from the following list with a grade of "C" or higher for each course. The student must complete the Level 4 certificate prior to completing the Level 5 certificate.

**Courses Required for the Certificate of Accomplishment in Level 5: The Solidarity Forever/Si Se Puede Advocacy Certificate**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBCS 100 Racial Confl &amp; Class Solida in Amer</td>
<td>3</td>
</tr>
<tr>
<td>LBCS elective or elective from collaborating dept</td>
<td>3</td>
</tr>
<tr>
<td>WKE 103 General Career Work Exp-Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**.................................................................9

**Labor and Community Studies electives:** LBCS 15, 72, 74, 78A, 78B, 78C, 85, 88, 96C, 103

**Recommended electives:** ASAM 20; BIO 20; BCST 104; CDEV 93; ECON 25, 30; ENGL 55, 57; HLTH 221; HIST 122A/B, 15A/B, 21, 41A/B, 45; IDST 36, 37, 45, 80-81; JOUR 21; LALS 11; POLS 12, 22, 25; PSYC 22/23; TH A 163

**Announcement of Courses**

**Credit, Degree Applicable Courses:**

LBCS 15. Latin American Workers in the Americas (3)  
Lec-3  
**ADVICE:** ENGL 92 or ESL 150 or placement in ENGL 93 or 94; or ESL 160  
This course bridges Labor and Community Studies and Latin American/Latino/a Studies by comparing the histories and realities of Latin American workers in the U.S. and Latin America. The course traces the parallel histories of Latin American and Latino workers and discusses the ways in which politics, economics and social movements shape their experiences. CSU/UC  
LBCS 15 = LALS 15

LBCS 70. Who Built America? (3)  
Lec-3, field trips  
A multicultural history of the United States from the perspective of its working people. The economic, social and cultural trends that have shaped American class, race and gender relations. Emphasis on the struggle for justice at work and in society. Special focus on the history and present status of the American labor movement. CSU

LBCS 70A. Who Built America? From the Colonial Era to the Civil War and Reconstruction (3)  
Lec-3, field trips  

LBCS 70B. Who Built America? From Reconstruction to the Present (3)  
Lec-3, field trips  
A multicultural, post-Civil War history of the United States from the perspective of its working people. The growth of the railroads, territorial expansion, Native American wars, the wild west and the Gilded Age. Trusts, trustbusters, an American empire, the Statue of Liberty and Ellis Island. Craft unions, industrial unions, the Progressive movement, the Wobblies and World War I. The Roaring Twenties, the Great Depression, mass unionization, the New Deal and World War II. Cold war, Civil Rights, the Sixties, Asian and Latin American immigration and the global economy. American ideals and American realities. CSU/UC

LBCS 71A-71B. Labor and Politics (1-1)  
Lec-1  
P/NP available  
- LBCS 71A. Survey of the history, goals, and organization of unions and workers in the American political process. Underlying philosophies of labor's political involvement and ability to reflect workers' political interests. CSU  
- LBCS 71B. Survey of current organizational structure, strategies and activities of labor and unions in the political arena. Current approaches to issues, campaigns and member involvement. CSU

LBCS 72. Workplace Rights (3)  
Lec-3  
An overview of the legal frameworks and doctrines governing labor-management relations and the workplace rights of minorities and other employees. Designed to provide practical legal background for the study and practice of labor relations. CSU

LBCS 73. Labor Relations and the Collective Bargaining Process (3)  
Lec-3  
A practical course in the conduct and art of contract negotiations between labor and management. Special attention is given to the structure of bargaining, sources and uses of bargaining power, strategies for successful negotiation of agreements, “table manners,” and the content and language of labor contracts. CSU

LBCS 74. Economics for Labor and Community Leadership (3)  
Lec-3  
A non-technical examination of how the American economy works. Designed to identify important policy choices in dealing with employment and unemployment, inflation, resources allocation to priority needs, poverty, income distribution, and other major domestic and urban problems. Special attention given to economic forces affecting collective bargaining. CSU
LBCS 75. Pension, Health and Welfare Issues (3)
Lec-3 P/NP available
Survey of the major worker security programs including private and public employers and publicly-legislated plans. Working procedures, including coverage, financing, benefit levels, claims procedures, and appeals; analysis of issues requiring change and/or reform. Guest speakers on specialized topics: social security, unemployment insurance, and worker’s compensation. CSU

LBCS 76A. Communications for Labor Leadership (3)
Lec-3 P/NP available
How to use language to communicate simply, directly and effectively in union and community activity. Preparation and delivery of speeches. Public relations and media skills, including writing press releases and newsletters. Using video technology and radio preparation of public service announcements. Analysis of propaganda techniques. CSU

LBCS 76B. Advanced Communications for Labor Leadership (3)
Lec-3 P/NP available
A continuation of leadership training with a focus on the psychological aspects of leadership. Techniques in handling social and group conflicts. Time management and internal organizing techniques. Motivating the union member. CSU

LBCS 77. Grievance Machinery and Arbitration (3)
Lec-3 A practical study of grievance handling as a continuation of the bargaining process, leading up to and including arbitration as the final step in resolving grievances. Procedures, skills, responsibilities, and problems involved in handling work grievances. CSU

LBCS 78A-78B-78C. Women's Employment Issues (1-1-1)
Lec-1 P/NP available
These courses may be taken in any sequence. Repeat: for LBCS 78C: if no subject repeat
LBCS 78A. A survey of women's work in the past and present. Examines the historical evolution of women's work lives, the impact of family structure, prevailing notions of "women's place," labor market opportunities, and trade union organizations. CSU
LBCS 78B. Current issues facing women workers will be discussed. Topics include pay equity, legal rights of women workers, sexual harassment, combining work and family responsibilities and women's employment issues. CSU
LBCS 78C. Focus on special problems of selected occupational groups such as clerical workers, health workers and women in non-traditional jobs. CSU

LBCS 79. Health and Safety in the Workplace (3)
Lec-3, field trips P/NP only
Recognizing, understanding, and controlling work hazards. Principles of industrial hygiene and safety; role of union and collective bargaining activity; medical screening. Analysis of the background, content, and practical impact of both federal and state legislation. A survey of resources/agencies that assist in recognition/control of workplace hazards. CSU

LBCS 80. Rights and Discrimination in the Workplace (3)
Lec-3 P/NP available
Overview of employees' legal rights under federal, state and local law. Analysis of legal remedies available to unorganized workers. Includes anti-discrimination laws (dealing with race, sex, sexual preference, national origin, age, disability, etc.), California State Labor Code, Fair Labor Standards Act, and protections against arbitrary discipline and discharge. CSU

LBCS 81. Organizing for Economic and Social Justice (3)
Lec-3, field trips P/NP available
This class will examine the strategies and tactics of organizing in various social settings including the organizing of workers into modern trade unions. Reviewing legal limitations on workers rights in the United States and the constraints this places on recruiting members and developing leadership in organizing drives will be emphasized. CSU

LBCS 82. Public Sector Labor Relations (2)
Lec-2 P/NP available
Covers significant issues affecting public employee relations on the state and local levels. Includes development of public sector unionism, recent collective bargaining legislation, public financing, dispute resolution in the public sector, and lobbying, political action, and community coalition building as strategies for public sector workers. Comparison between public and private sector and within public sector throughout. CSU

LBCS 83. Federal Sector Labor Relations (1)
Lec-1 P/NP available
An overview of labor-management relations in the federal sector. Includes the statutes affecting federal employees, the procedures and rulings of relevant federal agencies and current issues of concern (lay-offs, contracting out, employee benefits). Discussion of lobbying, political action and public relations techniques for federal employees. CSU

LBCS 84. Building Trades Labor Relations (3)
Lec-3 P/NP available
Comprehensive overview of labor-management relations in the building and construction trades. Labor law; organizing; bargaining and contract administration; pension fund investment; and combating the two-gate system and growth of double-breasting. Pre-hire agreements, closed shop, prevailing wages, apprenticeship and OSHA standards. CSU

LBCS 85. History of the Labor Movement in San Francisco and the Bay Area (2)
Lec-2, field trips P/NP available
Survey of the Bay Area labor movement based on written documents and recollections; comparison to labor history in a national context. Analysis of implications of Bay Area history for contemporary challenges. Simple techniques of historical research and oral history; research projects. CSU

LBCS 86. Mediation Skills and Techniques (1)
Lec-1 P/NP available
An overview of the dynamics of the mediation process. Instruction in the skills and techniques necessary to its practice. Analysis of the potential effectiveness of mediation in a variety of labor-management and community disputes. CSU

LBCS 87. Managing Unions (3)
Lec-3 P/NP available
A survey of the organizational and leadership skills necessary to today's union official. Topics include developing an effective organizational structure, managing through planning, motivating members and staff, meeting legal responsibilities, making committees work, building steward systems, using new technology in the union office, resolving conflicts and developing personal leadership skills. CSU
LBCS 88. California Labor History (3)
Lec-3, field trips  P/NP available
The history of California’s working men and women and their quest for justice. Includes Native Peoples and the Spanish conquest, Chinese workers and the railroads, robber barons, general strikes, and Central Valley farmworkers. The history of working Californians of all regions, races, and cultures. CSU

LBCS 89. Advanced Arbitration Techniques and Strategy (1)
Lec-1  P/NP available
An intensive course on preparing and presenting an arbitration case. Covers gathering evidence, preparing statements, witness utilization, direct and cross-examination techniques, and writing briefs. Develop strategies appropriate to a variety of issues, contractual and discipline. Simulated arbitration cases will be used. CSU

LBCS 90A. Steward Training (1)
Lec-1  P/NP available
A comprehensive course of study designed for beginning union shop stewards or job site representatives. Roles and responsibilities of stewards including membership recruitment, communications union and members, mediating between workers and supervisors, and contract interpretation and enforcement. CSU

LBCS 90B. Advanced Steward Training (1)
Lec-1  P/NP available
Designed for experienced union stewards and representatives. Effective approaches to handling the more complicated and difficult situations facing employee advocates. Resolving worker vs. worker disputes and meeting the needs of problem members. CSU

LBCS 91-92-93. Special Topics in Labor and Community Studies (1-2-3)
Lec-1,2,3  P/NP available
Repeat: if no subject repeat
Exploration of topics of current interest in labor and industrial relations. CSU

LBCS 91A. Worker Participation Programs
LBCS 91B. Strikes and Alternative Tactics
LBCS 91D. Gay and Lesbian Issues in the Workplace
LBCS 91E. Workers Compensation Update
LBCS 92A. Unions around the World
LBCS 93A. Workers and The Labor Movement in Literature and the Arts
LBCS 93B. Labor Research and Strategic Analysis
LBCS 93C. Labor Heritage Chorus UC
(LBCS 93C = MUS 43)
LBCS 93D. Work Tales: Labor Drama Workshop

LBCS 94-95-96. Selected Topics in Labor Relations (1-2-3)
Lec-1,2,3, field trips  P/NP available
Study of labor relations in various industries, including their history, present status, and current issues. Includes ownership patterns, workplace structure, the changing workforce, management philosophies, unionization, workers’ rights, and current concerns. Labor relations as they affect the economy, society, and culture. CSU

LBCS 94A. Labor Relations in Childcare: History
LBCS 94B. Labor Relations in Childcare: Present Status
LBCS 94C. Labor Relations in Childcare: Current Issues
LBCS 94D. Labor Relations in Workforce Education
LBCS 95A. Labor Relations in Health Services

LBCS 96A. Labor Relations in the Hospitality
LBCS 96B. Labor Relations in the Automotive Industry
LBCS 96C. Labor Relations in the Modern American Workplace
LBCS 96D. Labor Relations in Aircraft Maintenance
LBCS 96E. Labor Relations in Health Care
LBCS 96F. Labor Relations in Broadcasting

LBCS 97. Current Issues in Labor Relations (0.5)
Lec-8 (total hrs)  P/NP available
A study of contemporary labor relations issues in various industries. Topics include patterns of ownership, the structure of the workplace, the changing workforce, management practices, unionization, worker’s rights and special concerns. An introductory analysis of labor relations as they affect the workplace and society. CSU

LBCS 97A. History
LBCS 97B. Present Status
LBCS 97C. Current Issues

LBCS 98A. Beginning Labor Heritage Chorus (1)
Lec-3, field trips  P/NP available
Repeat: max. 2 units
The beginning study is an introduction to the songs that reflect workers of diverse cultures such as Native American chants, folk and labor ballads, field hollers, Black cowboy songs, Chicano farm and border songs, Labor Motown, Asian-American work songs and songs of working women’s experiences. CSU/UC
LBCS 98A = MUS 48A

LBCS 98B. Intermediate Labor Heritage Chorus (1)
Lec-3, field trips  P/NP available
Prereq.: LBCS 98A/MUS 48A
Repeat: max. 4 units
Intermediate Labor Chorus is designed to further develop choral music techniques and knowledge of labor songs from various periods in American history, as presented in LBCS 98A/MUS 48A. Students will develop more complex choral techniques and repertoire. Increased focus will be on individual achievement and its effect on the progress of the chorus. CSU/UC
LBCS 98B = MUS 48B

LBCS 98C. Advanced Labor Heritage Chorus (1)
Lec-3, field trips  P/NP available
Prereq.: LBCS 98B/MUS 48B
Repeat: max. 4 units
Advanced Labor Chorus focuses on the development of a self-directed creative process and autonomy. Building on the concepts, skills and musical material of LBCS 98B/MUS 48B, students will become section leaders, soloists and conductors. CSU/UC
LBCS 98C = MUS 48C

LBCS 100. Racial Conflict and Class Solidarity in America (3)
Lec-3  P/NP available
Historical examination of the experiences of African American, Asian American, Spanish speaking and other minority workers in the 20th century, with special attention to union organizing. CSU/UC

LBCS 101. Issues in Workplace Health and Safety (1)
Lec-1  P/NP available
An overview of workplace health and safety hazards and how to control them. Update on recent legal developments. CSU
LBCS 102. Computer Skills for Labor and Community Activists (3)
Lec-3, lab-1 P/NP available
Prereq.: CS 100M or CNIT 100 or equivalent
This class will help students manage their membership lists, design budgets using spreadsheets, develop interactive communications through e-mail, on-line bulletin boards and list serves, conduct strategic research through the Internet, track grievances using databases, and cost out labor contracts. CSU

LBCS 103. Peer Counseling in the Workplace (1)
Lec-1 P/NP available
Training for volunteer peer counselors in the areas of substance abuse, strike and emergency assistance, unemployment, and related workplace problems. Covers information and referral issues as well as communication skills necessary to peer counseling. CSU

LBCS 104 A. Work Tales-Beginning Performance Workshop (3)
Lec-3, field trips
Repeat: max. 6 units
Beginning study of the history of labor and community theater. Creating stories of work and working people. Use of writing exercises and improvisation to create monologues and short scenes. Rehearsal and performance of original work. CSU

LBCS 104 B. Work Tales-Intermediate Performance Workshop (3)
Lec-3, field trips
Prereq.: LBCS 104 A
Repeat: max. 12 units
Intermediate study of labor and community theater with a focus on the United States in the Nineteen-Thirties and Nineteen-Sixties. Use of writing exercises and improvisation to create in-depth monologues and complex scenes of working class life. Rehearsal and performance of original work. CSU

LBCS 104 C. Work Tales-Advanced Performance Workshop (3)
Lec-3, field trips
Prereq.: LBCS 104B
Repeat: max. 12 units
Advanced study of labor and community theater, internationally and in the United States, from the Nineteen-Seventies to today. Working with labor and community organizations to create storytelling theatrical presentations that express their issues and concerns. Advanced performance training. Introductory directing and project leadership training. CSU

Noncredit Courses:
LACR 9802. Worker's Rights (18 hrs)
An overview of the rights and responsibilities of employees under federal, state and local law. Topics include wage and hour regulations, workers compensation, disability and unemployment insurance, discrimination laws, health and safety protections, and how unions work. Especially designed for current employees and vocational students. Conducted in English, Cantonese or Spanish.

LACR 9805. San Francisco Labor Today - Its Issues (5 hrs)
An overview of the various organizations within the San Francisco labor community. Attitudes of various unions on matters of wage policy, hours, health, pensions and welfare, automation and environmental problems, organizing the unorganized and community issues as they affect working people and the labor movement.

LACR 9806. Shop Steward Training (3 hrs)
Introduction to the roles and functions of the union steward. Legal rights and responsibilities; contract interpretation; effective use of the grievance procedure in contract enforcement. The human relations aspects of dealing with members and supervisors.

LAIR 9801. Collective Bargaining (6 hrs)
Designed to develop skills for effective participation in the negotiation process as conducted under a labor-management contract. Includes philosophy and mechanics of bargaining, as well as current issues facing labor and management negotiations.

LAIR 9807. Immigrant Workers' Rights (90 hrs)
Overview of immigrant workers’ rights. Topics include: U.S. immigration and labor history, comparison of native country and U.S. work experience, U.S. labor law, workforce diversity, problem solving and community resources. Intermediate language skills to discuss and understand the rights of immigrant and other workers in the U.S. workplace.

LAIR 9809. Labor Relations in Selected Industries (7 hrs)
An in-depth analysis of labor-management relations in selected industries. Includes a discussion of the nature and evolution of the collective bargaining relationship, the laws governing that relationship and workplace issues particular to that industry. Industries to be analyzed include health care, postal and federal sectors, transportation, garment, construction, retail and food service.

Latin American and Latino/a Studies
Office: Science 186
Phone Number: (415) 239-3126
Web Site: www.ccsf.edu/lals

Announcement of Curricula
Latin American & Latino/a Studies Major (AA)
The Latin American and Latino/a Studies major is a 21-unit program that offers courses in the Humanities, Ethnic Studies, Ares Studies and Social Sciences. Oriented toward serving our diverse student body, our courses will allow students to fulfill transfer requirements to CSU, UC and other private universities. The major is comprised of 12 core units and 9 elective units. In the core 12 units of the LALS major, students gain a foundation on the history, culture, and politics of Latin America and Latinos in the Americas. In addition, students will complete a minimum of 9 units in more specialized courses allowing the major to reflect student's individual interests. Finally, students will learn to integrate the writing, research and presentation skills necessary for the successful completion of a university degree.

Courses Required for the Major in Latin American and Latino/a Studies
Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LALS 1 Latino/a Diaspora: The Impact of Latinos/as Living in the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>LALS 10 Latinas in the U.S./Voces</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 11 Latin American Cultures &amp;Societies</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18A or 18 B History of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>Total Units:</td>
<td>12</td>
</tr>
</tbody>
</table>

Option 1: Humanities (9 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LALS 14 Diego Rivera Art and Social Change</td>
<td>3</td>
</tr>
<tr>
<td>MUS 25 Music of Latin America and the Caribbean</td>
<td>3</td>
</tr>
<tr>
<td>ART 105 Ancient Art/Arch of Latin America</td>
<td>3</td>
</tr>
</tbody>
</table>
ART 106 Latin America Art History.................. 3
LALS 70 Independent Study.......................... 3
HIST 18A or 18B History of Latin America*........ 3
DANC 110A Salsa Dance Production.................. 1
DANC 110B Salsa Dance Production: 2
DANC 155A Latin American Social and Folk Dance Forms
DANC 155B Latin American Social and Fold Dance Forms 1
(Maximum 3 units of DANC courses.)

Total Units ............................................. 21

Option 2: Social Science/Ethnic Studies/ Area Studies (9 Units)
LALS 11 Drug Wars in the Americas .................... 3
LALS/POLS 13 Latin American & Latino/a
Cross-Border Social Movement ....................... 3
LALS 14 Diego Rivera Art and Social Change ........ 3
LALS 15 Latin American Workers in the Americas ....... 3
HIST 18A or 18B History of Latin America*........... 3
HIST 20 History of Mexico ................................ 3
HIST 21 History of Mexican American/Chicano ........ 3
POLS 18 Government & Politics of Latin America ..... 3
POLS 8 Political Problems of Latin Americans .......... 3
LALS 70 Independent Study ........................... 3

Total Units ............................................. 21

* Credit only given for course not taken as one of the Core Courses

Latin American & Latino/a Studies Certificate

The Certificate of Achievement in LALS is a 12-unit program intended for public and private sector employees or anyone who wishes to learn from and about Latino/a communities in the United States and Latin America. This certificate will provide the competence and skills necessary to understand Latino/a intersecting identities by studying how race, class, gender, ethnicity and sexuality informs their experience in the United States and Latin America.

Courses Required for the Certificate of Achievement in Latin American and Latino/a Studies

Core Courses Units
LALS 1 Latino/a Diaspora: The Impact of Latinos/as Living in the U.S. .................. 3
LALS 10 Latinas in the U.S./VOCES ................. 3
ANTH 11 Latin American Cultures & Societies .......... 3
LALS 15 Latin American Workers in the Americas .......... 3

Total Units ............................................. 12

Announcement of Courses

Learning Outcomes

To provide students with scholarly courses which address the social, cultural, historical and political complexity of the emerging Latino/a diaspora and its impact on American culture and values; promote cultural understanding and appreciation for the differences and similarities between various peoples in the Western Hemisphere.

Credit, Degree Applicable Courses:

LALS 1. Latino/a Diaspora: The Impact of Latinos Living in the United States (3)
Lec-3, field trips P/NP available

ADVISOR: ENGL 92 OR ESL 150 OR PLACEMENT IN ENGL 93 OR ESL 160
This course examines the impact of the Latino/a Diaspora on the culture, identity and politics of the United States. It begins with the initial period of Spanish exploration in North America and concludes with current events and issues. The course will emphasize an analysis of the Diaspora’s effect on American systems and institutions. CSU/UC

LALS 9. The Latin American and Latina/o LGBT Experience (3)
Lec-3 P/NP Available

A survey of LGBT culture in Latin America and in Latino/a communities in the US. An examination of indigenous, cultural, sexual, psychological, socio-economic, immigration, literary and artistic elements. CSU

LALS 9=LGBT 9

LALS 10. Latinas in the U.S./VOCES (3)
Lec-3, field trips P/NP available

The course will examine the lives and experience of Latinas living in the U.S. It will explore the effects that their experiences have on self-esteem. Major social and cultural issues and themes will be discussed and analyzed using a multidisciplinary approach. CSU/UC

LALS 11. Drug Wars in the Americas (3)
Lec-3

The course will introduce the student to the impact of drug production and trafficking and their collective influence on the relationship between Latin America, Mexico and the United States; evaluate past and current U.S. drug policy and initiatives and law enforcement strategies; study the link between transnational organized crime and the drug cartels and the extent of the connection between drug production, drug trafficking, insurgency and terrorism in Latin America and Mexico. CSU/UC

LALS 13. Latin American and Latino/a Cross-Border Social Movements (3)
Lec-3 P/NP available

ADVISOR: ENGL 92 OR ESL 150 OR PLACEMENT IN ENGL 93 OR ESL 160
This course bridges Latin American and Latino/a politics by analyzing the experiences and struggles of social movements in Latin America and the United States. Among other aspects, their relationship to rebellions and revolutions in Latin America and the emergence of U.S.-based Latino/a cross-border social movements will be analyzed. CSU/UC

LALS 13=LALS 13

LALS 14. Diego Rivera; Art and Social Change in Latin America (3)
Lec-3, field trips

Mexican muralist Diego Rivera’s work exemplifies the use of art to create and awareness of history and to promote social change in Latin America. This interdisciplinary class will explore the work of Diego Rivera and the Latin American cultural movements that developed to address relevant social and political issues. The class will visit local murals, museums and cultural performances. CSU/UC

LALS 15. Latin American Workers in the Americas (3)
Lec-3

ADVISOR: ENGL 92 OR ESL 150 OR PLACEMENT IN ENGL 93 OR ESL 160
This course bridges Labor and Community Studies and Latin American/Latino/a Studies by comparing the histories and realities of Latin American workers in the U.S. and Latin America. The course traces the parallel histories of Latin American and Latino workers and discusses the ways in which politics, economics and social movements shape their experiences. CSU/UC

LALS 15 = LBCS 15
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Mode(s)</th>
<th>Repeat Information</th>
<th>Instructor Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 18A-18B</td>
<td>History of Latin America (3-3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LALS 70</td>
<td>Individual Study in Latin American and Latino/a Studies (1-2-3)</td>
<td>Ind st-5,10,15; field trips</td>
<td></td>
<td>max. 2 times</td>
<td></td>
</tr>
<tr>
<td>LALS 80-81-82</td>
<td>Special Topics and Issues in Latin American and Latino/a Studies (1-2-3)</td>
<td>Lec-1,2,3; field trips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 105</td>
<td>Ancient Art and Architecture of Latin America (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 106</td>
<td>Latin American Art History (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANTH 11</td>
<td>Latin American Cultures and Societies (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 18A-18B</td>
<td>History of Latin America (3-3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 20</td>
<td>History of Mexico (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 25</td>
<td>Music of Latin America and the Caribbean (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDST 70</td>
<td>Architecture and Diversity (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDST 70</td>
<td>Architecture and Diversity (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LALS 70</td>
<td>Individual Study in Latin American and Latino/a Studies (1-2-3)</td>
<td>Ind st-5,10,15; field trips</td>
<td></td>
<td>max. 2 times</td>
<td></td>
</tr>
<tr>
<td>LALS 80-81-82</td>
<td>Special Topics and Issues in Latin American and Latino/a Studies (1-2-3)</td>
<td>Lec-1,2,3; field trips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 105</td>
<td>Ancient Art and Architecture of Latin America (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 106</td>
<td>Latin American Art History (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANTH 11</td>
<td>Latin American Cultures and Societies (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 18A-18B</td>
<td>History of Latin America (3-3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 20</td>
<td>History of Mexico (3)</td>
<td>Lec-3</td>
<td>P/NP available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Leadership Language Courses: See Spanish in this section of the catalog.
communicating effectively, working collaboratively, resolving conflicts, balancing priorities, and managing one’s time. Leadership styles, functions and approaches will be discussed and evaluated. CSU

S L 12A. Leadership Skills: Independent Study (3)
Ind st-54 hrs P/NP available
Repeat: max. 12 units
An independent leadership project. CSU

LDST 101. Foundations of Leadership (3)
Lec-3, field trips P/NP Available
Advise: Completion of ENGL 92 or 160, or placement in ENGL 93 or 94
This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates readings from the humanities, experiential exercises, films, and contemporary readings on leadership. CSU

Learning Assistance
Office: Rosenberg 207
Phone Number: (415) 452-5502
Web Site: www.ccsf.edu/lac

Announcement of Courses
General Information
The mission of the Learning Assistance Department is to provide a supportive environment that promotes active learning and encourages collaboration among members of our diverse community. Toward this goal, we assist students in achieving their academic, vocational, and personal goals through our academic-support program offerings: college success courses and workshops, peer-led small groups, student-centered peer and professional tutoring, and an open-access computer lab.

Learning Outcomes
Learning Assistance Department students learn to apply a variety of active learning strategies to their personal growth and values, academic study skills, critical and creative reasoning proficiency, tutoring abilities, and career exploration and development.

Credit, Degree Applicable Courses:
LERN 10. Introduction to Tutoring (1)
Lec-1 P/NP only
Prereq: Acceptance into a CCSF peer tutoring program
Not open to students who have completed IDST 50
This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates readings from the humanities, experiential exercises, films, and contemporary readings on leadership. CSU

LERN 50. College Success (3)
Lec-3 P/NP available
Not open to students who have completed IDST 50
A comprehensive course that integrates personal growth and values, academic study strategies, and critical and creative thinking proficiency. Life management, leadership philosophies, critical and creative reasoning, study skills, and personal values. Instructor-student relationships, maintaining health, memory and concentration, lecture note-taking, textbook studying, subject-specific studying, test taking, using the library, critical analysis, problem-solving, and creative thinking. Emphasis on the attainment of life-long success in academic, professional and personal development. CSU/UC
LERN 50 = IDST 50

LERN 51. College Success Basics (1)
Lec-1 P/NP only
This brief course introduces students to basic college success strategies: goal setting and time management, memory and concentration, lecture note-taking, textbook studying and test taking. CSU

LERN 52A-52B. Specific Study Strategies (0.5-0.5)
Lec-0.5 P/NP only
Repeat: max. 1.5 units ea.
LERN 52A is not prerequisite to 52B.
This brief course introduces students to basic college success strategies: goal setting and time management, memory and concentration, lecture note-taking, textbook studying and test taking. CSU

LERN 53. Test Prep: Standardized Exams (0.5)
Lec-8 (total hrs) P/NP only
Repeat: max. 2 units
Prepares students for standardized, timed tests. Each course focuses on a single test or subtest. Specific content for each course is determined by the particular test for which students are preparing.

LERN 53A. Test Prep: Standardized Exams-CBEST English
LERN 53B. Test Prep: Standardized Exams-CBEST Math
LERN 53C. Test Prep: Standardized Exams-CSET English
LERN 53D. Test Prep: Standardized Exams-CSET Math
LERN 53E. Test Prep: Standardized Exams-ABE
LERN 53F. Test Prep: Standardized Exams-CAHSEE English
LERN 53G. Test Prep: Standardized Exams-CAHSEE Math
LERN 54A. Test Prep: CSET Math Single-Subject Exam (1)
Lec-1 P/NP only
Repeat: max. 4 units
This short-term course is designed to prepare students for the California State Examinations for Teachers (CSET) Single-Subject Mathematics Exam. Topics covered include: test-preparation and test-taking strategies, the history of mathematics, algebra, geometry, calculus, number theory, probability, and statistics.

LERN 55. Successful Online Learning (1)
Lec-1 P/NP available
Repeat: max. 2 units
Technology and study skills necessary to succeed in online courses. Includes online course navigation, course-related computer competency, self-directed learning, online communications, and study skills for online learning. Especially for students new to online study and students who have been unsuccessful in online courses in the past.

LERN 60. Career Success and Life Planning (3)
Lec-3, field trips P/NP available
An in-depth guide to career decision-making and career change and their impact on lifelong learning. Topics include self-assessment, assessment of the world of work, evaluation of options, and the creation of a career action plan. Focus is on the role of career development in contributing to a satisfying life. Helpful to people considering a career change or undecided about a college major. CSU/UC

LERN 61. Orientation to Career Success (1)
Lec-1 P/NP available
Constructing career success through integrating values, skills, and interests with an understanding of the emerging world of work. Topics include self-assessment, on-line and other career resources, and the construction of a plan for exploring career options. Appropriate for new college students as well as continuing students. CSU
Formerly LERN 40.

LERN 62. Successful Job Search Techniques (1)
Lec-1 P/NP available
A comprehensive job search course that addresses skills assessment, generating employment options, hard copy and electronic resources and job postings, research techniques, traditional résumé types as well as keyword scannable résumés and cover letters, and interview techniques. Emphasis on techniques to sustain healthy motivation for job search network and development throughout life. CSU
Formerly LERN 41.

LERN 63. Career Counseling for Work Experience (1)
Lec-1 P/NP available
The seminar provides support and skill building experiences for students currently working in paid or unpaid positions. The content addresses workplace objectives, and interpersonal, communication and problem-solving skills and their work site application. CSU
Formerly LERN 42.

LERN 64. Financial Planning for Academic/Career (1)
Lec-1 P/NP only
Critical analysis and practical application of topics related to career and financial planning as they relate to success in college. This course will provide students with financial planning and management tools for academic and career success. Appropriate for new and continuing college students. CSU

LERN 65. Critical Thinking and Problem Solving (5)
Lec-5 P/NP available
An in-depth guide to problem-solving techniques and methods. Emphasis on the role of critical thinking in contributing to a satisfying life. Helpful to people considering a career change or undecided about a college major. CSU/UC

LERN 66. Critical Thinking and Problem Solving (5)
Lec-5 P/NP available
An in-depth guide to problem-solving techniques and methods. Emphasis on the role of critical thinking in contributing to a satisfying life. Helpful to people considering a career change or undecided about a college major. CSU/UC

LERN 68. Career Coaching for Youth Workers (3)
Lec-3, field trips P/NP available
An introduction to the elements of career coaching for those interested in working with youth and young adults. Methods and skills appropriate to facilitate career awareness, exploration, and development. CSU

Noncredit Courses:
LERN 1000. Supervised Tutoring (50 hrs)
Tutoring and learning support activities outside of class. Assistance in achieving academic course learning outcomes, basic skills (including reading, writing, math and ESL), study strategies and computer skills. Students work tutors who are recommended, trained and supervised by faculty. Students must have a referral by faculty to receive tutoring.

LERN 1062. Job Search Skills (15 hrs)
A job search-course that teaches skills to generate employment options through self-assessment, the use of interview techniques, cover letter and resume development, and job search strategies.

Lesbian, Gay, Bisexual, and Transgender Studies

Office: Cloud 126
Phone Number: (415) 239-3876
Web Site: www.ccsf.edu/lgbt
*Formerly: Gay, Lesbian and Bisexual Studies

Announcement of Curricula

Lesbian, Gay, Bisexual, and Transgender Studies

Lesbian, Gay, Bisexual, and Transgender Studies Major (AA)

Associate in Arts in LGBT Studies. This program offers a multidisciplinary and multicultural approach to the study of Lesbian, Gay, Bisexual, Transgender, Queer and Intersex identities, culture, art, literature, politics, history and society both globally and domestically. Through the Arts, Humanities, Social Sciences and Behavioral Sciences, the LGBT Studies Major incorporates queer theory, theories of race and ethnicity, feminist theory, and the study of comparative social and political movements to examine the ways that we currently understand and have historically understood various constructions of sexuality, gender identity and behavior depending upon historic time and global location. To support this multidisciplinary approach, the LGBT Studies Department offers courses that cover literature, film, art, ethnic studies, history, anthropology, psychology, politics, religion and health. While the LGBT Studies major at City College of San Francisco offers a full and array of General Education and Diversity requirements, it will also prepare students for transfer to numerous LGBT/Queer Studies baccalaureate programs in the United States and Canada.

Learning Outcomes
Upon completion of this degree, students will be able to:

- Research, analyze, and critically address key issues in understanding Lesbian, Gay, Bisexual, Transgender, Queer and Intersex histories and the intersectionality of LGBTQI identity formations with race, ethnicity, socio-economic status, religion, age, and ability within the context of systems of power and privilege.
• Think and write critically about key issues concerning LGBTQI people in various regions of the world with a keen understanding of the ways that race, ethnicity, socio-economic status, gender identity, sexual orientation and other factors that form cultural identity are informed by issues of politics, religion and colonial histories throughout different historical, political, and social contexts.

**Courses Required for the Major in Lesbian, Gay, Bisexual and Transgender Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Required Courses for All Students (May Be Taken At Any Time):</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGBT 5 Introduction to Lesbian, Gay, Bisexual and Transgender Studies</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 15 Pre-Stonewall Writers and Cultures</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Courses in the Arts and Humanities (Minimum of 6 units, at least one course from Arts):**

| Course | LGBT 20 LGBT American Art and Culture | 3 |
|--------|--------------------------------------|
| LGBT 25 The Lesbian and Gay Avant-Garde of the Fifties: Hot Art/Cold War | 3 |
| LGBT 55 Global LGBT Art and Culture | 3 |
| LGBT 77 Queer Creative Process | 3 |

**Humanities:**

| Course | LGBT II The History of Homosexuality in Film | 3 |
|--------|---------------------------------------------|
| LGBT 12 Recent Queer Cinema | 3 |
| LGBT 75 Queer Cinema in the 1970's | 3 |
| ENGL 55 LGBT Literature | 3 |

**Required Courses in the Social and Behavioral Sciences (Minimum of 6 units):**

| Course | LGBT 10 LGBT Culture and Society | 3 |
|--------|--------------------------------|
| LGBT 30 Issues in the Lesbian Community | 3 |
| LGBT 40 LGBT Aging Issues | 3 |
| LGBT 50 LGBT Communities of Color in the United States | 3 |
| LGBT 60 Psychology of Sexual Minorities | 3 |
| LGBT 70 AIDS in America | 3 |
| ANTH 20 LGBT Anthropology | 3 |
| HIST 45 LGBT American History | 3 |

**Elective Courses (Minimum of 3 units; may include Arts & Humanities and Social & Behavioral courses listed above, if not used to meet minimum requirements):**

| Course | LGBT 21 Issues in Lesbian Relationships | 3 |
|--------|---------------------------------------|
| LGBT 24 Gay Male Relationships | 3 |
| BCST 103 Mass Media and Society | 3 |
| CDEV 76 Supporting LGBT Families in ECE | 3 |
| HLTH 25 Women’s Health Issues | 3 |
| HLTH 27 Men’s Health Issues | 3 |
| HLTH 67 HIV/STI Prevention | 3 |
| IDST 17 Human Sexuality | 3 |
| IDST 36 Poetry for the people | 3 |
| IDST 80A Diversity: Racism | 0.5 |
| IDST 80C Diversity: Sexism | 0.5 |
| IDST 80D Diversity: Heterosexism | 0.5 |
| IDST 80E Diversity: Ableism | 0.5 |
| IDST 80F Diversity: Classism | 0.5 |
| IDST 80G Diversity and Social Justice: Transphobia | 0.5 |
| PSYC 14 Psychology of Shyness and Self-Esteem | 1 |
| PSYC 15 Assertive Behavior | 1 |
| WOMN 10 Women in Film | 3 |
| WOMN 54 Politics of Sexual Violence | 3 |
| WOMN 55 Ending Sexual Violence | 3 |

**Total Units: 21**

---

**Announcement of Courses**

**Credit, Degree Applicable Courses:**

**LGBT 5. Introduction to Lesbian, Bisexual, Gay and Transgender Studies (3)**

Lec-3, field trips, P/NP available

This introductory course examines a broad range of contemporary gay, lesbian, bisexual and transgender issues in various contexts including biomedical, sociological, political, racial and sexual. Additionally, students have the opportunity to develop critical thinking skills and practical academic skills vital for further progress in the program.

Students leave the course with practice in essay writing, exam preparation, literature analysis and become familiar with academic resources available to them through local archives, libraries and the Internet.

CSU/UC

Formerly GLST 5

**LGBT 9. The Latin American and Latina/o LGBT Experience (3)**

Lec-3, P/NP Available

A survey of LGBT culture in Latin America and in Latino/a communities in the US. An examination of indigenous, cultural, sexual, psychological, socio-economic, immigration, literary and artistic elements. CSU

LALS 9=LGBT 9

**LGBT 10. Lesbian and Gay Culture and Society (3)**

Lec-3, P/NP available

Distinct styles in dress, manner, and taste have played a central role in the development of lesbian and gay community, identity and culture. This course examines significant styles from leather to lipstick and from drag to disco and assesses the evolution of sensibility and identity in various lesbian and gay cultures and communities. CSU

Formerly GLST 10

**LGBT 11. History of Homosexuality in Film (3)**

Lec-3, P/NP available

Surveys significant trends in the representation of queer sexualities in mainstream commercial cinema, as well as underground and independent films from the silent era to the present. Identifies prominent theoretical approaches to the study of queer cinema intended to develop analytical skills for interpreting homophobic subtexts in mainstream films, as well as issues in creating alternative representations.

Emphasizes the way social attitudes shape cultural representation, and interrogates the relationship between audience interpretation and filmmakers’ intentions. CSU/UC

Formerly GLST 11

**LGBT 12. Homosexuality in Recent Cinema (3)**

Lec-3, P/NP available

Examines significant issues in the contemporary cinematic representation of queer sexualities inside and outside of commercial cinema. Defines narrative expressed in each form. Films screened progress from multimillion dollar Hollywood representations of queerness which reflect social prejudices to alternative productions made outside of commercial constraint. The language of film theory and recent writings from a queer studies perspective aid in developing an alanguage for discussing the way cinema both challenges and reinforces societal
to restore the specifically lesbian or gay voices of some of the most whom they associated—on the development of American art. It seeks of lesbian and gay artists—and the poets, dancers and writers with. From Sappho to Carson McCullers; from Oscar Wilde to the Beat Generation. CSU/UC
Formerly GLST 15

LGBT 18. Transgender Lives, Culture and Art (3)
Lec-3 P/NP Available
Focuses on Transgender and ‘gender variant’ figures throughout the world who, historically, held a sacred place within ancient cultures as evidenced in art and literature. The course will then move to explore modern and contemporary views of ‘Transgender and ‘gender variant’ people within various cultures including LGBT politics, art and culture. CSU

LGBT 20. Lesbians and Gays in Modern American Culture: The Homosexualization of American Art (3)
Lec-3 P/NP Available
Lesbian and gay American artists of the late 19th and 20th centuries and their influences on modern art. This course analyzes the contribution of lesbian and gay artists—and the poets, dancers and writers with whom they associated—on the development of American art. It seeks to restore the specifically lesbian or gay voices of some of the most talked about figures in American cultural history from Thomas Eakins to Jasper Johns against the background of the lesbian and gay movement. CSU/UC
Formerly GLST 20

LGBT 21. Issues in Lesbian Relationships (3)
Lec-3 P/NP available
An exploration of the historical, cultural, and psychological forces that impact lesbian relationships. Examination of the stages relationships go through with an emphasis on the issues of intimacy, commitment, and the sociological repercussions of homophobia and minority status on the lesbian dyad. The complexity of legal, political, and multicultural influences and ramifications will also be explored. CSU
Formerly GLST 21

LGBT 24. Gay Male Relationships (3)
Lec-3 P/NP available
Examines the dynamics of gay male relationships. Provides historical and theoretical perspectives on the impact of homophobia on gay relationships. Provides students with practice in clear communication and conflict resolution in male dating, bonding, and developing lasting relationships. CSU
Formerly GLST 24

LGBT 25. The Lesbian and Gay Avant-Garde of the Fifties: Hot Art/Cold War (3)
Lec-3 P/NP available
This course examines major works of art, music, dance, photography, poetry, and film from the Fifties and early Sixties. In considering the work of artists as diverse as John Cage, Louise Nevelson, and Andy Warhol, it analyzes the importance of lesbian and gay figures within the avant-garde and the significance of their contributions to American culture during this repressive period. CSU/UC
Formerly GLST 25

LGBT 30. Issues in the Lesbian Community (3)
Lec-3 P/NP available
Historical analysis and examination of issues central to the development of lesbian identity, culture, and relationships. Exploration and debate of current controversial issues in the political, social, and personal realms of lesbian experience. CSU/UC
Formerly GLST 30

LGBT 40. Lesbian and Gay Aging Issues (3)
Lec-3, field trips P/NP available
An exploration of the lesbian and gay dimensions of aging. Basic concepts in aging are presented and delineated, using examples drawn from autobiographical sources. Existing lesbian and gay institutions and programs that focus on aging are described, current research in lesbian and gay aging is reviewed, and future trends discussed. CSU
Formerly GLST 40

LGBT 50. Gay/Lesbian/Bisexual/Transgender Communities of Color in the U.S. (3)
Lec-3 P/NP available
Examination of the formation of lesbian/gay/bisexual and transgender identities and communities among people of color in the United States. Included are African Americans, Native Americans, Asian Americans, Pacific Islanders, and Chicano/Latinos. CSU/UC
Formerly GLST 50

LGBT 55. Global GLBT Art and Culture (3)
Lec-3 P/NP available
Is there such a thing as a global queer culture? Do gay, lesbian, bisexual and transgender people from different global regions have different queer cultural norms or is there something that unites queer people despite their regional difference? This class employs film, documentary, photography, art, music and literature to allow students to compare and contrast contemporary queer subcultures from four (4) separate regions of the globe. CSU/UC
Formerly GLST 55

LGBT 60. Psychology of Sexual Minorities (3)
Lec-3 P/NP available
Examination of the psychological experience of lesbian, gay, bisexual, transgendered (LGBT) and homopobic people. Impact of additional minority identities (e.g., ethnicity, aging, HIV status and spirituality) on LGBT identities. Influence of psychology and psychiatry on shaping the experience of LGBT people and people with multiple minority identities. Students will gain practice in essay writing, exam preparation, and literature analysis. CSU/UC
Formerly GLST 60

LGBT 70. AIDS in America (3)
Lec-3 P/NP available
Exploration of the sociological, political and medical dimensions of AIDS. Emergence of AIDS into the American psyche, noting critical moments in the story of AIDS such as defining of risk factors, the discovery of a test for HIV antibodies, and the impact of public figures coming out as HIV positive. Examination of how AIDS and its metaphors have changed, focusing on ethical and legal issues of today and tomorrow. CSU/UC
Formerly GLST 70
LGBT 75. Queer Cinema in the 70s (3)  
Lec-3  P/NP available  
Exploration of the overlapping impact of a profoundly significant period in both the gay rights movement and American film history. The resulting images represented queerness more openly than before, while simultaneously painting it as at best ridiculous, and at worst, monstrous. Meanwhile, queer filmmakers were laying the groundwork for the current revolution in independent cinema. CSU/UC  
Formerly GLST 75

LGBT 76. Supporting LGBT Families in ECE (3)  
Lec-3  
Adviser: CDEV 67  
Analysis of issues and challenges faced by lesbian, gay, bisexual and transgender parents and their children in early childhood settings and exploration of the role of early childhood educators and programs in creating inclusive environments. CSU  
Formerly GLST 76

LGBT 77. Queer Creative Process (3)  
Lec-3, field trips  P/NP available  
Within the context of Queer/LGBT-identity, original art work is explored. Genres included: fiction/non-fiction writing, writing for performance, comedy and film/video. The creative process, peer critiques and analysis, as it relates to Queer-identity and societal reception, form the course's core. CSU/UC  
Formerly GLST 77

ANTH 20. LGBT Anthropology (3)  
Lec-3  P/NP available  
The roles and statuses of homosexuals in various cultures throughout the world, drawing heavily on examples from non-Western people, like those in Native American, Middle Eastern, African and Asian societies. Various aspects of culture which affect homosexuals' status, such as economic participation, religion, social relationships, and attitudes toward sexuality, will be examined in detail. CSU/UC

BCST 106. Queer TV: Television and Lesbian and Gay Identity (3)  
Lec-3  P/NP available  
Examination of how gays, lesbians, bisexuals, and transgender people are represented in and by the mainstream electronic media with strong emphasis on television. CSU

BIO 15. The Biology of HIV (2)  
Lec-3, field trips  P/NP available  
Introductory survey of the biology of human immunodeficiency virus (HIV) and AIDS. The life cycle of HIV and retroviruses; HIV transmission, epidemiology, immunology, and pathogenesis; and HIV prevention and treatment. CSU/UC

ENGL 55. Gay and Lesbian Literature (3)  
Lec-3  P/NP available  
Prerequisites: ENGL 96 or placement in ENGL 1A  
A survey of gay and lesbian literature drawing on examples that present material relevant to present day experience. CSU/UC

ENGL 56A-C. Selected Topics in Gay and Lesbian Literature (3-3-3)  
Lec-3  P/NP available  
Prerequisites: ENGL 96 or placement in ENGL 1A  
No part of the ENGL 56 series is prerequisite to any other part. Selected topics in gay and lesbian literature focusing on specific chronological, generic, thematic, biographical, or national cultural structures. CSU/UC

ENGL 56A. The International Scene  
ENGL 56B. Contemporary Fiction: Gay and Lesbian fiction from the 1960s to the present  
ENGL 56C. American Classics

HLTH 20. Sexual Well Being (2)  
Lec-2  P/NP available  
A holistic approach to cultivating, maintaining, and balancing male and female sexual energies; investigation into the current role of sexual health with an emphasis on prevention and risk assessment and development of skills to put this knowledge into practice; all aspects of sexually transmitted diseases including AIDS. CSU

HLTH 25. Women's Health Issues (3)  
Lec-3, field trips  P/NP available  
Advisers: ESL 150 or ENGL 90 or placement in ESL 160 or ENGL 92  
A health class emphasizing the empowerment of each woman in the pursuit of her physical, mental, spiritual, and political health. Aimed at meeting the needs of women of diverse ethnic backgrounds and sexual orientations. Topics include: breast self-exam, menstrual health, reproductive management, motherhood, AIDS and STIs, menopause, violence against women, stress, nutrition, exercise, alternative health, and more. Course work involves research on personal health concerns. CSU/UC

HLTH 27. Men's Health Issues (3)  
Lec-3  P/NP available  
Advisers: ESL 150 or ENGL 90 or placement in ESL 160 or ENGL 92  
Consideration of physical, psychological, social and political influences on the health of men. This course is aimed at meeting the needs of participants with diverse ethnic backgrounds and sexual orientations. CSU/UC

HLTH 45. AIDS: The Epidemic (1)  
Lec-2 (8 wks)  P/NP available  
Investigation of the physiological, emotional, social and cultural aspects of the AIDS epidemic with emphasis on risk assessment, prevention, and methods of coping. Includes basic biological and microbiological principles relating to AIDS. CSU

HIST 45. Lesbian and Gay American History (3)  
Lec-3, field trips  P/NP available  
A survey of the origins, development, and current status of the gay, lesbian, and bisexual reform and liberation movements in the United States during the last two centuries, with particular emphasis since the Second World War. The lives, communities, organizations, and resistance movements created by lesbian, gay, and bisexual peoples from diverse racial, ethnic, and class backgrounds. CSU/UC

LBCS 91D. Gay and Lesbian Issues in the Workplace (1)  
Lec-1  P/NP available  
A survey of issues which affect gay and lesbian workers, including job discrimination and relevant legal protections, techniques for responding to harassment at work, and the use of negotiated grievance procedures and other contractual protections in a unionized workplace. Students will participate in role-playing and other classroom activities to develop effective personal and organizational approaches to on-the-job problems. CSU
MUS 27C. Music and Queer Identity (3)
Lec-3
P/NP available
Examination of the question of how music encodes “queerness” by focusing on various musical styles and musical performers that have become significant for various lesbian and gay communities. CSU

Noncredit Courses:
LGBT 4800. Techniques for Ause Recovery (18 hrs)
Instruction in skills supporting social health needs of survivors of bullying, gay bashing, harassment, rape and gender/sexual abuse. Students discuss and practice recovery techniques applied to seven major energy centers in the body (Hindu chakra system) to assist in furthering recovery and increasing resilience against threats of recurring abuse.

Liberal Arts and Sciences
The Liberal Arts and Sciences degree is designed for students who wish to have a broad knowledge of arts and sciences plus additional knowledge in an “Area of Emphasis.” This degree can be a good option for students planning to transfer to the university as it provides the flexibility for students to satisfy both general education and lower division major requirements for specific universities while meeting associate degree requirements at the same time. For more detailed information on transfer requirements, students should speak with a counselor and refer to www.ASSIST.org.

To complete the requirements for the Associate in Arts or Associate in Science for this degree, a student must:

- Complete the CCSF General Education requirement (18-24 units).
- Complete 18 units in one “Area of Emphasis” from those outlined below.
- Each course used to meet this “area of emphasis” requirement must be completed with a grade of “C” or higher (or “Credit” or “Pass” if the course was taken on a “credit/no credit” or “pass/no pass” basis). Where appropriate, courses in the “area of emphasis” may also be counted for a General Education area.
- Complete all other CCSF graduation requirements (i.e., math, GPA, residency, and unit requirements).

AREAS OF EMPHASIS

Arts and Humanities Emphasis (AA)
Associate in Arts in Arts and Humanities
These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments. Students pursuing this area of emphasis must take at least one course in the arts and at least one course in humanities. Students should meet with a counselor to select appropriate courses.

Arts:
- African American Studies 5I, 55;
- Architecture 29A, 31A, 31B, 32, 34, 102;
- Asian Studies 11;
- Cinema 18, 21, 23A, 23B;
- Dance 30, 32, 100A, 107A, 107B, 107C;
- Design 101, 105, 110;
- Fashion 23, 55;
- Graphic Communications 2I;
- Interdisciplinary Studies 70;
- Interior Design 138;
- Labor and Community Studies 93A, 104A, 104B, 104C;
- Latin American and Latino/a Studies 14;
- Lesbian/Gay/Bisexual/Transgender Studies 20, 25, 55, 77;
- Photography 50A, 50B;
- Speech 38;
- Theatre Arts 15, 30, 31, 32, 71, 150, 152, 163, 200

Humanities:
- African American Studies 30, 35, 40, 50, 51, 60;
- American Civilization 11A, 11B;
- American Studies 5;
- American Studies 6, 10, 20, 30, 35;
- Asian Studies 12, 30;
- Broadcast Electronic Media Arts 103, 106;
- Cinema 20A, 20B, 21, 22;
- Classics 35;
- French 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 5, 10A, 10B, 10C, 10D, 10E, 11A, 11B, 21, 22, 41, 42;
- German 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 11A, 11B;
- Humanities 7, 8, 11, 12, 20, 25, 35, 41A, 41B, 48;
- Interdisciplinary Studies 4, 13, 23, 27A, 27B, 29, 30, 36, 37, 38, 42, 44, 45, 46, 47, 100A;
- Italian 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4A, 4B, 10A, 10B, 10C, 10D, 15A, 15B, 4I;
- Japanese 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 16, 39, 49;
- Latin American and Latino/a Studies 1;
- Lesbian/Gay/Bisexual/Transgender Studies 11, 12, 15, 18, 75;
- Philippine Studies 30;
- Philosophy 2, 4, 25A, 25C;
- Pilipino 1, 2, 10A, 10B, 10C, 39A, 39B;
- Spanish 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 5, 5S, 6, 6A, 6B, 7, 10A, 10B, 10C, 10D, 31, 31A, 31B, 32, 4I;
- Speech 5, 37;
- Women’s Studies 10, 20

Note: See online catalog for an updated list of courses.
Communication Emphasis (AA)
Associate in Science in Communication

These courses emphasize the content of communication as well as the form and should provide an understanding of the psychological basis and social significance of communication. Students will be able to assess communication as the process of human symbolic interaction. Students will also develop skills in the areas of reasoning and advocacy, organization, accuracy, reading and listening effectively.

- English 1A, 1B, 1C;
- English as a Second Language 79;
- Philosophy 2, 4, 40;
- Speech 1A, 2, 3, 4, 6, 11, 12, 20

Note: See online catalog for an updated list of courses.

Science and Mathematics Emphasis (AS)
Associate in Science in Science and Mathematics

These courses emphasize the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in Math emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in Math emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students

Science:
- Anatomy 14, 25;
- Anthropology 1;
- Astronomy 1, 4, 14, 16, 17, 18, 19, 20;
- Biology 9, 11, 15, 20, 30, 31, 32, 32L, 40, 41L, 100A, 100B;
- Biotechnology 115, 120;
- Botany 10;
- Ecology 20;
- Energy 3;
- Environmental Horticulture 76, 77;
- Genetics 10, 11, 15;
- Geography 1, 1L, 49;
- Geology 10, 10L, 11, 18, 20A, 20B, 20C, 25, 30, 30L;
- Interdisciplinary Studies 9;
- Microbiology 10, 12, 51;
- Nutrition 12, 5I, 52;
- Oceanography 1, 1L;
- Paleontology 1;
- Physical Science 11, 11L;
- Physics 2A, 2AL, 2B, 2BL, 4A, 4AL, 4B, 4BL, 4C, 4CL, 4D, 4DL, 10, 10L, 40, 4I;
- Physiology 1, 12, 67;
- Psychology 1B;
- Zoology 10

Mathematics:
- Economics 5;
- Engineering Technology 50;
- Mathematics 70, 75, 80, 90, 92, 95, 97, 100A, 100B, 110A, 110B, 110C, 115, 120, 125, 130;
- Philosophy 12A;
- Psychology 5

Note: See online catalog for an updated list of courses.

Social and Behavioral Sciences Emphasis (AS)
Associate in Science in Social and Behavioral Sciences

These courses emphasize the perspective, concepts, theories and methodologies of the disciplines typically found in the vast variety of disciplines that comprise study in the Social and Behavioral Sciences (see below). Students will study about themselves and others as members of a larger society. Topics and discussion to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate. Students pursuing this area of emphasis must take at least one course in the social sciences and at least one course in the behavioral sciences. Students should meet with a counselor to select appropriate courses.

Behavioral Sciences:
- Academic Achievement Personal Services 100
- Administration of Justice 59, 67;
- African American Studies 30, 31;
- Anthropology 2, 3, 3AC, 4, 5, 8, 11, 12, 15, 20, 25;
- Asian American Studies 8, 27, 35, 40, 42, 61, 62, 63;
- Broadcast Electronic Media Arts 101, 103, 105;
- Child Development 53, 67, 68, 97;
- Disabled Students Programs and Services 1;
- Fashion 28;
- Health Education 10, 30, 46, 54, 221;
- Interdisciplinary Studies 10D, 17, 37, 40, 45, 80A-G, 81B;
- Labor and Community Studies 78C, 91D;
- Latin American and Latino/a Studies 10;
- Lesbian/Gay/Bisexual/Transgender Studies 5, 10, 21, 24, 30, 50, 60;
- Philippine Studies 20, 30;
- Physical Education 13;
- Psychology 1, 2, 4, 10, 11, 14, 15, 17, 21, 22, 23, 25, 26, 40;
- Sociology 1, 2, 3, 25, 30, 35;
- Speech 5;
- Women’s Studies 25, 54

Social Sciences:
- Administration of Justice 57, 67;
- African American Studies 40, 55, 60;
- American Civilization 11A-B;
- American Studies 5;
- Asian American Studies 20, 22, 27, 30, 35;
- Asian Studies 1, 20;
- Biology 31;
- Broadcast Electronic Media Arts 104;
- Disabled Students Programs and Services 1;
- Economics 1, 3, 6, 10, 25, 30;
- Geography 4, 7;
- Health Education 5, 52, 110, 231;
- Interdisciplinary Studies 7, 28G, 29, 30, 37, 45, 100A;
- International Business 162;
- Labor and Community Studies 15, 70, 70A, 70B, 71A, 71B, 74, 78A, 78B, 85, 88, 96A-F, 100;
- Latin American and Latino/a Studies 1, 9, 11, 13, 14, 15;
- Lesbian/Gay/Bisexual/Transgender Studies 5, 9, 50;
- Political Science 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 18, 20, 22, 25, 30, 35, 45, 46, 47, 48, 53A;
Women’s Studies 25
Note: See online catalog for an updated list of courses.

Library Information Technology
Office: Rosenberg 517
Phone Number: (415) 452-5519
Web Site: www.ccsf.edu/libintec

Announcement of Curricula

General Information
The curricula in Library Information Technology aims to meet the needs of individuals seeking paraprofessional employment or advancement in a library or related information service agency; or those seeking an introduction to libraries and information services in anticipation of further study in library science.

The associate degree major complements requirements for graduation from the college, while the program leading to a certificate is designed for individuals transferring to a senior college or already possessing an academic degree.

Admission. Enrollment is open to all interested students.

Course of Study. The course of study includes instruction in library organization and services; standard reference materials; supervision; computer applications; the acquisition, processing, and cataloging of print and non-print materials, legal, medical and business resources, and practical experience in a library or resource center. Students are encouraged to augment study with courses from other college departments such as office systems, graphics, or computer networking and communications technologies.

Employment. As employment in the field is competitive, students should assume entry level work early in their studies. Those who complete the curriculum satisfactorily may find advantages when taking civil-service examinations with federal, state, county, and city agencies.

Degree Curriculum
The associate degree program is designed as an academic major for students satisfying requirements for graduation from City College.

Students completing the major requirements listed below and the other graduation requirements will receive the Associate in Science in Library Information Technology. General education, elective and advised courses will be selected according to the student’s educational and occupational objectives.

Library Information Technology Major (AS)

Courses Required for the Major in Library Information Technology

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBR 51 Intro to Libraries and Library Materials</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 55A Cataloging and Classification</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 55B Library Technical Processes</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 56 Computers in Libraries</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (6 units minimum)

<table>
<thead>
<tr>
<th>Electives</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBR 53 Information Resource Services</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 57 Internet Research Strategies</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 58A Legal Resources</td>
<td>1</td>
</tr>
<tr>
<td>LIBR 58B Medical Resources &amp; Libraries</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 58C Business Resources &amp; Libraries</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 59 Library Work Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units ................................................................18

Recommended: MABS 60 or WDPR 391A; and advised relevant courses in other college departments.

Certificate Curriculum
The certificate program is designed for students transferring to a senior college, or for those who already hold academic degrees.

A certificate of accomplishment will be awarded for completing 17 units (12 core units and minimum 5 elective units) in Library Information Technology with a cumulative grade of C or higher (2.00 grade-point average). Elective and/or additional advisory courses will be selected according to each student's educational and occupational objectives.

Library Information Technology Certificate

Courses Required for the Certificate of Accomplishment in Library Information Technology

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBR 51 Intro to Libraries and Library Materials</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 55A Cataloging and Classification</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 55B Library Technical Processes</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 56 Computers in Libraries</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (5 units minimum)

<table>
<thead>
<tr>
<th>Electives</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBR 53 Information Resource Services</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 57 Internet Research Strategies</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 58A Legal Resources</td>
<td>1</td>
</tr>
<tr>
<td>LIBR 58B Medical Resources &amp; Libraries</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 58C Business Resources &amp; Libraries</td>
<td>2</td>
</tr>
<tr>
<td>LIBR 59 Library Work Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units ................................................................17

Recommended: MABS 60 or WDPR 391A; and advised relevant courses in other college departments.

Announcement of Courses

Credit, Degree Applicable Courses:

LIBR 51. Introduction to Libraries and Library Materials (3)
Lec-3
An introduction to information media; functions and organization of libraries and learning resource centers; research tools; arrangement of books and files. Development of basic research skills to provide background essential for the library technician and the general student. CSU

LIBR 53. Information Resource Services (2)
Lec-2
Prereq.: LIBR 51
The study of the role of the Library Technician in the Public Service sector of the information industry. Manual and online circulation systems, statistical design and compilation, inventory control, reserve desk maintenance, supervision, personnel problem solving, the information desk, interviewing techniques, shelving, paging, design of information displays, and computer maintenance of records. CSU

LIBR 55A. Cataloging and Classification (3)
Lec-3
Prereq.: LIBR 51
Advise: MABS 38 or WDPR 391A
The study of cataloging and classification of information resources, including books, periodicals, audiovisual, computer software, CD-ROM and Internet materials. The manual process of cataloging
materials and the online network systems for copy cataloging. Use of the Dewey and Library of Congress classification schemes. CSU

LIBR 55B. Library Technical Processes (3)
Lec-3
Prereq.: LIBR 51
Advise: MABS 38 or WDP 391A
A continuation of LIBR 55A. The study of the applied aspects of technical services. Acquisitions; bibliographic verification and control; serials; bindery preparation; Interlibrary Loan; repair and maintenance of resources; library automation; and basic bookkeeping and budgeting techniques. CSU

LIBR 56. Computers in Libraries (3)
Lec-3
Prereq.: LIBR 51
Advise: MABS 38 or WDP 391A
Hands-on experience with microcomputers, accessing computer databases and microforms as used in information and resource centers. CSU

LIBR 57. Internet Research Strategies (2)
Lec-2
P/NP available
The Internet as a research tool. Use Internet access tools to identify appropriate sources for a given topic. Formulate search strategies and retrieve information. Compare information found on the Internet with that found in other library sources. CSU

LIBR 58A. Legal Resources and Libraries (1)
Lec-1
The study of the use of legal research tools. The use of printed resources and computerized search techniques is stressed. CSU

LIBR 58B. Medical Resources and Libraries (2)
Lec-2, field trips
The study of the use of library medical research tools and medical libraries for the library technician or student entering the health or medical fields. The use of printed, online, CD-ROM and Internet search techniques is stressed. CSU

LIBR 58C. Business Resources and Libraries (2)
Lec-2
The study of the use of business research resources and corporate, academic and public business collections. The use of print and computer accessed information is stressed. CSU

LIBR 59. Work Experience in Library Information Technology (3)
Conf-1, work-10
Prereq.: LIBR 51, 53, 55A, 55B, 56 OR APPROVAL OF LIBR WORK EXPERIENCE COORDINATOR
Repeat: max. 6 units
Supervised practice in local libraries; weekly conference for evaluation and discussion of the experience. CSU

LIBR 90. Topics in Library Technology (0.5 ea.)
Lec-9 (total hrs)
P/NP only
Repeat: May vary
Lectures, demonstrations, group discussions, and hands-on experiences pertaining to the duties of library/media personnel. Subject varies according to demand and timeliness. CSU

LIBR 90A. MARC Records and the Online Catalog.
Mathematics

geometry (length, area, perimeter), unit analysis, rates, ratios, average, percent, increase and decrease, and fractional parts of quantities. Formerly MATH EX.

MATH R. Basic Math and Prealgebra Workshop (2)
Conf-3
Coreq: MATH E1, E3, or MATH 35 or 835
Repeat: max. 8 units
A workshop designed to help students concurrently taking Basic Mathematics or Prealgebra. Basic Mathematics topics include: fundamental concepts and processes of arithmetic, translation of English statements to arithmetic statements and solution of applied problems. Prealgebra topics include: order of operations, signed numbers, integer exponents, simple equations and formulas, basic geometrical concepts of length and area, calculator usage, estimation, number sense and applications. Classwork may include small group activities, worksheets, and individualized exercises intended to improve study skills.

MATH S. Elementary Algebra Workshop (2)
Conf-4
Coreq: MATH 40 or 840
Fundamental operations on integers, rational numbers, polynomials, and algebraic expressions; linear and quadratic equations; linear inequalities; integer exponents and square roots; graphing; systems of equations; and applications.

MATH T. Applied Geometry Workshop (2)
Conf-3
Coreq: MATH 50 or 850
Standard results of geometry; calculations involving lines, triangles, polygons, circles, and solids; emphasis on applications.

MATH U. Intermediate Algebra Workshop (2)
Conf-3
Coreq: MATH 60 or 860
Polynomials and rational expressions; radicals and rational exponents; complex numbers; equations and inequalities; distance formula, lines, circles, parabolas; introduction to functions and graphs; introduction to exponential and logarithmic expressions; applications.

MATH 35. Prealgebra (3)
Lec-3, conf-2
Prereq: MATH E1 or E3 or BSMA G; OR Placement in MATH 35 or 835 or 40 or 840
Recommended for students who need additional preparation before taking MATH 40 or introductory courses in chemistry, physics, engineering technology, economics, or business.
Review of basic mathematics; measurement systems, length, area, volume, time, and unit conversions; order of operations, signed numbers, integer exponents, square roots, simple equations and formulas, proportions; calculator use, estimation, and number sense; introduction to statistics and data charts; applications.

Credit, Degree Applicable Courses:
MATH 40. Elementary Algebra (4)
Lec-4, conf-1
Prereq: MATH E1 or E3 or MATH 35 or 835; OR Placement in MATH 40 or 840
Operations on real numbers; evaluating, combining, and simplifying polynomials, rational expressions, integer-exponent expressions, and square root expressions; solving linear and quadratic equations, linear inequalities, and systems of linear equations; graphing lines; and applications. Attention to developing proficiency in communication of mathematics, problem solving, and effective learning skills.

MATH 45X. Preparation for Statistics (5)
Lec-4, conf-2
Prereq: MATH E1 or MATH E3 or MATH 35 or 835
Accelerated preparation for transfer-level statistics. Principles of arithmetic, pre-algebra, elementary and intermediate algebra, descriptive statistics. Rations, rate, and proportional reasoning; fractions, decimals and percents; evaluating expressions; analyzing algebraic forms of statistical measures; modeling bivariate data with linear and exponential functions; graphical and numerical descriptive statistics for quantitative and categorical data.

The Mathematics Department offers two geometry courses: (1) MATH 50 emphasizes problem solving and applications, and (2) MATH 55 emphasizes proofs and the logical structure of geometry but includes problem solving and applications. Students intending to study advanced algebra, trigonometry, or calculus should take MATH 55.

MATH 50. Applied Geometry (3)
Lec-3
Prereq: MATH 40 or 840; OR Placement in MATH 50 or 850
Not open for credit to students who have passed MATH 55 or 855.
Points, lines, angles, polygons, special triangles and quadrilaterals, circles, and solids; metric and U.S. customary measurement systems; emphasis on calculations and applications of perimeter, area, volume, similar triangles, and the Pythagorean Theorem.

MATH 55. Geometry (4)
Lec-4, conf-1
Prereq: MATH 40 or 840; OR Placement in MATH 55 or 855
Lines, triangles, quadrilaterals, polygons, circles; congruent triangle and similar triangle proofs; geometric constructions; right triangle trigonometry; analytic geometry; three-dimensional geometry.

MATH 60. Intermediate Algebra (4)
Lec-4, conf-1
Prereq: MATH 40 or 840; OR Placement into MATH 60 or 860
Advise: MATH 50 or 850 or 55 or 855
Polynomials and rational expressions; radicals and rational exponents; complex numbers; equations and inequalities; systems of linear equations; distance formula, lines, circles, and parabolas; introduction to functions; introduction to exponential functions and logarithms; and applications. Emphasis on strengthening mathematical communication skills, problem solving skills, and use of multiple representations of functions.

MATH 70. Mathematics for Liberal Arts Students (3)
Lec-3
Prereq: MATH 60 or 860 or Placement in MATH 70
Concepts of mathematics for students with nontechnical goals. Topics include problem solving, set theory, logic, number theory, modeling with functions, geometry, finance, combinatorics, probability, and the role of mathematics. CSU/UC

MATH 75. Mathematical Analysis for Business (3)
Lec-3
Prereq: MATH 92 or 60 or 860
Linear, quadratic, algebraic, exponential, and logarithmic functions with applications to business and economics; interest and ordinary annuity problems; introduction to differential and integral calculus of one variable with applications to business and economics. CSU/UC
MATH 80. Probability and Statistics (4)
Lec-4
Prereq.: MATH 92 or 60 or 860
Descriptive statistics: organization of data, sample surveys, experiments and observational studies; measures of central tendency, dispersion, and association; linear regression and correlation. Probability theory. Random variables: expected value, variance, independence, probability distributions, normal approximation. Sampling, sampling distributions, and statistical inference: estimating population parameters, interval estimation, standard tests of hypotheses. Applications. CSU/UC

MATH 90. Advanced Algebra (4)
Lec-4, conf-1
Prereq.: MATH 60 or 860 AND MATH 50 or 850 or 55 or 855
Not open for credit to students who have passed MATH 92.
Real functions and their graphs; one-to-one and inverse functions; exponential and logarithmic functions; complex numbers and zeros of polynomials; linear systems and matrices; geometric transformations and conic sections; topics in discrete mathematics. CSU/UC

MATH 92. College Algebra (5)
Lec-5
Prereq.: MATH 40 or 840 AND MATH 50 or 850 or 55 or 855; OR Placement in MATH 92
Recommended for students with strong mathematics capabilities. Not open for credit to students who have passed MATH 90.
Polynomials and rational expressions; radicals and rational exponents; complex numbers; equations and inequalities; distance formula, lines, and circles; geometric transformations and conic sections; real functions and their graphs; one-to-one and inverse functions; roots of polynomials; linear systems and matrices; topics in discrete mathematics. CSU

MATH 95. Trigonometry (3)
Lec-3
Prereq.: MATH 92 or 60 or 860; AND MATH 50 or 850 or 55 or 855
Advise: Students completing MATH 60 should also complete MATH 90 before taking MATH 95. Students are also advised to take MATH 55, rather than MATH 50
Trigonometric functions and their graphs; trigonometric identities and equations; inverse trigonometric functions; solving triangles; complex numbers. CSU

MATH 97. Precalculus (5)
Lec-5
Prereq.: MATH 95; AND MATH 90 or 92; AND MATH 50 or 850 or 55 or 855
An intensive, comprehensive review for students who have successfully completed trigonometry and advanced algebra but need review before beginning a calculus course.
Polynomials and rational expressions; radicals and rational exponents; complex numbers; equations and inequalities; distance formula, lines, and circles; geometric transformations and conic sections; real functions and their graphs; one-to-one and inverse functions; roots of polynomials; circular (trigonometric) functions, identities, and equations; graphs of circular functions; arcfunctions (inverse trigonometric functions); triangles; linear systems and matrices; topics in discrete mathematics. CSU/UC

The Mathematics Department offers two calculus sequences:

1) The sequence MATH 100A-B-C is designed for majors requiring a strong foundation in calculus, for example, mathematics, physical science, computer science, and engineering.

2) The sequence MATH 100A-B is designed for majors requiring exposure to calculus, for example, business, social science, and some life sciences.

NOTE: Calculus requirements vary depending on the transfer institution and the intended major. Students should consult the CCSF Transfer Center or their intended transfer institution to determine which calculus sequence fulfills their needs.

MATH 100A. Short Calculus I (3)
Lec-3
Prereq.: MATH 95; AND MATH 90 or 92; AND MATH 50 or 55
Lines, algebraic functions, exponential functions, logarithmic functions, limits, derivatives, and integrals, with applications. CSU/UC

MATH 100B. Short Calculus II (3)
Lec-3
Prereq.: MATH 100A
Calculus of trigonometric functions, techniques of integration, Taylor polynomials, multivariable calculus, and differential equations, with applications. CSU/UC

MATH 110A. Calculus I (4)
Lec-4, conf-1
Prereq.: MATH 95; AND MATH 90 or 92; AND MATH 50 or 55
Limits, continuity, differentiation, applications of differentiation, and an introduction to integration. CSU/UC (C-ID MATH 210)

MATH 110B. Calculus II (4)
Lec-4, conf-1
Prereq.: MATH 110A
Applications of integration, techniques of integration, numerical integration, indeterminate forms, improper integrals, parametrized curves, polar coordinates, infinite sequences and series, and power series. CSU/UC (C-ID MATH 220; C-ID MATH 900S= MATH 110A + MATH 110B)

MATH 110C. Calculus III (4)
Lec-4, conf-1
Prereq.: MATH 110B
Vectors, curves and surfaces in 3-dimensional space, differentiation of multivariate functions, line and surface integrals, and in particular, the theorems of Green, Stokes, and Gauss. CSU/UC (C-ID MATH 230)

MATH 115. Discrete Mathematics (3)
Lec-3
Prereq.: MATH 110B or 100B
Set theory, logic, relations and functions, mathematical induction and recursion, combinatorics, discrete probability, trees and graphs, analysis of algorithms, algebraic structures. Emphasis on topics of interest to mathematics and computer science students. CSU/UC

MATH 120. Linear Algebra (3)
Lec-3
Prereq.: MATH 110C
Real vector spaces, subspaces, linear dependence and span, matrix algebra and determinants, basis and dimension, inner product spaces, linear transformations, eigenvalues and eigenvectors, proofs of basic results. CSU/UC (C-ID MATH 250)

MATH 125. Differential Equations (3)
Lec-3
Prereq.: MATH 110C
Ordinary differential equations and first order linear systems of differential equations; methods of explicit solution; qualitative methods
for the behavior of solutions; theoretical results for the linear structure, existence, and uniqueness of solutions. CSU/UC (C-ID MATH 240)

MATH 130. Linear Algebra and Differential Equations (5)
Lec-5
Prereq.: MATH 110C

MATH 199. Special Topics in Mathematics (3)
Lec-3
Prereq.: Varies with course content
Repeat: max. 9 units
The content of this course varies. CSU(UC upon review)

Military Science

The University of San Francisco is part of the Consortium of San Francisco Colleges and Universities. Students attending a member of the consortium may enroll in a Military Science course at the University of San Francisco under that agreement at no cost. Full credit will be given by City College of San Francisco to fully enrolled students. Specific inquiries about this program should be directed to the Professor of Military Science, University of San Francisco.

Air Force ROTC is offered through the Aerospace Studies department at U.C. Berkeley. Scholarships (including tuition, book allowance, and stipend) are available for qualified students. Students may enroll and attend one course per semester at the U.C. Berkeley campus at no cost. Topics covered in AFROTC courses include Basic Military knowledge (1-credit), Military History (1-credit), Leadership Training (3-credits), and U.S. National Security Affairs and Preparation for Active Duty (3-credits). Additional components of the ROTC program include 3 hours per week of fitness activities, 2 hours per week of Leadership Lab, and a 4-week Summer Field Training. Upon completion of the program and granting of 4-year degree, students will commission as Second Lieutenants in the United States Air Force. To be eligible for AFROTC, applicants should be a full time student and meet additional fitness, GPA, testing, and other requirements. Interested students are encouraged to enroll in at least one of the Music Department performing groups each semester. Knowledge of music fundamentals and the ability to read music are recommended for many music theory, instrumental and vocal training, and performance courses. Where a music course has a sequential prerequisite, check with the Department Chair for skill demonstration equal to the prerequisite.

Credit, Degree Applicable Courses:

Music Theory

The MUS 2A-2B-2C-2D series is a four-semester comprehensive theory program for music students which will transfer as fulfillment of the first two years of lower-division music theory requirements. The MUS 1A-1B, 3A-3B series is a two-semester ear-training and harmony program for music students which will transfer as fulfillment of one year of lower-division music theory requirements.

MUS 1A-1B. Musicianship (2-2)
Lec-3, lab-1, field trips

Advise: MUS 1A: MUS 4 OR DEMONSTRATION OF EXIT SKILLS
Repeat: max. 4 units ea.

Development of skills in sight reading, ear training, and notation through the study of scales, intervals, and simple songs. CSU/UC

MUS 2A-2B. Comprehensive Music Theory (5-5)
Lec-5, lab-1, field trips

Advise: MUS 4 OR DEMONSTRATION OF EXIT SKILLS
May be taken in any sequence.
The first half of a four-semester comprehensive approach to the chronological study of music theory. Covers music in the style of the medieval, renaissance and baroque eras. Daily sessions involve modal, contrapuntal or harmonic studies and exercises, ear training and musical analysis with the goal of integrating these studies in reference to historical periods. Extensive written assignments are required. CSU/UC

MUS 2C-2D. Comprehensive Music Theory (5-5)
Lec-5, lab-1, field trips

Advise: MUS 4 OR DEMONSTRATION OF EXIT SKILLS
May be taken in any sequence.
The second half of a four-semester comprehensive approach to the chronological study of music theory. Covers music in the style of the classic, romantic and modern eras. Daily sessions involve modal, contrapuntal or harmonic studies and exercises, ear training and musical analysis with the goal of integrating these studies in reference to historical periods. Extensive written assignments are required. CSU/UC

MUS 3A-3B. Harmony (3-3)
Lec-3, lab-1, field trips

Advise: MUS 3A: MUS 4 OR DEMONSTRATION OF EXIT SKILLS
A music-writing course based on traditional harmony, including linear and vertical analysis. CSU/UC

MUS 4. Music Fundamentals (2)
Lec-3, lab-1, field trips

Repeat: max. 4 units
An introduction to basic skills in music, including staff notation, rhythmic notation, intervals, scales, chord construction, sight reading, and ear training. CSU/UC

MUS 5A-5B. Composition (3-3)
Lec-3, field trips

Advise: MUS 5A: MUS 3A OR DEMONSTRATION OF EXIT SKILLS
Study of the principles of musical composition through analysis and creative writing. Pieces may be composed for piano and/or small instrumental and/or vocal ensembles. CSU/UC

Multimedia Studies

See Graphic Communications Department

Music

Office: Art 209
Phone Number: (415) 239-3641
Web Site: www.ccsf.edu/music

Announcement of Courses

All music students are encouraged to enroll in at least one of the Music Department performing groups each semester. Knowledge of music fundamentals and the ability to read music are recommended for many music theory, instrumental and vocal training, and performance courses. Where a music course has a sequential prerequisite,
Instrumental and Vocal Training

MUS 6A. Elementary Classical Guitar (1)
Lec-3, field trips P/NP available
Advise: MUS 4 or demonstration of exit skills
Repeat: max. 2 units
No prior experience with the guitar necessary. The student must provide a guitar.
An introduction to the music and technique of the acoustical guitar. A foundation with emphasis on classical techniques. Some review of musical theory. CSU/UC

MUS 6B. Intermediate Classical Guitar (1)
Lec-3, field trips P/NP available
Advise: MUS 6A or demonstration of exit skills
Repeat: max. 4 units
A continuation of MUS 6A. Further study of acoustical guitar theory, technique, and repertoire with emphasis on classical guitar. CSU/UC

Music 7 Series
(The letter after the 7 indicates the instrument, not the sequence.)
The Music Department recommends that students enrolling in any of the courses in the MUS 7 series enroll concurrently in appropriate music performance courses such as concert band (MUS 16), stage band (MUS 46), pep band (MUS 47), orchestra (MUS 15), string ensemble (MUS 20), brass ensemble (MUS 18), or woodwind ensemble (MUS 17).

MUS 7C. Cello (1)
Lec-3, field trips P/NP available
Repeat: max. 4 units
An exploration of the elements of cello playing, including bowing concepts and techniques, tone production, and left-hand techniques. Open to beginners as well as to others at any level of proficiency. CSU/UC

MUS 7P. Percussion (1)
Lec-3, field trips P/NP available
Repeat: max. 4 units
The study and technique of playing various percussion instruments. CSU/UC

MUS 7T. Brass (1)
Lec-3, field trips P/NP available
Repeat: max. 4 units
Basic brass techniques for intermediate or advanced players. Embouchure problems, breathing methods, and tone production. CSU/UC

MUS 7V. Violin and Viola (1)
Lec-3, field trips P/NP available
Advise: MUS 4 or demonstration of exit skills
Repeat: max. 4 units
Violin or viola training for beginning, intermediate, and advanced players. CSU/UC

MUS 7W. Woodwind (1)
Lec-3, field trips P/NP available
Repeat: max. 4 units
The study and techniques of playing various woodwind instruments. CSU/UC

MUS 8A-8B. Jazz and Other Popular Piano Styles (1-1)
Lec-3, field trips P/NP available
Advise: MUS 9A or demonstration of exit skills
Repeat: for MUS 8A: max. 2 units; for MUS 8B: max. 3 units
A study of basic jazz, rock, gospel, blues, and folk piano techniques. CSU/UC

MUS 9A. Beginning Piano (2)
Lec-3, lab-1, field trips P/NP available
Repeat: max. 4 units
Piano studies for the beginner, including playing through reading, elementary theory, beginning ear training, and an historical view of keyboard instruments and their music. CSU/UC

MUS 9B. Intermediate Piano (1)
Lec-3, field trips P/NP available
Advise: MUS 9A or demonstration of exit skills
Repeat: max. 4 units
A continuation of piano training for beginning, intermediate, and advanced pianists. CSU/UC

MUS 9C. Keyboard Harmony (1)
Lec-3, field trips P/NP available
Advise: MUS 9A or demonstration of exit skills
Repeat: max. 4 units
The development of harmonic keyboard skills through the study and practice of chord structures, progressions, and sight reading techniques. CSU/UC

Music 10 Series
The Music Department recommends that students enrolling in the MUS 10 series should enroll concurrently in a choral-performing group (MUS 12 or 14) or Music Theatre Workshop (MUS 44).

MUS 10A. Beginning Voice (1)
Lec-3, field trips P/NP available
Repeat: max. 2 units
Study of the basic techniques of tone production, breathing, and related skills in interpreting vocal music of various periods and styles, including popular. CSU/UC

MUS 10B. Intermediate Voice (1)
Lec-3, field trips P/NP available
Advise: MUS 10A or demonstration of exit skills
Repeat: max. 4 units
A continuation of vocal training for intermediate and advanced singers. Emphasis on the development of vocal techniques and the interpretation of songs of various styles and periods. CSU/UC

Performance Courses

MUS 11. Guitar Workshop (1)
Lec-3, field trips P/NP available
Advise: MUS 6A or demonstration of exit skills
Repeat: max. 4 units
An opportunity for guitarists to learn and to play ensemble music from all stylistic periods—Renaissance, Baroque, Classical, Romantic, and especially twentieth century. An opportunity to play in guitar duos, trios, quartets, and, when possible, with other instruments. CSU/UC
MUS 12. Choir (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
Study and performance of fine choral music, sacred and secular, from all periods of music history. CSU/UC

MUS 13A. Jazz/Rock Improvisational Workshop (2)
Lec-3, field trips  P/NP available
Repeat: max. 8 units
Study of a variety of jazz, rock, and blues styles. Emphasis on learning the techniques of arranging and composing. CSU/UC

MUS 13B. Jazz/Rock Arranging and Composition Workshop (2)
Lec-3, field trips  P/NP available
Advise: MUS 3A or demonstration of exit skills
Repeat: max. 8 units
Study of a variety of jazz, rock, and blues styles. Emphasis on learning the techniques of arranging and composing. CSU/UC

MUS 14. Chorale (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
Study and performance of choral music for small ensembles. Public performances both on and off campus. CSU/UC

MUS 15. Orchestra (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
An opportunity for string, woodwind, brass, and percussion players to rehearse and perform works selected from the standard repertory from the baroque through the present. CSU/UC

MUS 16. Concert Band (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
Study and performance of concert band and wind ensemble literature of various stylistic periods. CSU/UC

MUS 17. Woodwind Ensemble (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
Study and performance of woodwind ensemble techniques of all stylistic periods. CSU/UC

MUS 18. Brass Ensemble (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
Study and performance of brass ensemble techniques of all stylistic periods. CSU/UC

MUS 19. Piano Ensemble and Repertoire (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
Performance of four-hand, two-piano, and solo literature from all stylistic periods. Study of accompanying skills and use of these whenever possible in performances. Monthly public recitals. CSU/UC

MUS 20. String Ensemble (1)
Lec-3, field trips  P/NP available
Repeat: max. 4 units
An exploration of techniques and ensemble literature appropriate for intermediate and advanced violinists, violoncellists, and string bass players. Performances may be scheduled. CSU/UC

MUS 21. Traditional African Music (3)
Lec-3, field trips  P/NP available
A survey of the function of traditional music in Africa and how it is organized as an integral part of everyday activity. Emphasis is on practical application. CSU/UC

MUS 22A-22B-22C. History of Music in Western Culture (3-3-3)
Lec-3, lab-1, field trips  P/NP available
May be taken in any sequence.
An intensive critical survey of musical styles in Western culture studied chronologically. Emphasis on works and composers representative of differing styles and periods and on various cultural contexts from which they emerged. CSU/UC

MUS 22A. Medieval and Renaissance Music: Early Christian Chant to 1600
MUS 22B. Baroque and Classical Music: the Seventeenth and Eighteenth Centuries
MUS 22C. Nineteenth Century Romanticism: Beethoven to Mahler
For music of the twentieth century, see MUS 28.

MUS 23. Jazz History, Musical Traditions of the African American (3)
Lec-3, lab-1, field trips  P/NP available
Lectures, discussions, assigned reading, and listening designed to explore the musical heritage of the African American, including spirituals, work songs, blues, jazz, gospel, opera, and symphony. Interaction of these with traditional American and European music. CSU/UC

MUS 24. Music of East Asia (3)
Lec-3, lab-1, field trips  P/NP available
A cross-cultural, comparative survey of both historical and recent developments in the music of China, Japan, and Korea, including the relationship of East Asian music to other aspects of East Asian cultures—philosophy, religion, theater, and dance. CSU/UC

MUS 25. Music of Latin America and the Caribbean (3)
Lec-3, lab-1, field trips  P/NP available
Survey of Latin American and Caribbean music. Music as a form of communication and as a social and cultural force in the Americas. CSU/UC

MUS 26. Music in American Culture (3)
Lec-3, lab-1, field trips  P/NP available
A survey of music generated by America’s diverse populations including Latino, African American, Hawaiian, Native American, Cajun and Puerto Rican. CSU/UC

MUS 27A. Music Appreciation (3)
Lec-3, lab-1, field trips  P/NP available
The development of increased musical awareness in the listener. A study of musical elements, forms, and styles through listening, lectures, readings, and discussions. CSU/UC

MUS 27B. Musical Awareness (3)
Lec-3, lab-1, field trips  P/NP available
MUS 27A is not prerequisite for MUS 27B.
Repeat: max. 9 units
Detailed study of selected larger musical forms such as the opera, symphony, concerto, and chamber works. Assigned listening and readings. CSU/UC
MUS 27C. Music and Queer Identity (3)
Lec-3, field trips P/NP available
Examination of the question of how music encodes “queerness” by focusing on various musical styles and musical performers that have become significant for the lesbian, gay and bisexual community. CSU/UC

MUS 27R. The History of Rock and Popular Music (3)
Lec-3, lab-1, field trips P/NP available
The History of Rock and Popular Music is a survey of the origin, major trends, musical forms, styles and genres of rock and popular music from 1945 to the present day. The course will focus on historical and cultural influences that shaped the music as well as the impact of electronic technology. Attention will be given to those artists and groups who have proven to be of the most enduring significance. CSU/UC

MUS 27T. Exploring the World of Music (2)
Lec-1.5, field trips P/NP available
Designed to develop an understanding and recognition of musical elements and forms while promoting a broad international cultural music awareness. The series allows students to examine theories on the origins of music making and the role of music in all cultures. Music structure will be studied with an emphasis on how music inspires human emotion, activity, romance, religion and play. CSU/UC

MUS 28. Contemporary Music (3)
Lec-3, lab-1, field trips P/NP available
Study of the music of the twentieth century through analysis of their means and methods, recordings illustrating the types of music under discussion and creative projects involving graphic scores, tapes and new instruments. CSU/UC

MUS 29. Electronic Music (3)
Lec-3, lab-1, field trips P/NP available
A practical study of the means by which electronic music is created, its compositional techniques, and the uses to which it may be put. CSU/UC

MUS 30. Electronic Music Laboratory (2)
Lec-3, lab-3, field trips P/NP available
Prereq.: MUS 29
Repeat: Max. 8 units
Further practical study of the technical aspects of electronic music, including compositional techniques of synthesis, multitrack recording and digital sequencing. CSU/UC

MUS 31. Digital Music Studio (3)
Lec-3, lab-2, field trips P/NP available
Prereq.: MUS 30
Repeat: Max. 6 units
Practical study of the digital music studio, including the functions of hardware and software tools for composition, sequencing, notation, and digital audio recording. Creation and editing digital music files and exploration of current practical applications of the medium. CSU

Other Music Performance Courses

MUS 41. African Drumming Ensemble (1)
Lec-3, field trips P/NP available
Repeat: Max. 4 units
The content of this course varies. Students may re-enroll without repeating subject matter.
African drumming studies and performance of music integral to everyday life in Africa. A review of the function of traditional music in Africa. CSU/UC

MUS 42. Jazz, Pop, Gospel Choir (1)
Lec-3, field trips P/NP available
Repeat: Max. 4 units
Study and performance of popular, gospel, or jazz and swing choir arrangements with rhythm section. CSU/UC

MUS 43. Labor Heritage Chorus (1)
Lec-3, field trips P/NP available
Repeat: Max. 4 units
Study and performance of labor songs from various periods in American history. Songs that reflect workers of diverse cultures, such as Native American chants, folk and labor ballads, field hollers, Black cowboys songs, Chicano farm and border songs, labor Motown, Asian American work songs and working women’s rap. CSU/UC
MUS 43 = LBCS 93C

MUS 44. Music Theatre Workshop (3)
Lec-6, field trips P/NP available
Repeat: Max. 9 units
An opportunity for students interested in musical theatre to study, rehearse, and participate in performances of musical works for the stage. Equal emphasis given to the musical and dramatic elements involved in such productions. For staged, public performances, roles may be assigned subject to audition. CSU/UC

MUS 45. Early Music Performance Workshop (2)
Lec-3, lab-1, field trips P/NP available
Repeat: Max. 8 units
An investigation of musical performance styles from the late Middle Ages through the Baroque. Students work and perform in an area of their choice. CSU/UC

MUS 46. Stage Band (1)
Lec-3, field trips P/NP available
Repeat: Max. 4 units
Reading, preparation, and playing of music arranged for dance bands, with emphasis on jazz. CSU/UC

MUS 47. Pep Band (1)
Lec-3, field trips P/NP available
Repeat: Max. 4 units
Rehearsal band for music of all popular styles. Performances at various athletic events. CSU/UC

MUS 48A. Beginning Labor Heritage Chorus (1)
Lec-3, field trips P/NP available
Repeat: Max. 2 units
The beginning study is an introduction to the songs that reflect workers of diverse cultures such as Native American chants, folk and labor ballads, field hollers, Black cowboy songs, Chicano farm and border songs, Labor Motown, Asian-American work songs and songs of working women's experiences. CSU/UC
MUS 48A = LBCS 98A

MUS 48B. Intermediate Labor Heritage Chorus (1)
Lec-3, field trips P/NP available
Prereq.: LBCS 98A/MUS 48A
Repeat: Max. 4 units
Intermediate Labor Chorus is designed to further develop choral music techniques and knowledge of labor songs from various periods in American history, as presented in LBCS 98A/MUS 48A. Students will develop more complex choral techniques and repertoire. Increased
focus will be on individual achievement and its effect on the progress of the chorus. CSU/UC
MUS 48B = LBCS 98B

MUS 48C. Advanced Labor Heritage Chorus (1)
Lec-3, field trips P/NP available
Prereq.: LBCS 98B/MUS 48B
Repeat: max. 4 units
Advanced Labor Chorus focuses on the development of a self-directed
creative process and autonomy. Building on the concepts, skills and
musical material of LBCS 98B/MUS 48B, students will become section
leaders, soloists and conductors. CSU/UC
MUS 48C = LBCS 98C

MUS 50. Music Rehearsal and Performance (1)
Lec-3 P/NP available
Coreq.: Enrollment in a music instrumental training or performance course
Repeat: max. 4 units
An opportunity for students who are enrolled in music courses requiring
extra performance and rehearsal hours to receive credit for their work. CSU/UC

Nursing, Registered
Office: Cloud 340
Phone Number: (415) 239-3218
Web Site: www.ccsf.edu/rn

Announcement of Curricula
General Information
1. Individual Nursing Courses are not open for individual
   enrollment.
2. Prerequisites must be completed prior to filing of enrollment
   application.
3. At present, qualified applicants are admitted per lottery.
4. Students will be conditionally admitted to the R.N. Nursing
   program. These students will be required to submit to a back-
   ground screening check, health+immunization report, and
   current CPR for healthcare providers
5. Students will be required to take ATI TEAS or submit previous
   ATI TEAS scores (or equivalent)

Learning Outcomes
1. Prepare student to take NCLEX-RN.
2. Qualify for entry level positions of RN in health facilities and
   agencies.
3. Ability to deliver effective nursing care to the patient by utilizing
   their acquired skills in problem solving and leadership.

Degree Curriculum
The Associate in Science curriculum in Nursing is accredited by the
California Board of Registered Nursing (BRN). Students who complete
the course of study in accordance with City College requirements
are eligible to take the National Council Licensure Examination of
Registered Nurses (NCLEX-RN). Those who pass the NCLEX-RN
are qualified for entry-level positions of R.N. in health facilities and
agencies.

NOTE: The licensing process for becoming a registered nurse in
California is under the jurisdiction of the BRN (Board of Registered
Nursing). The BRN requires disclosure of all misdemeanor and felony

convictions for all license applicants and disclosure of all disciplinary
actions taken against a license applicant who already has a practical
nurse, vocational nurse or other professional license. Fingerprinting is
also required.

Course of Study. The Nursing course of study includes instruction in
applied nursing science and related life sciences, and clinical expe-
rience in San Francisco Bay Area cooperating clinical settings. The
required course of study for Nursing includes courses that may also
satisfy certain general education requirements.

Associate in Science Degree. The Nursing curriculum, supplemented
by general education courses, is designed so that students may satisfy
the requirements for graduation from City College with the degree of
Associate in Science. It is required that all students who wish to enroll
in the Nursing Program take the CCSF placement test in Algebra.

Enrollment. Enrollment in the Nursing Program follows the City
College policy of equal educational opportunity. Because of facility
and staffing limitations, as well as health and safety requirements, not
all students who wish to enroll in the Nursing Program can be accom-
modated. Selection from among students who are eligible to enroll is
made once a year for Fall and Spring semester.

Requests for information regarding enrollment:
Can be found online: www.ccsf.edu/rn
OR
Enrollment Committee
Nursing Department, C340
City College of San Francisco
50 Phelan Avenue
San Francisco, CA 94112

Dates for Filing Required Enrollment Forms. See website or contact
Nursing Department at C340 for current filing dates.

Expenses. Students should expect to incur expenses of approximately
$2500 covering the two years of nursing curriculum. This does not
include expenses that may relate to non-nursing classes. The expenses
related to nursing classes include the cost of required books, uniforms,
and individual equipment.

Enrollment to the Program. Because of facilities and staff limita-
tions, 50 new students may be enrolled in the Nursing Program each
semester.

Nursing enrollment form available online. Please check filing date. To
be considered for enrollment, students must satisfy certain academic
prerequisites. The following is a summary of the academic require-
ments for enrollment in the Nursing Program/ courses. Please see
website:
www.ccsf.edu/rn

1. Complete the following prerequisite courses: No in progress
   courses will be considered
   Anatomy 25*
   Physiology 1* or 12*
   Microbiology 12*
   English 1A*
   Math 40 or placed into Math 60
Science courses must have been completed within the last 7
years at the time of enrollment to the Nursing program.
*Must have an overall GPA of 2.5 in science courses and
English 1A.
2. An applicant can repeat only one of the science courses. More than one (1) repetition of any of the science courses will disqualify the applicant.

Repetition of a science course is defined as repeating a course due to a previous grade of “D”, “F” or “W”. Students may satisfy the above course prerequisites at other institutions, but the courses and grades must be verified prior to consideration for enrollment.

3. File with the Office of Admissions and Records a completed application for admission to City College. No person may attend nursing classes unless he/she is properly admitted to the College.

4. If you have taken English 1A and Math 40 (Elementary Algebra) or higher at CCSF; you must submit official transcript with your application which includes your final grade in English 1A and Math 40 or higher.

b. If you have never taken any college math at any college, you must take the CCSF Math Placement test and score at Math 60 or higher. Submit test result with nursing application.

c. Applicants may waive Math placement testing if they have completed prerequisite English and math courses at other colleges or received specific standardized test scores, e.g. SAT, AP. (See “Placement Test Waiver.”) Submit proof (transcripts or score) with the Placement Test Waiver Form to the Matriculation Office, Conlan Hall 204. The Approved Test Waiver Form must accompany your Nursing application.

5. File a completed enrollment form for the Nursing Program. Contact Nursing Department for filing dates.

6. Official transcript in a sealed envelope must be submitted with the enrollment form.

7. Previous ATI TEAS (or equivalent). ATI TEAS will also be administered to those by lottery.

**Health and safety requirements.** Nursing courses require students to practice nursing skills in the classroom and in cooperating clinical settings. For health and safety reasons, those accepted into the program must demonstrate through a recent, complete medical examination that they are able to participate in the program, have been tested for tuberculosis, and that they have received the following: rubeola, rubella, varicella, mumps, hepatitis B vaccinations and antibody titers which demonstrates immunity to those diseases, current Tetanus/Diptheria/Pertussis, Seasonal Influenza vaccine. Enrollees must also provide verification of cardiopulmonary resuscitation basic life support, Health Care Provider certification. Verification of these requirements must be received by the Nursing Department prior to the first day of class. Some hospitals may require students assigned to their hospital to submit to criminal background check and drug screen.

Admission of LVNs, transfer nursing students and RN requirements for BRN of California:

1. LVNs with current, valid California licenses who have been accepted into the Nursing Program through the usual enrollment process may be given advance placement based on space availability and passing grade of Fundamental Challenge exam or completion of Nursing 50T (LVN to RN Transition course) when available. Please contact the Department Chairperson for further information and counseling.

2. LVN nurses who wish to take the 30-unit option program must have a current, valid California LVN license and must have completed Microbiology 12 and Physiology 1 or 12 with a grade of C or higher. Students who qualify for this option should make an appointment with the Nursing Department Chairperson for additional information. 30 unit option placement is on a space available basis.

3. **a.** Transfer students from other accredited RN nursing programs are considered for enrollment in the Nursing Program. Acceptance is based on equivalent professional nursing education, general education courses and space availability. Transfer students must meet the same enrollment requirements and nursing policies as all students entering the program.

**b.** All transfer applicants must have a letter from their previous school of nursing director that states that student was in good standing at the time of withdrawal.

4. RNs who need specific courses required by the BRN for the NCLEX-RN examination should contact the Department Chairperson for additional information. Enrollment is on a space available basis only.

**Credit by Examination.** All nursing courses are challengeable. Consideration for challenge will be based on previous education and/or experience on an individual basis.

**Academic Probation and Dismissal.** All City College students, including Nursing students, are subject to the Rules of Student Conduct, and must conform their behavior to appropriate standards, both during theory classes and during clinical experiences at cooperating clinical settings. Failure of a nursing student to satisfactorily demonstrate mastery of required knowledge, skills, or abilities that may jeopardize the safety and welfare of others. Depending on the nature of the performance that demonstrates the lack of necessary knowledge, skills, or abilities, students may be placed on clinical probation or may be subject to academic dismissal prior to the end of the semester.

### Registered Nursing Major (AS)

**Courses Required for the Major in Registered Nursing**

#### A. Nursing Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>Option 1: Generic Admission:</td>
<td></td>
</tr>
<tr>
<td>NURS 50 Fundamentals of Nursing</td>
<td>6</td>
</tr>
<tr>
<td>NURS 50A Pharmacology in Nursing Part I</td>
<td>2</td>
</tr>
<tr>
<td>NURS 50L Nursing Skills Lab</td>
<td>1</td>
</tr>
<tr>
<td>Option 2: LVN Transition:</td>
<td></td>
</tr>
<tr>
<td>NURS 50T LVN to RN Transition</td>
<td>2</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>NURS 50B Pharmacology in Nursing Part II</td>
<td>2</td>
</tr>
<tr>
<td>NURS 51 Basic Medical Surgical Nursing</td>
<td>6</td>
</tr>
<tr>
<td>NURS 51L Intermediate Nursing Skills</td>
<td>1</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>NURS 53 Maternal and Newborn Care</td>
<td>6</td>
</tr>
<tr>
<td>NURS 55 Psychosocial Nursing</td>
<td>6</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>NURS 54 Nursing of Children</td>
<td>6</td>
</tr>
<tr>
<td>NURS 56 Adv Medical Surgical Nursing</td>
<td>6</td>
</tr>
<tr>
<td>NURS 58 Trends &amp; Issues in Nursing</td>
<td>1</td>
</tr>
</tbody>
</table>

#### B. Additional Courses Required By The Board Of Registered Nursing (9 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1 Gen Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1 Intro Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>
SPCH 1A Elements of Public Speaking  
or SPCH 4 Group Communication  
or SPCH 11 Basic Public Speaking  
or SPCH 12 Fundamentals of Oral Communication  
or SPCH 20 Interpersonal Communication  
or ESL 79 Advanced Speaking & Pronunciation  

Total: 45–52

These courses meet the California Board of Registered Nursing Requirement for Licensure and must be completed prior to taking the R.N. Licensure Examination (NCLEX).

Students who have a baccalaureate degree from a regionally accredited institution may receive the Associate in Science Degree in Nursing by completing the Nursing program prerequisite courses and the courses listed above. No additional General Education coursework is required.

Board of Registered Nursing. All students should familiarize themselves with all requirements for taking the NCLEX-RN. Completion of the Nursing Department curriculum does not guarantee passage of the NCLEX-RN or eligibility for a California State RN license.

Announcement of Courses
Credit, Degree Applicable Courses:
NURS 50. Fundamentals of Nursing (6)  
Lec-51, lab-153 (total hrs)  
Prereq.: Admission to the RN Nursing Program with successful completion of all prerequisites listed on the application and in the catalog  
Coreq.: NURS 50A and 50L

Introduction to nursing fundamentals, principles of care common to all patients, and basic medical-surgical concepts with application of theory and practice of skills in the clinical area. This course lays the foundation for successive nursing courses. The clinical experience is designed to be concurrent with theory. CSU

NURS 50A. Pharmacology in Nursing Part I (2)  
Lec-32 (total hrs)  
Coreq.: NURS 50 and 50L

Provides an overview of drug classification and then a focus on specific drug therapies related to the integumentary, endocrine, and central nervous systems, sensory organ inflammation, immunity and cancer. Emphasis on nursing implications of drugs, i.e. administration, pharmacologic effects, clinical uses and adverse effects. CSU

NURS 50B. Pharmacology in Nursing Part II (2)  
Lec-32 (total hrs)  
Coreq.: NURS 51 and 51L

Focuses on specific drugs used in the management of cardiovascular, respiratory, gastrointestinal, neurological, urinary, reproductive, psychiatric and peripheral nervous system disorder. Emphasis on nursing implications of drugs, i.e. administration, pharmacologic effects, clinical uses, and adverse effects. CSU

NURS 50L. Nursing Skills Laboratory (1)  
Lab-3  
Coreq.: NURS 50 and 50A

Designed to assist students in the development of psychomotor and cognitive skills involved in the performance of selected nursing procedures. The use of the modular approach provides an opportunity for the student to work independently and/or in small groups. CSU

NURS 50T. LVN to RN Transition (2)  
Lec-2, Lab-1  
Prereq.: Current LVN licensure and completion of RN Program; ANAT 25, PHYS 1 or 12, MB 12, ENGL 1A, MATH 40  
Advisor: LERN 51 and PHTC 102A

Focus is on the theory and skills essential for the LVN who is eligible for advanced placement in the RN program. Math and skills competencies included in the LVN scope of practice will be assessed at the beginning of the course. CSU

NURS 51. Basic Medical-Surgical Nursing (6)  
Lec-50, lab-153 (total hrs)  
Prereq.: NURS 50, 50L, and 50A; or current LVN license, NURS 50T  
Coreq.: NURS 50B and 51L

Designed to acquaint students with individuals experiencing dysfunction of the cardiac, vascular, respiratory, digestive, liver pancreas, biliary tract, kidney, urinary tract and male reproductive organs. Emphasis on nursing process and integrating principles of nutrition, pharmacology, pathophysiology, psychosocial and biological sciences. Students are assigned to care for patients in acute and nursing home units. CSU

NURS 51L. Intermediate Nursing Skills (3)  
Lab-144 (total hrs)  
P/NP available  
Prereq.: NURS 50, 50L, 50A  
Coreq.: NURS 51 and 50B

This course assists the registered nursing student to develop psychomotor and cognitive skills involved in the performance of selected complex nursing procedures. Students will learn in small groups and independently, assigned both in the nursing and computer lab. Emphasis is placed on patient safety, nursing process, physical assessment, legal aspects and detailed nursing documentation. CSU

NURS 53. Maternal and Newborn Care (6)  
Lec-51, lab-153 (total hrs)  
Prereq.: NURS 51 and 55 if taken first in sequence of 3rd semester nursing courses  
NURS 53 and 55 are half-semester courses required in the third semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.

Principles of and practices in maternal health and care of the newborn. Covers the complete maternity cycle and the growth and development of the newborn from the embryonic stage to neonatal life. Nursing experience in the cooperating hospitals augmented by observations in clinics and community agencies contributing to the welfare of mothers and children. CSU

NURS 54. Nursing of Children (6)  
Lec-51, lab-153 (total hrs)  
Prereq.: NURS 53, 55 (and 56 if taken first in the sequence of fourth semester nursing courses)  
NURS 54 and 56 are half-semester courses required in the fourth semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.

Developmental and physical process of children from birth through adolescence. Health maintenance needs of children, prevention, and treatment of common disease conditions and injuries that affect children. Clinical experience is designed to be concurrent with theory and will incorporate the school, hospital inpatient, and outpatient settings. CSU
NURS 55. Psychosocial Nursing (6)
Lec-51, lab-153 (total hrs)
Prereq.: NURS 51 and 53 if taken first in sequence of 3rd semester nursing courses
NURS 55 and 53 are half-semester courses required in the third semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.
The study and investigation of the etiology, dynamics, nursing care and therapeutic modalities for persons with psychological dysfunctions, and the understanding of mental health in relation to patient education, growth and development. Emphasis is placed on the interpersonal and problem-solving processes used in the care of all patients. CSU

NURS 56. Advanced Medical-Surgical Nursing (6)
Lec-51, lab-153 (total hrs)
Prereq.: NURS 53
NURS 56 and 54 are half-semester courses required in the fourth semester of students enrolled in the curriculum in Nursing. The sequence in which students will take these courses will be determined by the Nursing Department.
Introduction of advanced theories from nutrition, pharmacology, psychosocial and biological sciences, with the integration of cultural diversity essential to prepare the student nurse to apply the nursing process, utilizing Maslow's Hierarchy of Needs theory to provide care for the adult patient experiencing major health alterations in the acute care settings and community environments. Care of the older adult in acute and non-acute care settings. Emphasis on the application of leadership and management theory to clinical practice.
Instruction is augmented by supervised clinical experience in cooperating hospitals and selected agencies. CSU

NURS 58. Trends and Issues in Nursing (1)
Lec-51 (total hrs) P/NP only
Coreq.: enrollment in the RN Program; NURS 54 or 56
The historical and present trends and issues in nursing. The legal and ethical aspects of nursing and an introduction to the responsibilities of the new graduate nurse. CSU

Noncredit Courses:
NURS 1000. Registered Nurse Refresher (242 hrs)
Advis:  
1. A valid or expired RN nursing license from the United States or abroad. If licensed in the U.S., the candidate must have been out of the field of nursing for at least three years.
2. If a foreign license holder, a valid California LVN license and six months work experience in a health care facility.
3. Approval by the California board of Registered Nursing to take the NCLEX-RN licensure examination.
4. Basic Life Support (BLS) certification valid through the last day of the course.
5. An ESL level of high-advanced (CCSF level of 160)
6. Authorization to work in the U.S. and a valid social security number.

An eleven-week course designed to prepare graduates of the LVN Refresher course, as well as other internationally trained nurses and U.S. trained re-entry nurses, for employment as Registered Nurses. The goal is to facilitate direct employment into RN positions for participants who have more advanced English skills and nursing work experience.

NURS 1001. NCLEX-RN REVIEW - First Time Test Takers (60 hrs)
Advise: Completion of ESL 130 or placement in ESL 140
An NCLEX-RN preparation and review course for first time test takers only. The course will assist the test taker in formulating a review plan, utilizing available resources, reviewing applicable content and answering NCLEX-RN practice questions. Enrollment is limited to 48 students who will be taking the examination for the first time. Enrollees must be eligible to take the registered nurse licensing examination (NCLEX-RN) and must show proof of eligibility. Authorization to work in the U.S. and a valid social security number.

Nursing, Licensed Vocational
Office: John Adams
Phone Number: 415 561-1912
Web Site: www.ccsf.edu/lvn/

Announcement of Curricula
The programs offered in this department include credit courses with certificates issued in Home Health Aide/Nurse Assistant and h. Additionally, a noncredit course with a certificate issued is Geriatric Home Aide. A variety of courses for care of the elderly may be taken for certified nursing assistant and home health aide continuing education credit.

Home Health Aide/Nurse Assistant Certificate
Graduates of this 18 week full time program will be highly qualified for entry-level positions as health care providers. They are qualified for positions in acute care and convalescent facilities as well as home care agencies and out-patient clinics. Critical thinking concepts and principles will serve as a framework for studying the nursing and behavioral sciences within a health promotion/risk reduction, multicultural based curriculum.

Program Authorization. This program is approved by the California State Department of Health Services. Successful completion qualifies the graduate to: 1) take the Nurse Assistant Competency Examination to obtain State Certification for practice; 2) obtain Home Health Aide Certification without further examination.

NOTE. The Department of Health Services, Nurse Assistant Certification Division requires fingerprinting and disclosure of misdemeanor and felony convictions for all applicants.

Enrollment Procedure. Applicants must take a placement test, attend a program orientation, and meet all program prerequisites. Enrollees must be in good physical and mental health and be over 18 years of age.

Admission Requirements:
1. Completion of ENGL 140 or placement in ENGL 150.
2. A physical examination
4. Current CPR certification
5. Department of Health Services Applications ($15 Fee)
6. DHS Application for Criminal Background Check ($32 Fee)

Successful completion of the following courses require an average final grade of “C” or higher (2.00 grade point average) to qualify for a Certificate of Accomplishment.
Courses Required for the Certificate of Accomplishment in Home Health Aide/Nurse Assistant

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOCN 23 Nurse Assistant: Convalescent Care</td>
<td>6</td>
</tr>
<tr>
<td>VOCN 24 Home Health Aide</td>
<td>3</td>
</tr>
<tr>
<td>VOCN 25 Nurse Assistant/Acute Care</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>12</td>
</tr>
</tbody>
</table>

Vocational Nursing Certificate

The program of study for the Certificate of Achievement in Vocational Nursing is designed to prepare students for employment in acute care facilities, clinics, long-term care facilities, physician offices, home care, and health centers.

Admission. Enrollment is open to all interested students who are in good physical and mental health, and over 17 years of age.

To Be Admitted To The Program Applicants Must:
1. Be a graduate of the 12th grade in high school or its equivalent (i.e., GED, High School Proficiency Examination).
2. Attend mandatory program orientation at John Adams site. Application to the program will be handed out during the orientation. Program orientation is valid for one year.
3. File with the Vocational Nursing Department a completed application for admission to City College (for dates, see "Calendar of Instruction").
4. Apply for admission to the program for the Fall semester between February 15 and May 1, and for the Spring semester, between September 15 to November 1.
5. Take the City College placement tests in English and Mathematics.
6. On the basis of the placement tests and counseling or course work, demonstrate eligibility for ENGL 93 or completion of ESL 160 and MATH 40.
7. Applicants must submit official transcripts.
   a. High school transcripts must show proof of completion of the 12th grade. Transcripts must be submitted in keeping with the application deadline.
   b. Applicants who are accepted in Vocational Nursing and who wish to receive credit for prior nursing education courses completed must submit official transcript within application deadline.
8. Admission of Certified Nurse Assistant, Board Challenge transfer students.
   a. State of California CNA certificate and completion of a CNA program from a credit-granting college within the previous 5 years qualifies a student for at least 4 units.
   b. Transfer students from other accredited L.V.N. or R.N. programs are accepted in the CCSF Vocational Nursing Program. Acceptance is based on equivalent nursing education and availability of space.
   c. Board challenge applicants who need required courses for state boards should contact the vocational nursing office.
   d. Credit may not be given toward satisfying the Vocational Nursing course requirement, for courses completed 5 or more years prior to application for admission.
9. Complete the following prerequisites within 5 years prior to enrollment with a C or higher in each class starting with Fall Semester 2006:

<table>
<thead>
<tr>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy and Physiology course 3 units (e.g., VOCN 41E or ANAT 14, or ANAT 25, and PHYS 1 or 12)</td>
</tr>
</tbody>
</table>

Credit by Examination. Applicants who qualify for admission into the Vocational Program and who have had health training courses in the military, psychiatric technician and certified nurse assistants graduates from noncredit programs who wish to receive credit, or advanced placement should contact the vocational nursing office for additional information. Admission is based on space available only.

Students may obtain the Certificate of Achievement in Vocational Nursing by completing the following courses with a grade of C or higher.

Courses Required for the Certificate of Achievement in Vocational Nursing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>VOCN 41A Fundamentals of Voc Nursing</td>
<td>4</td>
</tr>
<tr>
<td>VOCN 41B Basic Medical/Surgical Nursing</td>
<td>7</td>
</tr>
<tr>
<td>VOCN 41C Basic Medical/Surgical Skills Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>VOCN 41D Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>VOCN 42A Adult Medical Surgical Nursing I</td>
<td>5</td>
</tr>
<tr>
<td>VOCN 42B Adult Medical/Surgical Nursing II</td>
<td>5</td>
</tr>
<tr>
<td>VOCN 42C Adult Medical/Surgical Skills Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>VOCN 42D Mental Health Nursing</td>
<td>2</td>
</tr>
<tr>
<td>VOCN 42E Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>VOCN 43A Concepts in Comm Health Nursing</td>
<td>2</td>
</tr>
<tr>
<td>VOCN 43B Maternity Nursing</td>
<td>4</td>
</tr>
<tr>
<td>VOCN 43C Pediatric Nursing</td>
<td>3</td>
</tr>
<tr>
<td>VOCN 43D Adv Medical Surgical Nursing</td>
<td>4</td>
</tr>
<tr>
<td>VOCN 43E Adv Medical/Surgical Skills Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>VOCN 43F Child Growth and Development</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>44.5</td>
</tr>
</tbody>
</table>

Announcement of Courses

Credit, Degree Applicable Courses:

VOCN 22EX. CNA-LVN Bridge (3)
Lec-3, lab-2
Prereq.: Eligibility for Licensed Vocational Nursing Program
The course provides an introduction to information and skills helpful to the pre-nursing student. Course content includes theory and practice in learning and test-taking strategies, critical thinking, medical terminology and communication. CSU

VOCN 23. Nurse Assistant/Convalescent Care (6)
Lec-84, lab-126 (total hrs)
This 10 week course presents theory content with concurrent clinical practice that integrates basic nursing concepts and skills in order to provide safe and competent patient care in a long term care setting. The core components include: communication, and interpersonal skills, infection control, safety and emergency procedures, promoting patient independence, patient/resident rights, basic nursing skills, personal care skills, mental health and social service needs, care of the cognitively impaired and basic restorative services. CSU

VOCN 24. Home Health Aide (3)
Lec-40, lab-24 (total hrs)
Prereq.: VOCN 23 and valid CNA license
A short course that provides as introduction to basic patient care in the home setting with a focus on the following core components: liability,
safety, infection control, housekeeping chores, food management, laundry, and record keeping. Successful completion of this course will entitle the student to a State Certification as a Home Health Aide. CSU

VOCN 25. Nurse Assistant/Acute Care (3)
Lec-5, lab-16 (6 wks)
Prereq.: VOCN 23 and valid CNA license
The course provides students with the knowledge and skills needed to function in the acute care setting. Emphasis is placed on understanding the needs of the acute care patient and the role of the CNA in meeting those needs. Clinical placement in an acute care setting will provide hands on experience caring for acutely ill patients with a variety of diagnoses with emphasis on teamwork, communication and the importance of accurate observation and assessment. CSU

VOCN 26. Restorative Nurse Assistant (1)
Lec-16 (total hrs)
Prereq.: Current California CNA Certification
Coreq.: Current satisfactory employment as a CNA by a community-based skilled nursing facility
Advise: One year experience as a CNA in long term care
Physical strength and flexibility sufficient to provide restorative activities for patients. Completion of ENGL L or ESL 140, or placement in ENGL 90 or ESL 150
A two-day Restorative Nursing Assistant certification course for Certified Nursing Assistants employed by a community-based Skilled Nursing Facility. The course provides theory and skill practice to improve the knowledge base and clinical competencies of the CNA to effectively assist residents with restorative care needs. CSU

VOCN 41A. Fundamentals of Vocational Nursing (4)
Lec-4, lab-1
Prereq.: VOCN 41E
Coreq.: VOCN 41B, 41C, and 41D
Provides an introduction to basic patient care in the hospital setting with a focus on the following core components of Vocational Nursing: the nursing process, legal aspects of nursing, medical terminology, therapeutic communication, basic bedside nursing care, client teaching, infection control and basic needs assessment. CSU
Formerly VOCN 33C.

VOCN 41B. Basic Medical/Surgical Nursing (7)
Lec-4, lab-18
Prereq.: VOCN 41A
Coreq.: VOCN 41C
Presents theory content with concurrent clinical practice. Systems focus includes the musculoskeletal, integumentary, and gastrointestinal systems. Nursing care of the geriatric client is emphasized to promote understanding of the core concepts of basic medical-surgical nursing: health and illness, culturally competent and age-appropriate nursing care. CSU
Formerly VOCN 33E.

VOCN 41C. Basic Medical/Surgical Skills Lab (.5)
Lab-2
Introduction to basic medical-surgical assessment skills as well as the nursing skills commonly practiced for clients with integumentary, musculoskeletal and gastrointestinal disorders. CSU
Formerly VOCN 33D.

VOCN 41D. Pharmacology (3)
Lec-3
Introduction to the basic concepts of pharmacology for the vocational nursing student. Basic principles of pharmacology, medication calculations, preparation, administration and storage are emphasized. CSU
Formerly VOCN 33A.

VOCN 41E. Anatomy and Physiology (3)
Lec-3
Introduction to the basic concepts of anatomy and physiology for the vocational nursing student. Emphasis is placed on the organization of the body, basic structures, physiological processes, and the structure and function of the body systems. CSU
Formerly VOCN 33F.

VOCN 42A. Adult Medical Surgical Nursing I (6)
Lec-44, lab-157 (total hrs)
Prereq.: VOCN 41A-41E
Presents theory content with concurrent clinical practice. System focus includes hematologic, immune cardiovascular, and respiratory systems. Core concepts include: care of the surgical patient, pain management, and fluid and electrolyte balance. CSU
Formerly 34B.

VOCN 42B. Adult Medical Surgical Nursing II (6)
Lec-44, lab-157 (total hrs)
Prereq.: VOCN 41A-41E
Presents theory content with concurrent clinical practice. System focus includes neurological, endocrine, genitourinary and reproductive systems. CSU
Formerly VOCN 35B.

VOCN 42C. Adult Medical/Surgical Skills Lab (.5)
Lab-2
Prereq.: VOCN 41A-41E
Presents the nursing skills commonly practiced for clients with hematologic lymphatic, cardiovascular, respiratory, neurological, endocrine, genitourinary and reproductive disorders. CSU
Formerly VOCN 34E.

VOCN 42D. Mental Health Nursing (2)
Lec-2
Prereq.: VOCN 41A-41E
Introduction of the basic concepts of mental health nursing for the vocational nursing student with a focus on the current therapeutic interpersonal processes and problem solving techniques helpful in identification and treatment of the mental health disorders which may be present in acutely ill medical/surgical patients. CSU
Formerly VOCN 35A.

VOCN 42E. Nutrition (3)
Lec-3
Introduction of the basic concepts of nutrition for the vocational nursing student. Provides knowledge of normal and therapeutic nutrition to serve as a basis for decision-making in providing nursing care. Nutrition is integrated into patient care with emphasis on aspects of disease prevention. CSU
Formerly VOCN 34G.

VOCN 43A. Concepts in Community Health Nursing (2)
Lec-1, lab-3
Prereq.: VOCN 42A-42E
Introduction to community health nursing: home health care, long-
term care, rehabilitative and hospice care, as well as disaster nursing. CSU
Formerly VOCN 35C.

VOCN 43B. Maternity Nursing (4)
Lec-3, lab-5
Prereq.: VOCN 42A-42E
Presents the principles and practice of obstetrical nursing, with an emphasis on the scope of practice of the Vocational Nurse. Individualized, culturally appropriate nursing care for the new mother and neonate are examined. CSU
Formerly VOCN 34C.

VOCN 43C. Pediatric Nursing (3)
Lec-2, lab-5
Prereq.: VOCN 42A-42E
Presents the principles and practice of nursing care of children from birth to 18 years old. Health maintenance, disease prevention and common childhood abnormalities are emphasized. CSU
Formerly VOCN 34D.

VOCN 43D. Advanced Medical Surgical Nursing (4)
Lec-40, lab-72 (total hrs)
Prereq.: VOCN 42A-42E
Presents theory content with concurrent clinical practice with a focus on current therapeutic treatment modalities and nursing management for advanced medical/surgical patients. Core concepts include: care of the oncology patient; leadership and management; and career development. CSU
Formerly VOCN 35B.

VOCN 43E. Advanced Medical/Surgical Skills Lab (.5)
Lab-2
Prereq.: VOCN 42A-42E
Presents the nursing skills commonly practiced in maternity and pediatric nursing as well as the client with advanced medical-surgical disorders. CSU
Formerly VOCN 35D.

VOCN 43F. Child Growth and Development (1)
Lec-1
Presents basic concepts of normal growth and development from birth through adolescence. The growth and developmental theories proffered by Abraham Maslow, Eric Erickson, and Jean Piaget will be examined. The impact of age-appropriate nursing interventions will be discussed. CSU
Formerly VOCN 34E.

Noncredit Courses:
VOCN 9194. Home Health Aide-Theory/Special (120 hrs)
Advise: ESLN 3500
Principles of personal care for the adult and geriatric client requiring home care. Emphasis for students re-entering the job market and those with Cantonese/Mandarin bilingual skills. Certification by the State of California upon successful completion of theory and clinical components.

VOCN 9200. Nursing Refresher (455 hrs)
Prereq.: Eligibility for ENGL 93 or 94 or ESL 160; LVN License or RN License from U.S. or abroad
A one-semester course designed for international and U.S. trained re-entry LVNs and RNs. The course provides review and refreshing of knowledge and skills needed for employment in nursing through didactic, skills lab, and clinical experience.

Oceanography
See Earth Sciences listings.

Older Adults
Office: Ocean
Phone Number: (415) 452-5839
Web Site: www.ccsf.edu/olad

Announcement of Courses
General Information
The Older Adults Department offers free classes at thirty sites around San Francisco for anyone over fifty-five years of age. For further information, please call (415) 452-5839.

Noncredit Courses:

General Classes
OLAD 7000. Senior Adventures (90 hrs)
A full-day program of diverse activities that may include lectures, crafts, music, exercise, discussions, service projects, field trips, holiday celebrations, and opportunities to learn various new skills.

OLAD 7006. Understanding Changing Times (36 hrs)
Activities focus on personal, social, political, and wellness issues; field trips may be included.

Health
OLAD 7200. Exercise and Relaxation Techniques (36 hrs)
Some of these classes offer T’ai Chi Chuan instruction in the thirty-seven-posture Yang form that promotes relaxation, balance, coordination, and good health. Other classes present modified hatha yoga, body mechanics, back care, breathing, meditation and flexibility exercises.

OLAD 7205. Wellness Exercises (18 hrs)
Moderate exercises designed for either older adults with limited physical abilities or those who are re-introducing themselves into a physical fitness program. The T’ai Chi Chuan sections of this class emphasize proper body alignment, stances, and coordination, using the principles of the art to promote relaxation and health.

OLAD 7209. Mind-Body Health (36 hrs)
A discussion and practice class for improving one's health through an understanding of the impact of thoughts, emotions, and attitudes on the body. Practice sessions involve gentle exercises based on T’ai Chi.

OLAD 7210. Medical Options for Older Adults (45 hrs)
A survey of western and alternative medical models incorporating exercises in breathing and stretching and journal keeping, as well as a
peer support group. There are guest lecturers in acupuncture, massage, chiropractic, and hypnotherapy. The objective is to enable students to become more active and knowledgeable participants in their own health care.

OLAD 7211. Memory and Mental Fitness for Older Adults (36 hrs)
Older adults discover and practice memory and mental fitness techniques in practical and creative ways. Learn how memory works, and what factors affect how well our brain functions. Students discover and use their own learning style to improve their ability to retain and retrieve information.

OLAD 7212. Aging and Social Relations (36 hrs)
Research has shown that social engagement is a key to healthy aging. Learn what research and practice have uncovered about different aspects of social relations in later life, such as intergenerational/cross-generational activities, family relations, civic engagement, intimacy, care giving, and death and grieving. Discover free and low-cost opportunities for social engagement, including intellectual, social and physical activities in and around San Francisco.

OLAD 7214. Healthier Living (15 hrs)
This course provides older adults with pertinent information, effective strategies, and skills to assist them in managing personal health conditions and to maintain an active and fulfilling life.

The Arts

OLAD 7300. Art for Older Adults (45 hrs)
Open to beginning and advanced students. Using oil paints or watercolors, students will study and work to develop different painting techniques through a series of exercises. Students will receive individual instruction on how to mix colors, work from still life materials, work from landscapes and eventually work from live models. Students provide their own materials.

OLAD 7301. Arts and Crafts for Older Adults (45 hrs)
A general survey of arts and crafts with an emphasis on exercises and experiments with methods and materials, including: painting, drawing, color theory, composition rendering, batik, tie-dye, macrame, block printing, ceramics, metal crafts, leather, and weaving.

OLAD 7303. Figure Drawing - Older Adults (54 hrs)
Studio class in drawing the human figure from a live model. For beginners to professionals. Pencil, charcoal, ink, and watercolors. Field trips will be included in the program to study and evaluate other artists’ works.

OLAD 7307. Music Appreciation for Older Adults (36 hrs)
Study of and familiarization with the music of western civilization. Students are introduced to a sampling of music from ballets, operas, and symphonies.

OLAD 7309. Theater Appreciation for Older Adults (54 hrs)
Students read plays, attend performances, and develop critical skills in review discussions. The history of theater, elements of dramatic literature, and production techniques.

OLAD 7310. Stitchery for Older Adults (45 hrs)
Patchwork, Hawaiian quilting, trapunto, cross stitch, embroidery stitches. Projects include two pillows, a small quilt, embroidering on a garment, a purse, and construction of a bound book.

OLAD 7313. Art Appreciation - Older Adults (36 hrs)
Introduction to art, painting and sculpturing from the Lascaux cave paintings to modern day artists. Topics include: biographies and personalities of various artists; different art styles; the basic elements of art; the basic periods of art history and their characteristic styles along with the reasons such styles were developed.

OLAD 7316. Life Sculpture for Older Adults (90 hrs)
In a supportive studio atmosphere, students will learn and gain proficiency in constructing clay sculpture working primarily from a live model.

Writing and Literature

OLAD 7400. Journal Writing for Older Adults (36 hrs)
Development of writing skills through journal keeping. Students acquire insight and awareness by the practice of writing techniques such as creative exercises, dialogues and monologues, stories, description, dreams, letters, memoirs, and poetry.

OLAD 7401. Writers’ Workshop for Older Adults (45 hrs)
Develop writing skills in a peer support group. Students may choose to work on prose and/or poetry and read their work in class. Learning how to respond to writing, guided creative exercises and assignments, sentence and story structure.

OLAD 7402. English - Women’s Literature (54 hrs)
Survey of works by and about women, including novels, short stories, essays, biography, and poetry. Development of reading and critical thinking skills. Each semester focuses on either American or international authors.

OLAD 7403. Modern Literature - Older Adults (45 hrs)
Survey of modern literature, including novels, short stories, essays, biography, and poetry. Development of reading and critical thinking skills. Each semester focuses on different cultures and themes.

OLAD 7406. Intergenerational Storytelling (36 hrs)
Examine techniques of storytelling including developing original ideas and themes and enhancing presentational practice through vocal modulation, gestures, and memory exercises. Students present and rehearse different stories each week. The course encompasses mutual critiques, field trips, guest storytelling speakers, and presentations to children and older adults in community based organizations.

OLAD 7410. Life Review for Older Adults (45 hrs)
This course gives each participant an opportunity to reflect on his/her past, consider how past occurrence have influenced his/her present, and look at how the past and present might shape his/her future. It uses non-traditional approaches (i.e., thematic, rather than chronological) to reminisce and review students’ own lives. Opportunities to be creative, to share, and to learn about oneself and others in a supportive environment are created.

Computers

OLAD 7501. Introduction to Computers (54 hrs)
An introduction, for older adults, to the basic concepts and techniques of personal computers, presented in an unhurried, non-competitive environment with guided practice and skill building exercises. Topics include computer concepts of basic software and hardware, operating systems, word processing, email and the Internet.
OLAD 7502. Introduction to the Internet (54 hrs)
Advise: OLAD 7501
A survey of the concepts and techniques of the Internet, presented in an unhurried, non-competitive environment. Students learn how to: access to the web; use e-mail; surf the web using browsers; participate in chat and social media; conduct research using search engines; and create a web page or blog.

OLAD 7503. Art and Photography Using Digital Media (54 hrs)
Advise: OLAD 7501
Presentations, demonstrations and hands-on projects provide an introduction to the concepts and techniques of using the computer to create digital art and photographs utilizing digital cameras, scanners, and other media. The course provides strategies for enhancing and manipulating images with photo editing programs.

OLAD 7504. Introduction to Computers II (54 hrs)
This course is a continuation of Introduction to Computers and will emphasize working with Microsoft Office programs including Word, Excel and PowerPoint.

Paleontology
See Earth Sciences listings.

Philippine Studies
Office: Batmale 360
Phone Number: (415) 239-3740
Web Site: www.ccsf.edu/philstd

Announcement of Courses
Credit, Degree Applicable Courses:
PHST 10. Independent Study (3)
Ind st-15 P/NP available
Independent reading and research in Philippine Studies. The student is required to submit an essay or project on a topic that the instructor has approved in advance. This project must have strong relevancy within the area of Philippine Studies and meets the student's own educational resources and needs. CSU (UC upon review)

PHST 20. The Filipino Family (3)
Lec-3 P/NP available
A survey of adaptation to internal and external forces of change that have buffeted and changed the modern Filipino family. Description and analysis of traditional and contemporary Filipino family systems as they respond to the nature and changes within the larger Philippine society and culture. CSU/UC

PHST 30. Philippine Society and Culture Through Film (3)
Lec-3 P/NP available
An examination of Filipino/Philippine films for expressions of various cultural themes and socio-political influences on the Filipino experience; includes: the use and meaning of language for Filipinos, images of Filipinos, interpersonal relations, isolation, sex roles, "The Filipino Dream," immigration, and bicultural alienation. CSU/UC

ANTH 15. Philippine Culture and Society (3)
Lec-3 P/NP available
The development of Philippine culture and the impact of Western civilization on the people; emphasis on the ways of life in Philippine cities and barrios. Tribal cultures. CSU/UC

ASAM 8. Filipino American Community (3)
Lec-3 P/NP available
Description and analysis of Filipino American community problems from a sociological viewpoint. Cultural shock and other problems of adaptation of Filipino immigrants considered in light of the carryover from Filipino culture and psychology. CSU/UC

LGBT 50. Gay/Lesbian/Bisexual/Transgender Communities of Color in the U.S. (3)
Lec-3 P/NP available
Examination of the formation of lesbian/gay/bisexual and transgender identities and communities among people of color in the United States. Included are African Americans, Native Americans, Asian Americans, Pacific Islanders, and Chicano/Latinos. CSU/UC
Formerly GLST 50

HIST 36. History of Southeast Asia (3)
Lec-3 P/NP available
A survey of the history of southeast Asia, with emphasis on the post World War II developments and events. CSU/UC

HIST 37. History of the Philippines (3)
Lec-3 P/NP available
The historical and cultural growth of the Philippines, including the development of national culture, political and social institutions, and foreign relations. CSU/UC

HIST 39. The United States Presence in the Western Pacific Rim: An Introduction (3)
Lec-3 P/NP available
A survey course on the evolution of US interests, expansion and foreign policies in the Western Pacific Rim area, specifically the countries in East Asia and Southeast Asia. CSU/UC

IDST 36. Poetry for the People (3)
Lec-3 P/NP available
An interdisciplinary poetry course which explores the poetry of African Americans, Latino(a)s, Asian Americans, and Native Americans, including poetry by incarcerated people and by poets of all sexual orientations. Use of tapes, recordings, films, poetry readings, and discussions, close readings, guest lectures and performances to 1)identify poetry that is accessible to the general community and 2) develop strategies and various media for making poetry available to diverse communities. CSU/UC

IDST 37. Racial and Ethnic Groups in the United States - A Comparative Survey (3)
Lec-3 P/NP available
An interdisciplinary survey of the history, culture, problems, and conditions of American ethnic minorities and the effects of racism, prejudice and discrimination on emerging minority groups in the United States. CSU/UC

IDST 40. Introduction to Contemporary Issues in the Filipino Community (3)
Lec-3, field trips P/NP available
Students identify and critically analyze contemporary social, political, economic, educational, and cultural issues that are important and significantly affect the life of the Filipino American community. Issues include the following areas: defining Filipino and Filipino American identity, immigration and acculturation, socioeconomic status, employment, racial and ethnic diversity, gender, political empowerment, education, and emerging patterns of the Filipino family. CSU/UC
IDST 42. Philippine Humanities (3)
Lec-3, field trips P/NP available
Appreciation and critical evaluation of Filipino philosophy, literature, art, music, and dance for the purpose of developing an aesthetic sense and cultural acceptance. Exposure to the best of these forms through readings, recordings, films, and field trips. CSU/UC

Pilipino Language Courses: See Pilipino in this section of the catalog.

POLS 47. Government and Politics of Southeast Asia (3)
Lec-3 P/NP available
A survey of political developments and changes in Southeast Asian states (the Philippines, Indonesia, Malaysia, Thailand, and Singapore) and such other states as Viet Nam, Laos, Cambodia, and Burma. Internal politics and international relations. CSU/UC

PSYC 22. Psychology of Race and Ethnic Relations (3)
Lec-3 P/NP available
Not open to students who are enrolled in or who have completed PSYC 23.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. CSU

PSYC 23. The Psychology of Race and Ethnic Relations (3)
Lec-3 P/NP available
Prereq.: PSYC 1
Not open to students who are enrolled in or who have completed PSYC 22.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. CSU/UC

Announcement of Courses
Credit, Degree Applicable Courses:
Except for PHIL 12B, philosophy courses may be taken in any order. Both PHIL 2 & 4 are recommended as introductory courses.

PHIL 2. Introduction to Philosophy: Morality and Politics (3)
Lec-3
An examination of such questions as: Are value and moral judgments only the conventional prejudices of society or are there conditions under which value judgments can be rationally defended? If there are such grounds, what are they? If not, what consequences, if any, follow from ethical skepticism? Can value judgments about individuals or societies be justified on rationally acceptable grounds? CSU/UC

PHIL 4. Introduction to Philosophy: Knowledge and Its Limits (3)
Lec-3
The tools and techniques of philosophical reasoning: reading argumentative prose; analyzing conceptual models; writing critical essays. Problems of knowledge: the criteria of reliable knowledge; the formulation and justification of beliefs; the sources and limits of knowledge; beliefs about the physical world, the past and future, and other minds. Critical standards applied to related metaphysical issues: theism, mind and self-identity, determinism. CSU/UC

PHIL 12A. Symbolic Logic (4)
Lec-5
Prereq.: MATH 60 or 92, or placement in MATH 90, or 2 yrs. high school algebra, or demonstration of MATH 60 exit skills
The study of logical relationships (consistency, equivalency, and entailment) by way of models and procedures in a symbolic system. The concept of proof and the demands of formal proofs. Methods of demonstrating logical relationships, including truth tables, derivations in sentence and predicate logic, and semantic interpretations. The relation between conventional languages and symbolic encodings. A selection of related theoretical topics, including proofs of soundness and consistency for the calculi, and elementary set theory. CSU/UC

PHIL 12B. Symbolic Logic (3)
Lec-3
Prereq.: PHIL 12A
Semantic interpretations and the predicate calculus; identity; metatheorems; proofs of completeness, consistency and soundness; axiomatics; formalized theories; the history of logic. CSU/UC

PHIL 25A. Ancient Philosophy (3)
Lec-3
The origins of the philosophical-scientific tradition. Early attempts at rational explanations of the natural world. Socrates and the foundations of moral criticism. Plato: his articulation of the problems of knowledge, and contributions to moral and political theory. Aristotle: his organization of scientific inquiry, formulation of ethical theory, and development of the science of logic. The philosophic tradition after Aristotle. CSU/UC

PHIL 25C. Modern Philosophy through Kant (3)
Lec-3
The philosophical tradition from the Renaissance to the nineteenth century. Emphasis on new models of human knowledge and human nature formulated in reaction to scientific and social revolutions. Positions of thinkers such as Descartes, Hume and Kant on basic questions such as "Can anything be known with certainty?", "Are there any justifiable moral principles?", "Is there any purpose to existence?" CSU/UC

PHIL 40. Logic: An Introduction to Critical Thinking (3)
Lec-3 P/NP available
A course in practical reasoning. How to distinguish between reasons that are rational and those that are not. Methods of evaluating arguments that will lead to the truth. CSU/UC

PHIL 51-52-53. Selected Topics in Philosophy (1-2-3)
Lec-1,2,3
Repeat: if no topic repeat
Investigation of a broad range of ideas, issues, figures, and movements. CSU

PHIL 53A. Wilderness, Society and Self
Photography
Office: Visual Arts 160
Phone Number: (415) 239-3422
Web Site: www.ccsf.edu/photo

Announcement of Curricula

General Information
The City College of San Francisco’s Photography Department is one of the oldest and largest programs in the country, with over two dozen courses and thirty-plus instructors. We offer a broad choice of classes from History and Aesthetics of Photography, Advanced B&W Darkroom Techniques, and Advanced Studio Lighting to Photoshop, Mixed Media and Business Practices of Photography.

Our faculty and staff consist of experienced professionals who create an environment that encourages creativity, technical aptitude, and critical thinking. Whether your interest is as a fine artist, commercial photographer, or enthusiast, we will provide the means and guidance that will help you achieve your goals.

Students who plan to continue as photography majors at the university are advised to review major requirements specific to their transfer university on www.assist.org.

Learning Outcomes
Students will be able to:
- Use the traditional tools and techniques of photography
- Develop skills in evolving digital technologies
- Apply concepts and aesthetics to create and evaluate photographic images
- Satisfy academic transfer requirements to institutions of higher learning

Career Opportunities
- Commercial Photography
- Portrait Photography
- Fine Art Photography
- Editorial Photography
- Documentary Photography
- Photographic Retouching
- Photo Assisting
- Digital Imaging

Photography Major (AS)

Associate in Science Degree with Major in Photography. The program is designed so that students may satisfy the requirements for graduation from the College. The program adviser of the Photography Department will help students who desire to plan special programs of study.

Courses Required for the Major in Photography
Course Units
First Semester
PHOT 50A or 50B History & Aesthetics of Photo 4
PHOT 51 Beginning Photography 3
PHOT 53 Photographic Design and Concepts 3
or DSGN 101 Design Fundamentals 2 or 3
Additional graduation requirements

Second Semester
PHOT 55 Color Theory of Photography 3
PHOT 81A Inter. Black & White Photo 3
PHOT 83 View Camera Techniques 2
PHOT 85A Beginning Lighting Techniques 4
Additional graduation requirements

Third Semester
PHOT 60A Beginning Photoshop 2
PHOT 85B Adv. Studio Lighting Techniques 4
PHOT 93 Editorial Photography 2
PHOT 95A Beginning Color Printing 4
Additional graduation requirements

Fourth Semester
PHOT 81B Adv. B+W Darkroom Techniques 4
PHOT 90 Portraiture 4
PHOT 99 Business Practices of Photography 3
Photography elective 2
Additional graduation requirements
Total Units 46–47

Elective Courses: In choosing electives, students should take at least two units from the following list of courses. Students should select electives in consultation with their program adviser. PHOT 52, 57, 60B, 67, 80, 82, 86, 89, 95B, 101-104, 118, 130.

Collaborative Design Certificate*
The 17-unit certificate program in Collaborative Design provides students with a strong foundation in multidisciplinary approaches to design and collaboration.
* See Interdisciplinary Studies section of the Catalog.

Announcement of Courses

Photography

Credit, Degree Applicable Courses:
PHOT 50A. History and Aesthetics of Photography (4)
Lec-4, field trips 
P/NP available
Illustrated lectures on the achievements of important photographers. Designed to stimulate visual thinking and creative problem solving. Visits to museums, films and slide lectures. CSU/UC

PHOT 50B. History and Aesthetics of Photography Since 1945 (4)
Lec-4, field trips 
P/NP available
History of photography since 1945, highlighting achievements of important photographers. Designed to stimulate visual thinking and creative problem solving. Topics covered are: avant garde, surrealism, symbolism, fictional photographs, structuralists, post-modernism, pop art, current uses of landscape images, contemporary color, and photography’s interactions with modern painting, video, performance and computer. Visits to museums and galleries. CSU/UC

PHOT 51. Beginning Photography (3)
Lec-3, lab-3, field trips 
P/NP available
A basic course introducing photographic capture, processing and output practices. Introduction to small format cameras including both film and digital; exposure calculations, film and digital capture, scanning, digital printing, and presentation techniques. This course explores both the technical and aesthetic aspects of photography. CSU/UC
PHOT 52. Photographers and Their Images (1)  
Lec-1  
P/NP available  
Repeat: max. 2 units  
Professional photographers present and discuss their work in both technical and aesthetic terms. This is a unique opportunity for photography students to meet world renowned photographers and discuss topics in a question and answer format. CSU

PHOT 53. Photographic Design and Concepts (2)  
Lec-3, lab-1, field trips  
P/NP available  
Prereq.: PHOT 51 OR DEMONSTRATION OF EXIT SKILLS  
Design and concept elements necessary for the formulation of photographic images; communication and expression of photographic ideas; exploration of conceptual and formal design of photography. CSU

PHOT 55. Color Theory of Photography (3)  
Lec-3, field trips  
P/NP available  
Prereq.: PHOT 51 OR DEMONSTRATION OF EXIT SKILLS  
Advis: COMPLETION/CONCURRENT ENROLLMENT IN PHOT 53  
Basic principles of photographing with slide film; special demands of color technique; color relationships; light qualities; kinds of films; class demonstrations; critiques of color transparencies. CSU

PHOT 57. Photography for the Web (3)  
Lec-3, lab-1  
P/NP available  
Prereq.: PHOT 51 AND MMSP 120 OR DEMONSTRATION OF EXIT SKILLS  
Coreq.: MMSP 130  
Introduction to the role of photography in multimedia. Beginning digital imaging, image acquisition, and the production process. Emphasis on the application of these skills integrated with other digital media. Using these techniques, students will explore conceptually the use of photographic images in multimedia. Includes lab assignments and demonstrations of hardware and software necessary for the contemporary photographer to succeed in the electronic age. CSU

PHOT 60A. Beginning Photoshop (2)  
Lec-2, lab-1, field trips  
P/NP available  
Prereq.: GRPH 25 OR CS 100M OR MMSP 120 OR DEMONSTRATION OF EXIT SKILLS  
Advis: PHOT 51  
A beginning level lecture/lab course introducing the student to Photoshop. Technical aspects of digital photography will be emphasized. This emphasis includes demonstration of the software and hardware necessary for a photographer to succeed in the contemporary photographic marketplace. Students will complete lab exercises in class as well as assignments to be completed outside of class time. CSU

PHOT 60B. Intermediate Photoshop (3)  
Lec-2, lab-3, field trips  
P/NP available  
Prereq.: PHOT 51, 60A; AND DSGN 101 OR GRPH 21 OR DEMONSTRATION OF EXIT SKILLS  
An intermediate level lecture/lab course for students to expand their capabilities in Photoshop. Intermediate techniques in the manipulation, alteration and enhancement of digital photography will be emphasized. This in-depth exploration of the digital photograph will provide the student with skills to create their own expressive images and explore the various electronic methods of output. Students will integrate the technical resources that are available to them in preparation for a rapidly changing field. Class demonstrations, projections and critiques of student work will be used. Students will complete lab exercises in class. CSU

PHOT 67. Digital Negatives for Darkroom Printing (3)  
Lec-3, lab-1  
P/NP available  
Prereq.: PHOT 51 AND PHOT 60A  
Advis: PHOT 81A, PHOT 86  
Creation of film negatives from digital files for use in a traditional darkroom. Students will perfect their negatives in the digital realm, output them using digital techniques and then print them using traditional, historical and alternative printing methods in the darkroom. CSU

PHOT 68. Outdoor and Ambient Light Photography (3)  
Lec-3, lab-1, field trips  
P/NP available  
Prereq.: PHOT 51  
Advis: DSGN 101  
A hands-on, how-to course in managing natural light. Emphasis is on outdoor and existing light; designed to relate lighting to photo-aesthetics and visual communication. CSU

PHOT 81. Intermediate Black and White Photography (3)  
Lec-3, lab-3  
P/NP available  
Prereq.: PHOT 51 AND DSGN 101 OR DEMONSTRATION OF EXIT SKILLS  
An intermediate black & white film photography course with emphasis on film processing and darkroom printing. Topics include camera exposure, black & white films and enlarging papers, contrast control, camera filters, elementary lighting, electronic flash, medium format cameras, finishing techniques and aesthetics of photography. CSU

PHOT 81A. Intermediate Black and White Photography (3)  
Lec-3, lab-3, field trips  
P/NP available  
Prereq.: PHOT 81A AND DSGN 101 OR DEMONSTRATION OF EXIT SKILLS  
Repeat: max. 8 units  
An intensive exploration of the controls and materials of the black and white photographic process. Emphasis on fine printing, optimization of the negative and archival processing procedures, and an analysis of films, papers and developer combinations. CSU

PHOT 81B. Advanced Black and White Darkroom Techniques (4)  
Lec-3, lab-3  
P/NP available  
Prereq.: PHOT 81A AND DSGN 101 OR DEMONSTRATION OF EXIT SKILLS  
Repeat: max. 6 units  
An exploration of the Photographic Zone System through use of special light metering, processing, and fine printing techniques. A study of the integration of aesthetics, calibration of camera and exposure meter to film, calibration of film to photographic printing papers, development of film for specific lighting conditions, printing and other techniques associated with the Photographic Zone System required for assignments. The production of a fine portfolio of images using the Zone System for presentation to clients or galleries and museums. CSU

PHOT 82. Zone System Techniques (3)  
Lec-3, lab-3, field trips  
P/NP available  
Prereq.: PHOT 81A AND DSGN 101 OR DEMONSTRATION OF EXIT SKILLS  
Repeat: max. 6 units  
An exploration of thePhotographic Zone System through use of special light metering, processing, and fine printing techniques. A study of the integration of aesthetics, calibration of camera and exposure meter to film, calibration of film to photographic printing papers, development of film for specific lighting conditions, printing and other techniques associated with the Photographic Zone System required for assignments. The production of a fine portfolio of images using the Zone System for presentation to clients or galleries and museums. CSU

PHOT 83. View Camera Techniques (2)  
Lec-2, lab-1  
P/NP available  
Prereq.: PHOT 51 OR DEMONSTRATION OF EXIT SKILLS  
Advis: PHOT 53, 55, AND 85A (Concur.)  
An exploration of the 4x5 view camera through hands-on experience. Investigation of perspective control, camera movements, film, processing, and printing as applied to studio, architectural and fine art photography. The department will provide students with 4x5 cameras. CSU
PHOT 85A. Beginning Lighting Techniques (4)  
Lec-3, lab-3, field trips  
P/NP available  
Prereq.: PHOT 51 or demonstration of exit skills  
Advis: PHOT 53, 55, 83, and DSGN 101 (concur.)  
Through demonstration and hands-on experience students explore the basic and technical use of ambient, tungsten and electronic flash illumination as it is used in photography. Students will work with a variety of lighting equipment and accessories. CSU

PHOT 85B. Advanced Studio Lighting Techniques (4)  
Lec-4, lab-2, field trips  
P/NP available  
Prereq.: PHOT 55, 85A, and DSGN 101 or demonstration of exit skills  
Advis: PHOT 83  
Advanced lighting techniques with an emphasis on electronic strobe and mixed lighting techniques as used in advertising and product photography. Emphasis on client-photographer relationships, solving photographic problems imaginatively, and building a quality portfolio. CSU

PHOT 86. Mixed Media and the Photographic Image (3)  
Lec-2, lab-3, field trips  
P/NP available  
Prereq.: PHOT 81A and DSGN 101 or demonstration of exit skills  
Advis: PHOT 53  
Repeat: max. 6 units  
An exploration of the photographic image, exposing students to the concept of manipulation of the original to reveal forms of expression which are unattainable through straight photography. Emphasis will be given not only to established non-silver processes, but also to the integration of more contemporary mediums. CSU

PHOT 89. Large Format Transparency (3)  
Lec-1, lab-3  
Prereq.: PHOT 83 and 85A or demonstration of exit skills  
Advis: PHOT 53  
Repeat: max. 6 units  
An advanced, large format transparency (4x5) course with emphasis on color principles carried to further refinement and practical applications in studio and location photography. Special emphasis on product, interior and exterior photography, solving mixed lighting problems, utilization of special effects, and the building of a professional portfolio for job applications and presentations. CSU

PHOT 90. Portraiture (4)  
Lec-3, lab-3  
P/NP available  
Prereq.: PHOT 85A and DSGN 101 or demonstration of exit skills  
Advis: PHOT 83  
Introduction to photographing people utilizing tungsten, strobe, and daylight, with an emphasis on creating as well as interpreting the personality. Use of multiple lighting techniques in the studio and on location. Working successfully with subjects. Analysis and application of lighting techniques for social portraiture, including wedding, school, yearbook, family, and executive portraiture. CSU

PHOT 93. Editorial Photography (2)  
Lec-2, lab-1, field trips  
P/NP available  
Prereq.: PHOT 81A and DSGN 101 or demonstration of exit skills  
Techniques leading to a creative treatment of typical editorial assignments, including use of several format cameras, variable lenses, multiple electronic flash and typical effects essential to quality storytelling pictures. Students produce a portfolio including feature news, publicity, public relations, and feature story photographs. CSU

PHOT 95A. Beginning Color Printing (4)  
Lec-3, lab-3, field trips  
P/NP available  
Prereq.: PHOT 55 or demonstration of exit skills  
Exploration of color negative printing through an understanding of exposure, color films and papers, processing, color temperature and color theory. Sensitometry and densitometry as they apply to color negative printing. Emphasis on the aesthetics of color photography. CSU

PHOT 95B. Intermediate Color Printing (4)  
Lec-3, lab-3  
P/NP available  
Prereq.: PHOT 95A or demonstration of exit skills  
Repeat: max. 8 units  
Refinement of techniques learned in PHOT 95A emphasizing professional color output. Students produce color prints from color transparencies, negatives and internegatives. Methods include masking techniques when necessary. Explorative techniques such as combination printing, instant print material, collage, and painting with light. A specific color project will be completed that should be of the quality to be included in the students’ portfolio for employment. CSU

PHOT 99. Business Practices of Photography (3)  
Lec-3  
P/NP available  
A course for both commercial and fine art photographers who want to run successful businesses. Topics include writing a business plan, marketing and self-promotion, freelance skills, using computers, legal issues, pricing and estimating, taxes, insurance, and copyright. CSU

PHOT 101-102-103-104. Selected Topics in Photography (1-2-3-4)  
Lec-1,2,3,4 and/or lab-2,3,6, field trips  
P/NP available  
Prereq.: as required for topic  
Selected topics in photography will be explored through lectures, laboratory or studio demonstrations and exercises, field trips, class discussions, film, video, and/or television leading to a critical analysis and/or practical understanding and application of the topic or skill set under consideration. CSU

PHOT 101B. Hand Tinting Photographs
PHOT 101C. Self Portraiture
PHOT 101D. Landscape Photography
PHOT 101E. Informal Portraiture
PHOT 101F. Polaroid and Emulsion Transfer
PHOT 101G. Pinhole Photography
PHOT 101H. Digital Negatives for Black and White Contact Printing

PHOT 102A. Architectural Photography (2)  
Lec-2, lab-1, field trips  
P/NP available  
Prereq.: PHOT 85A or demonstration of exit skills  
Advis: PHOT 55, 83  
Repeat: max. 4 units  
The process of documenting buildings and other structures in their environments. Interiors and exteriors of domestic places are photographed for architectural applications. Topics specifically related to issues of architectural photography include: perspective control, use of different format cameras, filtration for incompatible light sources, attention to detail, and daylight effect on form. The role of the relationship of photographer to designer will be examined. CSU
Physical Education and Dance

PHOT 102B. Documentary/News Photography (2)
Lec-2, lab-1, field trips P/NP available
Prereq.: PHOT 81A and DSGN 101 or Demonstration of exit skills
Advise: PHOT 55
An exploration of photojournalism and documentary photography as applied to newspaper and magazine work, photo essay assignments and book projects. Legal and business issues, including fund raising and grant writing to support extended projects. Captioning and writing text to accompany photographic work. Mastering of story format using a variety of photo equipment and materials including location lighting, available light photography with high speed films, color transparency materials, and developing and printing in Black and White. CSU

PHOT 118. Independent Study (2)
Ind. st-10 P/NP available
Prereq.: PHOT 85B and either 81B or 95A or Demonstration of exit skills
Repeat: max. 4 units
Work on an independent photographic project having significant learning value in photography and acceptable to both the student and the instructor. Projects may be in photographic research, photographic criticism, computer imagery, or any other photographic performance area. CSU

PHOT 130. Portfolio Production (3)
Lec-3, lab-1, field trips P/NP available
Prereq.: DSGN 101 and PHOT 81B or 85B or 90 or 93 or 95A
Repeat: max. 6 units
Students will produce a portfolio to begin the process of preparing them for a professional photography career, photographic gallery exhibition, or transfer to a four-year institution. The class will address technical and aesthetic issues as well as portfolio presentation and marketing strategies. CSU

PHOT 501A. Photography for the Enthusiast (2)
Lec-2 P/NP available
Repeat: max 4 units
A basic course introducing photography and camera use to the general enthusiast. Introduction to small format cameras, color films, elementary lighting, and the aesthetics of photography. CSU

Physical Education and Dance
Office: Wellness 113
Phone Number: (415) 239-3411
Web Site: www.ccsf.edu/pe

Announcement of Curricula
Degree Curricula
Dance-Performance Art Major (AA)
The Dance Program has been an integral part of City College of San Francisco’s Physical Education Department since its inception, over 70 years ago. Due to the integrity, diversity and excellence in teaching this program has steadily grown, evidenced by student enrollment in dance that exceeds 3,000 per semester. Owing to the longevity of high standards and quality of instruction the prestigious Izzy Award for Sustained Achievement was awarded to the CCSF Dance Department in 2007.

The curriculum for the Associate Degree in Dance allows students to develop skills to pursue careers in choreography, dance performance, dance anthropology, dance education, and performance studies as well as fulfills most of the lower division requirements for many four-year institutions. We are dedicated to creating the “whole” dancer: nurturing mind, body, and spirit. The Dance Program provides comprehensive studies including history, theory, choreography, technique, and performance. Additional classes such as: Anatomy, Nutrition, Music, and Theater Arts are included to support the student's development.

The program highlights dance technique (ballet, modern, and African Haitian) and performance, while providing the student with all of the tools necessary to become a healthy and well-rounded dancer. The student will also have the opportunity to explore the sciences, history, and the Theater Arts as part of our diverse program. Good nutrition and proper alignment are emphasized and ample performance, choreography, and production opportunities are available. Special focus is given to prepare the dancer for transfer to upper division courses at a four year college or university.

Learning Outcomes
The emphasis of the Dance - Performance Art Major is to promote dance as an art form. Students majoring in Dance will develop a functional understanding of the fundamental concepts associated with dance as a performance art. The focus of the major will be dance technique, movement theory, repertory performance, and dance composition. Additionally, the major intends to promote dance as a community asset while supporting the student's ultimate objective, whether it is to transfer to a four-year institution, or to pursue a career in dance performance or education. The focus is on the individual dancer, and the aim of the major is to provide all of the tools necessary to make the student's journey successful. Students will acquire proficiency in dance technique, performance technique, body alignment, dance history, choreography, anatomy and physiology, and nutrition. Additionally, the dance student will develop skills in critical thinking, creative and innovative thinking, problem solving, observation, and evaluation, which can be applied to all aspects of life.

A placement audition will be required prior to enrollment in the major program. Students not placed into Intermediate or Advanced level Ballet or Modern classes will be required to take beginning level classes as prerequisites.

Prerequisites: DANC 120A, 125A

Courses Required for the Major in Dance - Performance Art

<table>
<thead>
<tr>
<th>Courses Required for the Major in Dance - Performance Art</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>DANC 100A Dance Composition</td>
<td>3</td>
</tr>
<tr>
<td>DANC 125B Intermediate Modern Dance</td>
<td></td>
</tr>
<tr>
<td>or DANC 125C Advanced Modern Dance</td>
<td>1-2</td>
</tr>
<tr>
<td>DANC 135A Beginning Tap Dance</td>
<td>1</td>
</tr>
<tr>
<td>DANC 132A Beginning African-Haitian Dance</td>
<td>1</td>
</tr>
<tr>
<td>DANC 34A Dance Conditioning</td>
<td>1</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>DANC 30 Dance Hist. – Dance in Cultural Context</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 12 Introduction to Nutrition</td>
<td></td>
</tr>
<tr>
<td>or NUTR 52 Elementary Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>DANC 120B Intermediate Ballet</td>
<td></td>
</tr>
<tr>
<td>or DANC 120C Advanced Ballet</td>
<td>1-2</td>
</tr>
<tr>
<td>DANC 135B Intermediate Tap Dance</td>
<td>1</td>
</tr>
<tr>
<td>DANC 132B Intermediate African-Haitian Dance</td>
<td>1</td>
</tr>
</tbody>
</table>
Dance Curricula

The curriculum for the Certificate of Accomplishment in Dance will allow students to develop the skills required to pursue careers in dance performance and dance education. The Dance Program provides comprehensive studies including history and theory, choreography, and technique and performance. To meet diverse students' needs various options are available. All students need to meet with a faculty member or file a dance program application and select a program of course totaling 17 units. Each course needs to be completed with a C or higher grade. At least 12 units need to be completed at CCSF. Students wishing to use equivalent courses from other colleges are responsible for providing supporting documentation in a timely manner. For further information call 452-5697, or visit the website at www.ccsf.edu/Resources/ccsframs (link: Dance)

Learning Outcomes

Upon completion of Dance certificate Options 1, 2, 3, or 4 students will be able to:

1) Acquire a foundation in technical dance and movement skills
2) Develop skills in critical and creative thinking, problem solving, focus, observation, and evaluation through a course of study including dance technique, choreography, performance technique, body alignment, dance history, and nutrition
3) Attain a working knowledge of correct body mechanics
4) Develop a movement repertoire which allows the composition of short dance studies
5) Apply knowledge of cultural backgrounds and their influence on different style of dance

Option 1 - Classical Dance Performance Certificate

Courses Required for the Certificate of Accomplishment in Classical Dance Performance

Courses in Workshop and Theory (8 units required)

Required Courses:
DANC 100A Dance Composition .........................3
DANC 30 Dance History – Dance in Cultural Context ...3

Required 2 units selected from:
DANC 34A Dance Conditioning ..........................1
DANC 101A Dance Performance Production ..........1
DANC 101B Dance Performance Production ..........2
DANC 102A Dance Repertory ...........................1
DANC 102B Dance Repertory ...........................2

Courses in Technique Electives (6 units-4 at Intermediate/Advanced level)
DANC 120A Ballet ........................................1
DANC 120B Intermediate Ballet ..........................1
DANC 120C Advanced Ballet ..............................2
DANC 121B Intensive Ballet ..............................2
DANC 125A Beginning Modern Dance ..................1
DANC 125B Intermediate Modern Dance ..............1
DANC 125C Advanced Modern Dance .................2
DANC 126B Intensive Modern Dance .................2

Electives (3 units)
DANC 34A Dance Conditioning ..........................1
DANC 122 Beginning Pointe Technique ................1
DANC 127 Dance Improvisation ........................1
MUS 4 Music Fundamentals ............................2
NUTR 52 Elementary Nutrition .........................3
TH A 150 Beginning Acting ............................3
TH A 200 Theatre Production ...........................3
Technique electives from Options 1, 2, 3, or 4 .......1-3
Total Units ............................................. 17

Option 2 - African Heritage Performance Certificate

Courses Required for the Certificate of Accomplishment in African Heritage Performance

Courses in Workshop and Theory (9 units)

Required:
DANC 100A Dance Composition .........................3
DANC 33 Black Traditions in American Dance .......3

Required 2 units selected from:
DANC 34A Dance Conditioning ..........................1
DANC 101A Dance Performance Production ..........1
DANC 101B Dance Performance Production ..........2
DANC 102A Dance Repertory ...........................1
DANC 102B Dance Repertory ...........................2

Courses in Technique Electives (6 units-4 at Intermediate/Advanced level)
DANC 100A Dance Composition .........................3
DANC 101A Dance Performance Production ..........1
DANC 101B Dance Performance Production ..........2
DANC 102A Dance Repertory ...........................1
DANC 102B Dance Repertory ...........................2

Electives (3 units)
AFAM From Funk to Hip Hop ............................3
DANC 37 Feldenkrais for Dance .........................1
HUM 48 African American Music, Art, Lit ..........3
MUS 23 Jazz Hist, Musical Trad of the Afr Am ........... 3
MUS 21 Traditional African Music ....................... 3
Technique electives from Options 1, 2, 3, or 4 .......... 1-3
Total Units ............................................. 17

Option 3 - Social and Folk Dance Performance Certificate

Courses Required for the Certificate of Accomplishment in Social and Folk Dance Performance

Courses in Workshop and Theory (9 units required)
Required:
DANC 33 Analysis of Folk and Social Dance ............. 2
Additional 3-5 units selected from:
DANC 107A Folk Dance Production ...................... 1
DANC 107B Folk Dance Production ...................... 2
DANC 108A Ballroom Dance Prod & Comp ............... 1
DANC 108B Ballroom Dance Prod & Comp ............... 2
Additional 2-4 units selected from:
DANC 109A Swing Production ............................ 1
DANC 109B Swing Production ............................ 2
DANC 110A Salsa Production ............................. 1
DANC 110B Salsa Production ............................. 2
DANC 111A Argentine Tango Production ................. 1
Courses in Technique Electives (8 units-4 at Int/Adv level)
DANC 140A Beg. European Folk Dance ................. 1
DANC 140B Int. European Folk Dance ................. 1
DANC 141A Beg. International Folk Dance ............. 1
DANC 141B Int. International Folk Dance ............. 1
DANC 142A Beg. Contra Square & Sequence ............ 1
DANC 142B Int. Contra Square & Sequence ............ 1
One unit from Option 1, 2, or 4 ......................... 1
Select 3-6 units from the following:
DANC 145B Ballroom Dance ............................. 1
DANC 146A Beg. Waltz Styles & Techniques ........... 1
DANC 146B Int. Waltz Styles & Techniques ........... 1
DANC 150B Int. Swing Dance Forms .................... 1
DANC 150C Adv. Swing Dance Forms .................... 1
DANC 151 Lindy Hop ..................................... 1
DANC 155B Int. Latin Amer Social Folk Dance ........ 1
DANC 155C Adv. Latin Amer Social Folk Dance ...... 1
DANC 160B Int. Argentine Tango ......................... 1
DANC 160C Adv. Argentine Tango ......................... 1
DANC 161 Argentine Tango Follower’s Tech ........... 1
Total Units ............................................. 17

Option 4 - Dance Aerobics and Fitness Certificate

Courses Required for the Certificate of Accomplishment in Dance Aerobics and Fitness

Courses in Workshop and Theory (7 units)
DANC 100A Dance Composition ......................... 3
DANC 34 Dance Conditioning ............................ 3
P E 8 Intro to Fitness & Training ......................... 3
P E 20/HOEC 108 Sports Nutrition ...................... 3
Courses in Technique Electives (7 units)
DANC 137A Beginning Hip Hop Dance .................. 1
DANC 137B Intermediate Hip Hop Dance ............... 1
DANC 170 Dance Aerobics ................................ 1
P E 200A-B-C Fitness Center Super Circuit ............ 5-2
P E 208 Aerobic Fitness ................................ 1
P E 209 Step Aerobics ................................ 1
P E 210 Boxercise ...................................... 1
P E 216 Body Sculpting .................................. 1
P E 217 Stretching and Flexibility Devel. ............ 1
P E 219A Beginning Yoga .............................. 1
P E 221 Yoga Movement .................................. 1
One unit technique from Option 1, 2, or 3 .......... 1
Electives (3 units)
HLTH 35 Holistic Health Practices ...................... 3
HLTH 41 Survey and Management of Stress .......... 3
P E 9 Fit or Fat ........................................ 2
P E 14 Women’s Fitness and Aging ...................... 3
P E 222 Introduction to Feldenkrais ..................... 1
Technique electives from Options 1, 2, or 3 .... 1-2
Total Units ............................................. 17

Yoga Instruction Certificate

Program Goals and Objectives. The Certificate of Accomplishment in Yoga Instruction is comprehensive in nature, reflecting a commitment to benefit local populations by offering lifelong learning opportunities which can be summarized as: (a) general and liberal education, (b) career and vocational education, and (c) adult and continuing education. The Yoga Instructor Certificate offers pathways for students to meet any and/or all of these three goals.

Catalog Description. The 17-unit Certificate of Accomplishment in Yoga Instruction is designed to facilitate achievement of the following learning outcomes:

A. Provides students with industry standard requirements needed to teach beginning level yoga in a variety of settings;
B. Provides students with an industry standard foundation upon which they can complete further studies to become yoga teacher trainers;
C. Provides a pathway for transfer to both the DC and CSU systems; and,
D. Provides an opportunity for students to expand their personal yoga practices.

This 2-year college level program exceeds the requirements of the nationally recognized Yoga Alliance, a non-profit organization that has established national industry standards for yoga teacher training. Potential employment opportunities for Yoga teachers include teaching in a variety of settings from private practice to health clubs, spas, yoga studios, hospitals, and private schools, as well as in after school and preschool settings. Most yoga teachers find it necessary to supplement their teaching income with additional income.

Program prerequisites include: A.) completion of P E 219B or P E 219B exit skills; B.) demonstration of yoga skills; C.) filing a program application; and, D.) an informational interview with the Yoga Program Coordinator. At the interview the student will get a program orientation and will select a program of courses totaling 17 units that can be completed in 2 years. Each course needs to be completed with a C or higher grade. At least 12 units must be completed at CCSE.

Students wishing to use equivalent courses from other colleges are responsible for providing all supporting documentation before the informational interview. In addition to the required coursework, students will be informed of a range of recommended courses that are not required for the certificate, but may assist with transfer to a 4-year
college, personal growth, and student expertise. Students will work closely with a yoga mentor and are encouraged to consult with a CCSF academic counselor to ensure they are moving towards fulfillment of their goals.

Program Prerequisites: P E 219B Intermediate Yoga or demonstration of P E 219B exit skills.

Courses Required for the Certification of Accomplishment in Yoga Instructorn

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>P E 220 Intensive Yoga</td>
<td>2</td>
</tr>
<tr>
<td>ONE course from the following</td>
<td></td>
</tr>
<tr>
<td>ANAT 14 Introduction to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>or ANAT 25 General Human Anatomy</td>
<td></td>
</tr>
<tr>
<td>or PHYS 12 Introduction to Human Physiology</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>P E 220 Intensive Yoga</td>
<td>2</td>
</tr>
<tr>
<td>P E 218 Restorative Yoga</td>
<td>1</td>
</tr>
<tr>
<td>ONE course from the following</td>
<td></td>
</tr>
<tr>
<td>DANC 34 Dance Conditioning</td>
<td></td>
</tr>
<tr>
<td>or DANC 37 Feldenkrais for Dance</td>
<td></td>
</tr>
<tr>
<td>or P E 214 Weight Training</td>
<td></td>
</tr>
<tr>
<td>or P E 216 Body Sculpting</td>
<td></td>
</tr>
<tr>
<td>or P E 217 Stretch and Flexibility</td>
<td></td>
</tr>
<tr>
<td>or P E 222 Introduction to Feldenkrais</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>P E 21 Teaching Movement</td>
<td>3</td>
</tr>
<tr>
<td>P E 221 Yoga Movement</td>
<td>1</td>
</tr>
<tr>
<td>WKEX 805 Work Experience</td>
<td>1</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>WKEX 806 Work Experience</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
</tr>
</tbody>
</table>

Announcement of Courses

Dance

Credit, Degree Applicable Courses:
DANC 30. Dance History – Dance in Cultural Context (3)
Lec-3 P/NP available
Lectures, readings, films and discussions on theory and development of dance from its evolution in anthropological sources to 20th century contemporary dance. This survey history course will touch on the historical basis of dance and will emphasize the history of classical ballet, American/European modern dance, African-Haitian dance and the American idioms of tap and jazz. CSU/UC
Formerly P E 30

DANC 32. Black Tradition in American Dance (3)
Lec-3, field trips P/NP available
Advise: ENGL 94
This course examines the use of the African American dance aesthetic by performers, dancers, choreographers, historians, and dance theorists, from the 19th century through 21st century, as they created and contributed to the idioms of modern, jazz, ballet, street vernacular and traditional African based dance forms in the United States. CSU/UC
Formerly P E 33

DANC 33. Folk, Ballroom, and Square Dance Activities Analysis (2)
Lec-2 P/NP available
Advise: EXPERIENCE IN FOLK AND BALLROOM DANCE RECOMMENDED
Repeat: max. 8 units
Analysis and performance of past and present ballroom, folk and square dances. Dance notations and directions will be compiled and employed. CSU/UC
Formerly P E 12

DANC 34A. Dance Conditioning (1)
Lab-2 P/NP available
Repeat: max. 4 units
An introduction to conditioning techniques which promote body awareness, improve body alignment, enhance and expedite dance skills and prevent injury. CSU/UC
Formerly P E 564

DANC 37. Feldenkrais for Dance (1)
Lab-2 P/NP available
Advise: DANC 120A or 125A or 130A or 132A or 137A
Repeat: max. 3 times
Instruction and practice in applying the Feldenkrais Method to address specific issues of dance technique and performance. Processes which enhance refinement of motor learning as related to human expression will be explored. Participants improve muscular habits and kinesthetic awareness, refine coordination, relieve tension, and prevent injury. CSU/UC

DANC 100A. Dance Composition (3)
Lab-10 P/NP available
Repeat: max. 9 units
A dance class that expands and explores movement techniques. Improvisation and choreographic structures are presented for student study. Culminates with a studio demonstration or theatre performance. CSU/UC
Formerly P E 3

DANC 101A-101B-101C. Dance Performance Production (1-2-3)
Lab-2,5,7 P/NP only
Repeat: combination max. 3 times
Courses may be taken in any sequence.
Dance choreography will be learned and performed in a theatrical or classroom environment. Participation in the theatrical disciplines of lighting, costumes and makeup as it relates to performance will also be learned. CSU/UC
Formerly P E 17A, B, C

DANC 102A-102B-102C. CCSF Repertory Dance Company (1-2-3)
Lab-3,6,9, field trips P/NP available
Repeat: combination max. 3 times
This course is designed as a touring dance company. Students will learn dance works from faculty and guest choreographers. Touring venues include CCSF, San Francisco high schools, San Francisco Bay Area colleges, local theatres, and public events. Includes workshops on performance techniques and lectures on choreographic theory. CSU/UC
Formerly P E 18A, B, C

DANC 107A-107B-107C. Folk Dance Production (1-2-3)
Lab-2, 4, 6, field trips P/NP only
Repeat: combination max. 3 times
Courses may be taken in any sequence.
Students will have the opportunity to learn and perform intermediate-advanced level folk dance choreographies in 3-5 on and off campus
various venues each semester in traditional style costumes. CSU/UC
Formerly P E 5A, B, C

Lab-3,6,9 P/NP only
Repeat: combination max. 3 times
Courses may be taken in any sequence.
Performance of past and present ballroom dance choreographies in a theatrical or competitive setting. CSU/UC
Formerly P E 25A, B, C

DANC 109A-109B. Swing Dance Production (1-2)
Lab-3,6 P/NP only
Prereq.: DANC 155B
Repeat: combination max. 3 times
Swing styles, including Lindy, West Coast, Balboa, Shag, and Blues techniques leading to group or solo performances will be learned. Styles and forms will be examined through demonstration and practice. Emphasis will be on the effective presentation of patterns. CSU/UC
Formerly P E 22A, B

DANC 110A-110B. Salsa Dance Production (1-2)
Lab-2,4 P/NP only
Prereq.: DANC 155B
Repeat: combination max. 3 times
Various salsa styles and techniques leading to group or solo performances will be learned. Styles and formations, including rueda, will be examined through demonstration and practice. Emphasis will be on the effective presentation of patterns. CSU/UC
Formerly P E 24A, B

DANC 111A. Argentine Tango Productions (1)
Lab-2, field trips P/NP available
Repeat: max. 4 units
Performance-oriented course: development, critique and rehearsal of tango sequences for public performance informed by analysis of videotaped footage of professional tango choreography. CSU/UC
Formerly P E 578

DANC 120A. Beginning Ballet (1)
Lab-2 P/NP available
Repeat: DANC 120A-120B-120C combination max. 3 times
Introduction to the theory and practice of beginning ballet technique and vocabulary. Application of basic technical ballet vocabulary at the barre and in center practice. CSU/UC
Formerly P E 504A

DANC 120B. Intermediate Ballet (1)
Lab-2 P/NP available
Repeat: DANC 120A-120B-120C combination max. 3 times
A continuation of the theory and practice of classical ballet with an emphasis on intermediate ballet technique and vocabulary. Application of intermediate ballet vocabulary at the barre and in center practice. CSU/UC
Formerly P E 504B

DANC 120C. Advanced Ballet (2)
Lab-4 P/NP available
Repeat: DANC 120A-120B-120C combination max. 3 times
A continuation of the theory and practice of classical ballet with an emphasis on advanced ballet technique and vocabulary. Application of advanced ballet vocabulary at the barre and in center practice. CSU/UC
Formerly P E 504C

DANC 121B. Intensive Ballet (2)
Lab-4 P/NP available
Repeat: max. 8 units
A continuation of the theory and practice of classical ballet with an emphasis on intermediate ballet technique and vocabulary. Application of intermediate ballet vocabulary at the barre and in center practice will be explored. CSU/UC
Formerly P E 604B

DANC 122. Beginning Pointe Technique (1)
Lab-2 P/NP available
Prereq.: DANC 120B or 120C and/or a screening test evaluating technique
Repeat: max. 4 units
Theory and practice of basic pointe technique which includes a historical review, relevant foot anatomy, selection, preparation, and care of pointe shoes, pre-pointe exercises, elementary pointe vocabulary, and safety guidelines to prevent injury. CSU/UC
Formerly P E 569

DANC 125A-125B-125C. Modern Dance (1-1-2)
Lab-2, 4 P/NP available
Advise for DANC 125B: DANC 125 A
Advise for DANC 125C: DANC 125 B
Repeat: combination max. 3 times
Beginning, intermediate and advanced dance techniques. Emphasis on body movement through modern dance, improving alignment, muscular endurance, flexibility, coordination, musicality, performance technique, and dance vocabulary appropriate to training. Includes improvisation and choreography. Techniques explored: Graham, Hawkins, Cunningham, Limon, Horton, and Dunham. CSU/UC
Formerly P E 526A, B, C

DANC 125A. Beginning
DANC 125B. Intermediate
DANC 125C. Advanced

DANC 126A-126B-126C. Modern Dance (1-1-2)
Lab-2, 4 P/NP available
Advise for DANC 126B: DANC 125 A
Advise for DANC 126C: DANC 125 B
Repeat: combination max. 3 times
Beginning, intermediate and advanced dance techniques. Emphasis on body movement through modern dance, improving alignment, muscular endurance, flexibility, coordination, musicality, performance technique, and dance vocabulary appropriate to intermediate and beginning advanced dance training. Course work includes ensemble work, contact improvisation and choreography. Examples of the techniques explored: Graham, Ailey, Hawkins, Cunningham, Limon, Horton, and Dunham. CSU/UC
Formerly P E 526A, B, C

DANC 127. Dance Improvisation (1)
Lab-2 P/NP available
Repeat: max. 4 units
Dance Improvisation is a non-traditional approach to dance. Emphasis will be placed on improvisational movement techniques that integrate drama, comedy, music, vocal art forms and various choreographic techniques. The students, for performances at some unconventional sites on campus, will create individual projects and group collaborations. CSU/UC
Formerly P E 19
DANC 130A-130B-130C. Jazz Dance (1-1-1)  
Lab-2  
P/NP available  
Repeat: combination max. 4 units  
Beginning, intermediate, and advanced jazz dance techniques, patterns, routines, choreography, and improvisation. CSU/UC  
Formerly P E 523A, B, C  

DANC 130A. Beginning  
DANC 130B. Intermediate  
DANC 130C. Advanced  

DANC 132A-132B-132C. African-Haitian Dance (1-1-1)  
Lab-2  
P/NP available  
Repeat: combination max. 4 units  
Beginning, intermediate, and advanced study of African-Haitian Dance as a vehicle to understand and appreciate the impact and manifestation of the African Culture in the Caribbean and North America. CSU/UC  
Formerly P E 500A, B, C  

DANC 132A. Beginning  
DANC 132B. Intermediate  
DANC 132C. Advanced  

DANC 135A. Beginning Tap Dance (1)  
Lab-2  
P/NP available  
Repeat: max. 4 units  
Beginning Tap Dance briefly reviews the history of tap and examines beginning level tap dance skills through demonstration and practice. Emphasis is on rhythm and the acquisition of beginning level tap vocabulary and technique. CSU/UC  
Formerly P E 541A  

DANC 135B. Intermediate Tap Dance (1)  
Lab-2  
P/NP available  
Repeat: max. 4 units  
Intermediate Tap Dance reviews the history of tap and examines intermediate level tap dance skills through demonstration and practice. Emphasis is on performance of more complex rhythm and the acquisition of Intermediate level tap vocabulary and technique. CSU/UC  
Formerly P E 541B  

DANC 136. Tap Dance Intensive (2)  
Lab-4  
P/NP available  
Prereq.: DANC 135B or demonstration of DANC 135B exit skills  
Repeat: max. 8 units  
Tap Dance Intensive refines intermediate tap dance skills and explores improvisation and choreography through demonstration and practice. Focus is on tap history and its relationship to jazz music which provide guidelines for tap improvisation and choreography. CSU/UC  
Formerly P E 641B  

DANC 137A-137B. Hip-Hop Dance (1)  
Lab-2  
P/NP available  
Repeat: combination max. 4 units  
Beginning and intermediate hip-hop dance techniques, patterns, routines, choreography and improvisational group projects/presentations. CSU/UC  
Formerly P E 573A, B  

DANC 137A. Beginning  
DANC 137B. Intermediate  

DANC 140A. Beginning European Folk Dance (1)  
Lab-2  
P/NP available  
Repeat: max. 4 units; any combination of A and B  
Introduction to various European Folk dances. Styles and forms will be examined through demonstration and practice. Emphasis will be on step patterns and dance positions appropriate within and between the nations that comprise the European Union. CSU/UC  
Formerly P E 581A  

DANC 140B. Intermediate European Folk Dance (1)  
Lab-2  
P/NP available  
Prereq.: DANC 140A, DANC H1A OR DEMONSTRATION OF BEGINNING EXIT SKILLS  
Repeat: max. 4 units; any combination of A and B  
Intermediate level of various European Folk dances. Partner and non-partner styles and forms will be examined through demonstration and practice. Emphasis will be on expanding the dance repertoire, to include more complex step patterns, rhythms, and structures appropriate within and between nations that comprise the European Union. CSU/UC  
Formerly P E 581B  

DANC 141A-141B International Folk Dance (1-1)  
Lab-2  
P/NP available  
Repeat: combination max. 4 units  
In 141A, performance of beginning partner and non-partner folk dances from around the world; 141B continues with intermediate level material. CSU/UC  
Formerly P E 518A, B  

DANC 141A. Beginning  
DANC 141B. Intermediate  

DANC 142A. Beginning Contra, Square & Sequence Dance (1)  
Lab-2  
P/NP available  
Repeat: max. 4 units; any combination of A and B  
Introduction to various contra, square & sequence dances. Styles and forms will be examined through demonstration and practice. Emphasis will be on patterns and dance positions appropriate within and between the selected forms. CSU/UC  
Formerly P E 591A  

DANC 142B. Intermediate Contra, Square & Sequence Dance (1)  
Lab-2  
P/NP available  
Prereq.: DANC 142A OR DEMONSTRATION OF BEGINNING EXIT SKILLS  
Repeat: max. 4 units; any combination of A and B  
Intermediate figures to various contra, square & sequence dances. Styles and forms will be examined through demonstration and practice. Emphasis will be on patterns and dance positions appropriate within and between the selected forms. CSU/UC  
Formerly P E 591B  

DANC 145A-145B. Ballroom Dance (1-1)  
Lab-2  
P/NP available  
Repeat: combination max. 4 units  
Beginning and intermediate ballroom dance; emphasis on step patterns and dance positions for a complete range of dances such as waltz, swing, cha-cha, salsa, rumba, fox trot, merengue, samba, w. c. swing, quickstep, Viennese waltz and nightclub two step. CSU/UC  
Formerly P E 535A, B  

DANC 145A. Beginning  
DANC 145B. Intermediate
DANC 146A. Beginning Waltz Styles and Techniques (1)
Lab-2 P/NP available
Repeat: max. 4 units
Introduction to various waltz styles and techniques will be examined through lecture and practice. Emphasis will be on basic step patterns and dance positions appropriate to each genre, musicality, leading and following techniques, and styling expression. CSU/UC
Formerly P E 538A

DANC 146B. Intermediate Waltz Styles and Techniques (1)
Lab-2 P/NP available
Prereq.: DANC 146A
Repeat: max. 4 units
Continuation of various waltz styles and techniques, including American Bronze, Silver, Cross step, and Viennese, will be examined through lecture and practice. Emphasis will be on intermediate step patterns and combinations appropriate to each genre, as well as improved musicality, leading and following techniques, and styling expression. CSU/UC
Formerly P E 538B

DANC 147A. Beginning International Ballroom Dance (1)
Lab-2 P/NP available
Repeat: max. 4 units
International ballroom dance with emphasis on step patterns from both the Standard and Latin Styles. Standard dances included are Waltz, Foxtrot, American Tango, Viennese Walt and Quickstep. Latin dances are Samba, Cha-Cha-Cha, Paso Doble, Jive and Rumba. A selection of dances to be learned will be from both styles. CSU

DANC 150A. Beginning Swing Dance (1)
Lab-2 P/NP available
Repeat: max. 4 units; any combination of 150A, B or C
An introduction to the popular American social dances known as Swing. The main emphasis will be on step patterns and dance positions for East Coast Swing, West Coast Swing and Lindy Hop. Other swing related dances may be learned. CSU/UC
Formerly P E 570A

DANC 150B-150C. Intermediate/Advanced Swing Dance Forms (1-1)
Lab-2 P/NP available
Repeat: P E 570-570B-570C combination max. 4 units
Intermediate and advanced skills in the popular American dances known as “Swing,” while exploring the cultural scene that created them. CSU/UC
Formerly P E 570B, C

DANC 150B. Intermediate
DANC 150C. Advanced

DANC 151A. Beginning Lindy Hop (1)
Lab-3 P/NP available
Repeat: max. 4 units (any combination of 151A or B)
An introduction to the original American swing dance known as the Lindy Hop. The student will develop basic skills in Lindy Hop and explore the history of the dance from the late 1920’s to the present. CSU/UC
Formerly P E 571A

DANC 151B. Intermediate Lindy Hop (1)
Lab-3 P/NP available
Advise: DANC 151A
Repeat: max. 4 units (any combination of 151A or B)
Develops intermediate skills in the popular American swing dance known as Lindy Hop. Students will build on basic skills learned in beginning classes. Students should be familiar with the Swing Out, Circle and Lindy Charleston. CSU/UC
Formerly P E 571B

DANC 155A-155B-155C. Latin American Dance (1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Developing skill in such dances as Merengue, Tango, and Salsa, while exploring historical and cultural influences. Recognizing musical styles and development. CSU/UC
Formerly P E 560A, B, C

DANC 155A. Beginning
DANC 155B. Intermediate
DANC 155C. Advanced
Prereq.: DANC 155B

DANC 160A-160B-160C. Argentine Tango (1-1-1)
Lab-2, field trips P/NP available
Repeat: combination max. 4 units
Course covers the social, improvisational form of Argentine tango and an exploration of its culture as manifested in film, visual art and the printed word. Students learn to dance, arranging essential elements of tango vocabulary in an infinite number of ways with different partners. CSU/UC
Formerly P E 576A, B, C

DANC 160A. Beginning
DANC 160B. Intermediate
DANC 160C. Advanced

DANC 161. Follower’s Technique for Argentine Tango (1)
Lab-2 P/NP available
Repeat: max. 4 units
Refinement of placement, styling of leg & footwork, carriage of the upper body, adornments, lead/follow and musicality in Argentine tango through exercises done at the barre and on the center floor, with and without partners. Focus on the role of the follower in the tango dance. Course highlights the contribution of women in the construction of tango culture past and present. CSU/UC
Formerly P E 577

DANC 170. Dance Aerobics (1)
Lab-2 P/NP available
Repeat: max. 4 units
Course designed to use the dance vocabulary of contemporary street funk, jazz, ballet, modern and traditional African dance to develop, increase and maintain cardiovascular strength, muscular coordination, agility and postural awareness. CSU/UC
Formerly P E 567

DANC 171. Cheer/Dance Squad (2)
Lec-1, lab-4, field trips
Repeat: max. 8 units
Designed to provide the student with information and training in
P E 6. Prevention and Care of Athletic Injuries (3)
Lec-2, lab-2 P/NP available
Introduces injuries commonly experienced by competitive athletes, discusses conditioning and evaluation methods used to identify and prevent injuries, and the basic management approaches used to treat injuries. Includes clinical experience and laboratory learning. CSU/UC
Formerly P E 512

P E 7. Coaching and Officiating (3)
Lab-3 P/NP available
Develops and augments student's knowledge of coaching and officiating in three selected sports. CSU/UC

P E 8. Introduction to Fitness, Training and Human Performance (3)
Lec-3
Overview of fitness, fitness assessment, training and human performance, including cellular adaptations to exercise, the physiological basis and scope of training, principles of training and training factors, components of training, training states, recovery methods and philosophy of training. CSU

P E 9. Fit or Fat: Exercise and Diet (2)
Lec-2 P/NP available
Comparison of obesity theories, current weight loss methods and associated technology. Determine and track change in fitness levels, plan a fitness program, and participate in a variety of exercises to promote an active lifestyle, emphasizing weight loss. CSU
Formerly P E 9A

P E 13. Sport and Society (3)
Lec-3
An introduction to the sociology of sport, to discuss and analyze issues about sports as a part of society. The history of sport, competition, children's programs, deviance, aggression, coaches in the sport experience, gender, ethnicity, social mobility, the economy, the media, and politics in sports. CSU

P E 14. Women's Fitness and Aging - A New Paradigm (3)
Lec-3, field trips P/NP available
Investigation of a new paradigm for women's fitness and active aging which recognizes the revolutionary impact fitness has on women's longevity. Additional topics include body image and fitness, physical activity's contribution to brain health, and the development of fitness action plans to enhance women's lives before, during, and after midlife. CSU/UC

P E 15. Workplace Ergonomics (2)
Lec-2, field trips P/NP only
Overview of the science of sports nutrition, with emphasis on nutrition as it applies to fitness, sport-specific training, and athletic performance. Topics include nutrient requirements and dietary recommendations, energy metabolism, weight management, special nutrient needs during training and competition, nutritional ergogenics. CSU

P E 20. Sports Nutrition (3)
Lec-3
Overview of the science of sports nutrition, with emphasis on nutrition as it applies to fitness, sport-specific training, and athletic performance. Topics include nutrient requirements and dietary recommendations, energy metabolism, weight management, special nutrient needs during training and competition, nutritional ergogenics. CSU

P E 29. Firefighting and Public Safety Conditioning (2)
Lec-1, lab-2 Repeat: max. 8 units
A specifically scaled class to develop functional physical performance capacity required for firefighters and law enforcement personnel through a series of traditional strength and conditioning protocols as well as individual and group related task based activities. CSU

P E 40. Appreciation and Analysis of Aquatics (2)
Lec-2 P/NP available
Emphasis on systems of play, strategy, rules, training programs, organizational procedures, and background for both spectators and participants. CSU/UC
Formerly P E 10A

P E 41. Baseball Analysis (2)
Lec-2 P/NP available
The mechanics, appreciation and analysis of individual and team play. Emphasis on skills and mechanics of individual play, strategy, rules, training programs, organizational methods, background and color. Course designed for spectators as well as participants. CSU/UC
Formerly P E 10B
P E 42. Appreciation and Analysis of Basketball (2)  
Lec-2  P/NP available  
Emphasis on systems of play, strategy, rules, training programs, organizational procedures, and background for both spectators and participants for the sport of Women's Basketball. CSU/UC  
Formerly P E 10C

P E 43. Appreciation and Analysis of Football (2)  
Lec-2  P/NP available  
This course emphasis on systems of play, strategy, rules, training programs, organizational procedures, and background for both spectators and participants. CSU/UC  
Formerly P E 10D

P E 45. Appreciation and Analysis of Soccer (2)  
Lec-2  P/NP available  
This course emphasis the soccer systems of play, strategy, rules, training programs, organizational procedures, and background from the perspective of coaches, players and spectators. CSU/UC  
Formerly P E 10F

P E 46. Appreciation and Analysis of Track and Field (2)  
Lec-2  P/NP available  
Emphasis on systems of play, strategy, rules, training programs, organizational procedures, and background for both spectators and participants. CSU/UC  
Formerly P E 10G

P E 47. Analysis of Fastpitch Softball (2)  
Lec-1, lab-3  P/NP available  
Repeat: max. 8 units  
Demonstrates and analyzes the individual offensive and defensive skills required in fastpitch softball, as well as identifying offensive and defensive team strategies necessary for successful game play. CSU  
Formerly P E 11

P E 200A-200B-200C. Fitness Center Super Circuit (0.5-1-1)  
Lab-2  P/NP only  
Repeat: combination max. 3 times  
The super circuit located in the Fitness/Wellness Center utilizes an interactive fitness network system providing feedback to the user with an emphasis on proper use of free weights, strength equipment and interval training on cardio machines and individualized fitness programs to promote strength, muscle toning and cardiac fitness. CSU/UC  
Formerly P E 50A, B, C

P E 202. Interactive Fitness (2)  
Lab-4  P/NP only  
The Super Circuit allows students to improve fitness levels utilizing pulse/heart rate monitors, strength training and flexibility exercises. Students will learn to create a balanced lifelong exercise program using circuit training techniques to develop cardiovascular fitness, muscular strength and endurance, and flexibility. CSU/UC  
Formerly P E 52

P E 203. Intramural Competition (0)  
Competition in individual and team sports under game conditions; emphasis on coeducational participation. Students may compete individually or as members of teams representing clubs or special interest groups, but always subject to supervision and to the approval of the instructor. CSU  
Formerly P E 70

P E 204A-204B-204C. Physical Fitness (1-1-1)  
Lab-2  P/NP available  
Repeat: max. combination 4 units  
Prereq: P E 204B: P E 204A; P E 204C: P E 204B  
Physical fitness classes at all levels are scheduled to help students fit a vigorous and satisfying period of exercise into a pattern for future use. The aim is to help students gain insight into their own personal aptitudes and abilities and also motivate students to explore their own range of movement in terms of agility, flexibility, strength, and endurance. CSU/UC  
Formerly P E 527A, B, C  
P E 204A. Beginning  
P E 204B. Intermediate  
P E 204C. Advanced

P E 205. Running and Conditioning (1)  
Lab-2  P/NP available  
Repeat: max. 4 units  
Principles and practices of conditioning the body with emphasis on aerobic (cardiovascular) fitness by increasing endurance through running, increasing the body's range of motion through stretching and flexibility activities. CSU/UC  
Formerly P E 528

P E 206. Walking for Fitness (1)  
Lab-2  P/NP available  
Repeat: max. 4 units  
Principles and practices of conditioning the body with emphasis on aerobic (cardiovascular) fitness by increasing endurance through aerobic walking, and by increasing the body's range of motion through stretching and flexibility activities. CSU/UC  
Formerly P E 557

P E 207. Walking for Fitness in San Francisco (1)  
Lab-2  P/NP available  
Repeat: max. 4 units  
Principles and practices of walking for fitness by participation in weekly walks throughout the city of San Francisco. CSU/UC  
Formerly P E 568

P E 208A-208B-208C. Aerobic Fitness (1-1-1)  
Lab-2  P/NP available  
Repeat: combination max. 4 units  
Beginning, intermediate and advanced techniques with emphasis on cardiovascular endurance utilizing physical activity which increased the heart rate to each individual's target zone. CSU/UC  
Formerly P E 558A, B, C  
P E 208A. Beginning  
P E 208B. Intermediate  
P E 208C. Advanced

P E 209. Step Aerobics (1)  
Lab-2  P/NP available  
Repeat: max. 4 units  
Introduction to the principles and practices of step aerobics through aerobic training: stepping up and down on adjustable platforms, performing in a routine at about 120 steps per minute. CSU/UC  
Formerly P E 565
P E 210. Boxercise (1)
Lab-2 P/NP available
Repeat: max. 4 units
Boxercise is a conditioning fitness class utilizing aerobic/boxing techniques with an emphasis on cardiovascular and muscular endurance. CSU/UC
Formerly P E 579

P E 211. Body Building (1)
Lab-2 P/NP available
Repeat: max. 4 units
Physical development and muscle toning through weight training. CSU/UC
Formerly P E 509

P E 212. Olympic Weightlifting (1)
Lab-2 P/NP available
Repeat: max. 3 units
Students will be instructed in the proper protocols to successfully execute the Clean and Jerk and the Snatch. Principles of Olympic Weightlifting, training techniques and safety guidelines will be presented. CSU/UC
Formerly P E 585

P E 213. Competitive Powerlifting (1)
Lab-2 P/NP available
Repeat: max. 3 units
Students will be instructed in the proper protocols to successfully execute the Dead Lift, Bench Press, and Squat for maximal strength gains. Principles of Competitive Powerlifting, training techniques and safety guidelines will be presented. CSU/UC
Formerly P E 586

P E 214. Weight Training (1)
Lab-2 P/NP available
Repeat: max. 4 units
Students will be instructed in the proper techniques utilizing free weights and strength training machines in order to develop specific muscle groups. Principles of strength training, various weight training techniques and safety guidelines will be presented. CSU/UC
Formerly P E 590

P E 215A-215B. Strength and Circuit Training (1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning and intermediate class in weight conditioning and circuit training with an emphasis on proper use of free weights and interval training (use of the stair master, treadmill and life cycle) to promote strengthening, toning and cardiac fitness. CSU/UC
Formerly P E 555A, B

P E 215A. Beginning
P E 215B. Intermediate

P E 216. Body Sculpting (1)
Lab-2 P/NP available
Repeat: max. 4 units
Introduction to the principles and practices of body sculpting through weight training with hand held weights, dynabands and individual body weight. CSU/UC
Formerly P E 562

P E 217. Stretching and Flexibility Development (1)
Lab-2 P/NP available
Repeat: max. 4 units
A physical activity to develop the body, with emphasis on increasing the overall flexibility and strength of the major muscle groups. CSU/UC
Formerly P E 561

P E 218. Senior and Restorative Yoga (1)
Lab-2 P/NP available
Repeat: max. 4 units
A gentle approach to Hatha Yoga that includes a representative sample of beginning and restorative yoga postures, breathing exercises, and relaxation techniques. Adaptation of the poses to improve alignment, increase blood circulation, flexibility, muscular strength, and to alleviate stress is emphasized. CSU/UC
Formerly P E 554C

P E 219A. Beginning Yoga (1)
Lab-2 P/NP available
Repeat: max. 4 units
An introduction to the principles and practice of yoga as a physical discipline. Basic yoga postures, breathing exercises, alignment principles, combination of poses, and relaxation techniques will be included. An overview of yoga history and philosophy will be presented. CSU/UC
Formerly P E 554A

P E 219B. Intermediate Yoga (1)
Lab-2 P/NP available
Prereq: P E 219A or demonstration of beginning exit skills
Repeat: max. 4 units
Intermediate yoga will build upon skills learned in beginning yoga. Emphasis will be placed on a representative sample of intermediate level postures and yoga combinations, breathing exercises, and relaxation techniques. A continuation of yoga history, philosophy, and current trends will be presented. CSU/UC
Formerly P E 554B

P E 220. Intensive Yoga (2)
Lec-1, lab-3 P/NP available
Prereq: P E 219B or demonstration of beginning exit skills
Repeat: max. 8 units
Intensive yoga offers further practice and refinement of intermediate level yoga postures, breathing and meditation techniques. A continuation of yoga history, philosophy, and current trends will be presented. There is an emphasis on alignment techniques and practical application of yoga principles in daily life. CSU/UC
Formerly P E 654B

P E 221. Yoga movement (1)
Lab-2 P/NP available
Advis: P E 219A
Repeat: max. 4 units
Yoga movement is a dynamic form of yoga that integrates elements of dance while increasing strength and flexibility. Fundamental yoga postures will be sequenced into combinations that include music, spatial design and awareness, energy qualities, and allow for individual creativity and expression. CSU/UC
Formerly P E 553
P E 222. Introduction to Feldenkrais® (1)
Lab-2 P/NP available
Repeat: max. 4 units
The Feldenkrais Method® is a body-mind approach to improving movement comfort, function, and physical skill. Emphasis is on applying the unique learning process of the Feldenkrais Method® to improve muscular habits, relieve tension, and refine coordination and performance. Appropriate for restorative needs, plus those of the specialized athlete or artist. CSU/UC
Formerly P E 582

P E 230A-230B. Archery (1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning and intermediate archery. Emphasis on skills, official rules, etiquette, safety, methods of shooting and scoring. CSU/UC
Formerly P E 501A, B

P E 230A. Beginning
P E 230B. Intermediate

P E 231A-231B. Badminton (1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning and intermediate badminton; its history, rules, skills and playing strategies. CSU/UC
Formerly P E 503A, B

P E 231A. Beginning
P E 231B. Intermediate

P E 232A-232B-232C. Baseball (1-1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning, intermediate and advanced baseball. Analysis and practice of the fundamental skills, techniques, and theories of baseball through active participation. Lessons and drills designed to improve and increase awareness of the skills involved in playing baseball. CSU/UC
Formerly P E 505A, B, C

P E 232A. Beginning
P E 232B. Intermediate
P E 232C. Advanced

P E 233A-233B-233C. Basketball (1-1-1)
Lab-2 P/NP available
Prereq: P E 232B; P E 233A; P E 233C; P E 233B
Repeat: combination max. 4 units
Beginning, intermediate, and advanced basketball; emphasis on skill, agility, body conditioning and endurance. CSU/UC
Formerly P E 506A, B, C

P E 233A. Beginning
P E 233B. Intermediate
P E 233C. Advanced

P E 234A-234B-234C. Fencing (1-1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning, intermediate, and advanced fencing; emphasis on boutings, judging, directing, scoring, parries, ripostes, and fencing with electrical equipment. CSU/UC
Formerly P E 513A, B, C

P E 234A. Beginning
P E 234B. Intermediate
P E 234C. Advanced

P E 235A-235B-235C. Football (1-1-1)
Lab-2 P/NP available
Prereq: P E 235B; P E 235A; P E 235C; P E 235B
Repeat: combination max. 4 units
Introduces the fundamentals of touch football, emphasizes skills, ability, conditioning, endurance, technique, schematics and emphasizes drills which will augment the teaching of technical skills. CSU/UC
Formerly P E 519A, B, C

P E 235A. Beginning
P E 235B. Intermediate
P E 235C. Advanced

P E 236A-236B-236C. Golf (1-1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning, intermediate, and advanced golf. Demonstrates basic skills needed to play a round of golf; emphasizes principles of the full swing, the chip, the putt, basic rules of play, golf etiquette and golf terminology. CSU/UC
Formerly P E 520A, B, C

P E 236A. Beginning
P E 236B. Intermediate
P E 236C. Advanced

P E 237. Saber Fencing (1)
Lab-2 P/NP available
Repeat: max. 4 units
An entry-level course that surveys the sport of saber fencing, the general rules and regulations for governing a bout. CSU/UC
Formerly P E 529

P E 238A-238B-238C. Soccer (1-1-1)
Lab-2 P/NP available
Prereq: P E. 238B; P E. 238A; P E. 238C; P E. 238B
Repeat: combination max. 4 units
Beginning, intermediate, and advanced soccer. Emphasis on systems of play, strategy, rules, and training program. CSU/UC
Formerly P E 534A, B, C

P E 238A. Beginning
P E 238B. Intermediate
P E 238C. Advanced

P E 239. Softball (1)
Lab-2 P/NP available
Repeat: max. 4 units
Fundamentals of elementary softball; emphasis on development of team offense and defense. CSU/UC
Formerly P E 536
P E 240A-240B-240C. Tennis (1-1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning, intermediate, and advanced tennis. Emphasis on rules, etiquette, basic skills, strokes and footwork, scoring, and strategy. CSU/UC
Formerly P E 542A, B, C

P E 241. Track and Field (1)
Lab-2 P/NP available
Repeat: max. 4 units
Instruction for competition and participation in the coast conference of the California Association of Community Colleges (CACC). CSU/UC
Formerly P E 543

P E 242A-242B-242C. Volleyball (1-1-1)
Lab-2 P/NP available
Prereq.: P E 242B: P E 242A; P E 242C: P E 242B
Repeat: combination max. 4 units
Beginning, intermediate, and advanced volleyball. Emphasis on passing, serving, spiking, and blocking. CSU/UC
Formerly P E 545A, B, C

P E 242A. Beginning
P E 242B. Intermediate
P E 242C. Advanced

P E 243. Racquetball (1)
Lab-2 P/NP available
Repeat: max. 4 units
Fundamentals and principals of racquetball which include the essential skills of the game, the racquetball games (singles, double, "cutthroat"), rules, strategies, training, conditioning and injury prevention. CSU/UC
Formerly P E 543

P E 245. Lifeguard Training (1)
Lab-2 P/NP available
Prereq.: P E 540C or demonstration of P E 251C exit skills
Repeat: max. 4 units
Training in life guarding (no beach) situations; recognizing and preventing life threatening situations. American Red Cross Life Guarding Certificate granted upon successful completion. CSU/UC
Formerly P E 552

P E 250. Water Aerobics (1)
Lab-2 P/NP available
Repeat: max. 4 units
A physical activity performed in the water with emphasis on the achievement and improvement of cardiovascular endurance, encompassing the special advantages of movement in water. CSU/UC
Formerly P E 559

P E 251A-251B-251C. Swimming (1-1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning, intermediate, and advanced skills of swimming. Emphasis on the progression from the basics of water maneuvering to more advanced swimming techniques. CSU/UC
Formerly P E 540A, B, C

P E 251A. Beginning
P E 251B. Intermediate
P E 251C. Advanced

P E 252. Karate (1)
Lab-2 P/NP available
Repeat: max. 4 units
Instruction and training in modern sport karate involving recreational and/or competitive applications of the various empty hand systems. Emphasis on the development of self-control, positive human interaction and the redirection and avoidance of aggression. CSU/UC
Formerly P E 549

P E 271A-271B-271C. Judo (1-1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning, intermediate, and advanced judo. Instruction and practice in the basic skills of the sport of Judo. Terminology, etiquette along with throwing and grappling techniques, with integration of various Katas (forms) and Randori (free exercise). CSU/UC
Formerly P E 524A, B, C

P E 272A-272B-272C. Self Defense (1-1-1)
Lab-2 P/NP available
Repeat: combination max. 4 units
Beginning, intermediate, and advanced methods of self-defense. Instruction and practice in the basic techniques of anticipation, avoiding, and when necessary, protecting oneself from attack. Emphasis is on the avoidance of physical confrontation and the discouragement of an attack. CSU/UC
Formerly P E 530A, B, C

P E 273. Jujitsu (1)
Lab-2 P/NP available
Repeat: max. 4 units
Instruction and practice in the basic skills of Jujitsu. Course will cover the terminology, etiquette along with throwing, grappling, and submission techniques with an emphasis on self-defense techniques. CSU/UC
Formerly P E 572
Physical Education Athletics

Credit, Degree Applicable Courses:

Intercollegiate Athletics for Women (3)
Lab-10 P/NP available
Prereq.: athletic clearance (eligible by rules of the CACC and medical clearance verified by a physician)
Repeat: max. 12 units
Course numbers, activities and semesters as indicated below
Instruction for competition and participation in the Coast Conference of the California Association of Community Colleges (CACC). CSU/UC

PE A 60. Soccer fa
Formerly P E 450
PE A 61. Badminton sp
Formerly P E 451
PE A 62. Swimming
Formerly P E 452
PE A 63. Tennis sp
Formerly P E 453
PE A 64. Judo Competition
Formerly P E 460
PE A 65. Basketball fa, sp
Formerly P E 455
PE A 66. Track and Field sp
Formerly P E 456
PE A 67. Softball sp
Formerly P E 457
PE A 68. Volleyball fa
Formerly P E 458
PE A 69. Cross-country fa
Formerly P E 459

Intercollegiate Athletics for Men (3)
Lab-10 P/NP available
Prereq.: athletic clearance (eligible by rules of the CACC and medical clearance verified by a physician)
Repeat: max. 12 units
Course numbers, activities and semester as indicated below
Instruction for competition and participation in the Coast Conference of the California Association of Community Colleges (CACC). CSU/UC

PE A 80. Baseball sp
Formerly P E 400
PE A 81. Basketball fa, sp
Formerly P E 401
PE A 82. Cross-country fa
Formerly P E 402
PE A 83. Football fa
Formerly P E 403
PE A 85. Soccer fa
Formerly P E 405
PE A 87. Tennis sp
Formerly P E 407
PE A 88. Track and Field sp
Formerly P E 408

PE A 99. Intercollegiate Sport Development (3)
Lab-10 P/NP available
Repeat: max. 9 units
Students will be instructed in sport specific strength and conditioning protocols related to improving muscular strength, power, agility,
speed. Principles of sport specific technical and tactical methodology will be presented. Injury prevention, restoration and recovery will also be addressed. CSU/UC

Formerly P E 584

Physics
Office: Science 185
Phone Number: (415) 239-3467
Web Site: www.ccsf.edu/physics

Announcement of Curricula

Physics Major (AS)*

*This program is pending state approval.
Please refer to the online version of the Catalog.

Announcement of Courses

Credit, Degree Applicable courses:
PHYC 2A-2B. Introductory Physics (3–3)
Lec-3, conf-1
Required of premedical, biology, and some architecture students
Prereq. For PHYC 2A: HS physics or PHYC 40, and HS trigonometry or MATH 95
Prereq. For PHYC 2B: PHYC 2A
Coreq. For PHYC 2A: PHYC 2AL
Coreq. For PHYC 2B: PHYC 2BL
Lectures illustrating principles of physics.

PHYC 2A. Mechanics, fluids, heat, and sound. CSU/UC
PHYC 2B. Electricity, magnetism, light, and selected topics in modern physics. CSU/UC

PHYC 2AC. Introductory Physics--Calculus Supplement (0.5)
Lec-1, conf-0.5 (9 wks.)
Required of some premedical, biology, and architecture students.
Prereq.: MATH 110A or 100A; Completion/concurrent enrollment in PHYC 2A.
The application of calculus to topics in mechanics, fluids, heat and sound. CSU/UC

PHYC 2BC. Introductory Physics--Calculus Supplement (0.5)
Lec-1, conf-0.5 (9 wks.)
Required of some premedical, biology, and architecture students.
Prereq.: PHYC 2A and PHYC 2AC; and MATH 110A or MATH 100A
PHYC 2BC expands on topics covered in PHYC 2B with applications of calculus to problems in physics. PHYC 2BC satisfies the requirement of some professional and graduate schools for calculus in Physics 2B.
CSU/UC

PHYC 2AL-2BL. Introductory Physics Laboratory (1-1)
Lab-3
Required of premedical, biology, and some architecture students
Prereq.: For PHYC 2AL: Completion/concurrent enrollment in PHYC 2A
Prereq.: For PHYC 2BL: Completion/concurrent enrollment in PHYC 2B
Laboratory experiments.

PHYC 2AL. Mechanics, fluids, heat, and sound. CSU/UC
PHYC 2BL. Electricity, magnetism, and light. CSU/UC

PHYC 4A. Physics for Scientists and Engineers (3)
Lec-3, conf-1
Prereq.: MATH 110A
Coreq.: PHYC 4AL
Advise: PHYC 41 and concurrent enrollment in MATH 110B
First course in a calculus-based four semester sequence. Core topics include kinematics, dynamics, energy, momentum, rotation, gravitation, oscillations, and fluids. CSU/UC (C-ID PHYS 205=PHYC4A + PHYC 4AL)

PHYC 4B. Physics for Scientists and Engineers (3)
Lec-3, conf-1
Prereq.: PHYC 4A, PHYC 4AL, and MATH 110B
Coreq.: PHYC 4BL
Advise: Concurrent enrollment in MATH 110C
Second course in a calculus-based four semester sequence. Core topics include electric and magnetic fields, electric potential, capacitance, resistance, inductance, DC and AC circuits and Maxwell’s Equations. CSU/UC (C-ID PHYS 210=PHYC4B + PHYC 4BL)

PHYC 4C. Physics for Scientists and Engineers (3)
Lec-3, conf-1
Prereq.: PHYC 4A, PHYC 4AL, and MATH 110B
Coreq.: PHYC 4CL
Advise: Concurrent enrollment in MATH 110C
Third course in a calculus-based four semester sequence. Core topics include mechanical, sound and light waves; geometrical and physical optics; and thermodynamics. CSU/UC

PHYC 4D. Physics for Scientists and Engineers (3)
Lec-3, conf-1
Prereq.: PHYC 4A, PHYC 4AL, and MATH 110B
Coreq.: PHYC 4DL
Advise: MATH 110C
Fourth course in a calculus-based four semester sequence. Core topics include special relativity, quantum mechanics, atomic physics, and solid state physics. CSU/UC

PHYC 4AL-4BL-4CL-4DL. Physics Laboratory for Scientists and Engineers (1-1-1-1)
Lab-3
Required of physics, chemistry, and engineering majors planning to transfer to the University of California, Berkeley, or into other engineering or physical science transfer programs.
Prereq.: PHYC 4AL; Completion/concurrent enrollment in PHYC 4A; PHYC 4BL; PHYC 4D; PHYC 4AL; PHYC 4BL
Coreq.: PHYC 4BL; PHYC 4D; PHYC 4CL; PHYC 4C; PHYC 4DL; PHYC 4D
Laboratory experiments.

PHYC 4AL. Mechanics, measurements, fluids. CSU/UC (C-ID PHYS 205=PHYC4A + PHYC 4AL)
PHYC 4BL. Electricity and magnetism; emphasis on oscilloscope measurement techniques. CSU/UC
PHYC 4CL. Experiments in sound, Fourier analysis, electrical oscillations and waves, geometrical and physical optics. CSU/UC
PHYC 4DL. Laboratory experiments in modern physics. CSU/UC
Announcement of Curricula

**Pilipino Certificate**

The Certificate of Accomplishment in Pilipino provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 16 units in Pilipino. Each course must be completed with a final grade of C or higher. At least 10 units must be selected from the core list. The remaining 6 units may be selected from the elective units.

**Courses Required for the Certificate of Accomplishment in Pilipino**

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIL 1</td>
<td>Elementary Pilipino</td>
<td>5</td>
</tr>
<tr>
<td>PIL 2</td>
<td>Continuation of Elementary Pilipino</td>
<td>5</td>
</tr>
<tr>
<td>PIL 10A-10B-10C</td>
<td>Conversational Pilipino</td>
<td>3-3-3</td>
</tr>
<tr>
<td>PIL 39A-39B</td>
<td>Pilipino Literature in Translation</td>
<td>3-3</td>
</tr>
</tbody>
</table>

**Total Units:** 16

**Announcement of Courses**

**Credit, Degree Applicable Courses:**

**Pilipino**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIL 1</td>
<td>Elementary Pilipino</td>
<td>5</td>
</tr>
<tr>
<td>PIL 2</td>
<td>Continuation of Elementary Pilipino</td>
<td>5</td>
</tr>
<tr>
<td>PIL 10A-10B-10C</td>
<td>Conversational Pilipino</td>
<td>3-3-3</td>
</tr>
<tr>
<td>PIL 39A-39B</td>
<td>Pilipino Literature in Translation</td>
<td>3-3</td>
</tr>
</tbody>
</table>

**Physical Science**

**Announcement of Courses**

**Credit, Degree Applicable Course:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIL 1</td>
<td>Elementary Pilipino</td>
<td>5</td>
</tr>
<tr>
<td>PIL 2</td>
<td>Continuation of Elementary Pilipino</td>
<td>5</td>
</tr>
<tr>
<td>PIL 10A-10B-10C</td>
<td>Conversational Pilipino</td>
<td>3-3-3</td>
</tr>
<tr>
<td>PIL 39A-39B</td>
<td>Pilipino Literature in Translation</td>
<td>3-3</td>
</tr>
</tbody>
</table>
POLS 1. American Government (3)
Lec-3
An introduction to the institutions, operations, policies, and problems of American government today. Examination of such issues as U.S. Constitutional development; the impact of the President, the Congress, the bureaucracy, and the courts on daily life; civil rights and liberties; the press and the mass media; political parties, lobbies, and citizen action groups; voting and elections; the domestic and foreign policies of the federal government; the problems of state and local government; public administration and the theories, values, and behavior underlying the American political system. CSU/UC

POLS 2. Comparative Government (3)
Lec-3
A comparative study of the constitutional principles, governmental institutions, and political problems of selected governments abroad. CSU/UC

POLS 3. Political Theory (3)
Lec-3
Various theoretical approaches to politics and basic political problems and proposed solutions to them. An introduction to ways of thinking about politics and to the language and concepts of political theory. CSU/UC

POLS 4. The Politics of Globalization (3)
Lec-3
Advisement: ENGL 92 OR ESL 150 OR PLACEMENT IN ENGL 93 OR ESL 160 This course analyzes competing political theories and perspectives on the origins of globalization and how they relate to actual policies and practices across different regions, nations and cultures. To this end, students will learn about the possibilities and limitations that globalization offers to, and imposes on, daily life. CSU/UC

POLS 5. International Relations (3)
Lec-3
An introductory survey of world politics involving a historical and theoretical analysis of the relations among states and international organizations. Contemporary problem-areas and issues in an international arena of conflict and order, such as: American foreign policy; diplomacy and international bargaining; global problems of war and nuclear armament; international finance and the world economy; economic development and the world's resources; terrorism and human rights; and, on a voluntary basis, student participation in the Model United Nations. CSU/UC

POLS 6. Problems of Political Association (3)
Lec-3
An introduction to modern Western Civilization, from a political perspective, providing an overview of politics from the origins of the nation state to super-power confrontation, with a focus on the triangular relationship of Europe, the U.S., and the U.S.S.R. The nature of government, law, ideology, revolution, and political and economic integration are discussed. CSU/UC

POLS 7. American Politics and the African American Community (3)
Lec-3
American political institutions and their relationship to African Americans. The unique manner in which Black people have had to function both within and outside of the political system. The future of African American politics. CSU/UC

POLS 8. Political Problems of Latin Americans (3)
Lec-3
The relationship between Latin American citizens and American political institutions. Emphasis on the political problems of Latin Americans, proposed solutions to these problems, and practical political techniques for achieving such solutions. CSU/UC

POLS 9. Campaigns and Elections (3)
Lec-3
Offered spring and fall semesters of general election years Survey of the theory and practice of American political campaigns and elections. Emphasis on candidates, their issue positions, strategies and experience; ballot propositions, pros and cons, role and effect of the media, money, polls, and the changing impact of political parties and interest groups. CSU/UC

POLS 10. United States Foreign Policy (3)
Lec-3
An introductory course emphasizing the study of current problems and issues in United States foreign policy. Major units of study include the making and carrying out of foreign policy, historical changes in American foreign relations, recent events influencing America's role as a world power, and future challenges to the United States in international affairs. CSU/UC

POLS 11. Political Problems of Latin Americans (3)
Lec-3
This course surveys the contemporary history and role of a race and ethnicity in the American political system. Theories of race, migration, and ethnic political patterns are discussed in an integrative, comparative, and multidisciplinary approach. This course bridges Latin American and Latino/a politics by analyzing the experiences and struggles of social movements in Latin America and the United States. Among other aspects, their relationship to rebellions and revolutions in Latin America and the emergence of U.S. based Latino/a cross-border social movements will be analyzed. CSU/UC

POLS 12. Ethnic Politics in the United States (3)
Lec-3
This course surveys the contemporary history and role of a race and ethnicity in the American political system. Theories of race, migration, and ethnic political patterns are discussed in an integrative, comparative, and multidisciplinary approach. This course bridges Latin American and Latino/a politics by analyzing the experiences and struggles of social movements in Latin America and the United States. Among other aspects, their relationship to rebellions and revolutions in Latin America and the emergence of U.S. based Latino/a cross-border social movements will be analyzed. CSU/UC

POLS 13. Latin American and Latino/a Cross-Border Social Movements (3)
Lec-3
Offered spring and fall semesters of general election years This course bridges Latin American and Latino/a politics by analyzing the experiences and struggles of social movements in Latin America and the United States. Among other aspects, their relationship to rebellions and revolutions in Latin America and the emergence of U.S. based Latino/a cross-border social movements will be analyzed. CSU/UC

POLS 14. Government and Politics of Latin America (3)
Lec-3
The constitutional systems, political processes, and social problems of Latin-American nations. CSU/UC.
POLS 20. The Politics and Policies of Cities (3)
Lec-3  P/NP available
An analysis of the problems, politics, and policies of American city governments, with special emphasis on the San Francisco Bay Area. CSU

POLS 22. Environmental Politics and Policy (3)
Lec-3, field trips  P/NP available
This course examines the politics of environmental issues, including but not limited to, pollution, water quality, air quality, global climate, natural resources, endangered species, environmental justice, and development. The course focuses on the political, economic and social origins of environmental change and degradation and the policy and political activities of environmental movements, government agencies, interest groups, and political parties. The course examines the environmental politics of the United States, other nations comparatively and the global community as a whole, and also examines the theoretical underpinnings of ecological destruction and protection (ecopolitical thought). CSU/UC

POLS 25. Political Action (3)
Lec-3, field trips  P/NP available
A practical guide to citizen political participation. Emphasis on institutional possibilities of change as well as the development of political strategies. Practical political experience encouraged. CSU

POLS 30. Voter Education & Mobilization (3)
Lec-3  P/NP available
An introduction to non-partisan voter education and mobilization. Students research electoral issues and work on strategies to educate and mobilize fellow CCSF students to vote and participate in the political process. Practical hands-on civic engagement activities and critical reflections on voting and democracy are emphasized. CSU

POLS 35. Governments and Politics of East Asia (3)
Lec-3  P/NP available
A survey of political developments and changes in East Asia, with emphasis on the governments and politics of China and Japan. The role of other world powers in this region, including the Soviet Union and the United States. CSU/UC

POLS 41. Independent Studies in Political Science (1)
Lec-1  Repeat: if no topic repeat, max. 2 units
An individualized reading or research program. CSU (UC upon review)

POLS 42A-42B-42C-42D. Discussions in Political Science (1-1-1-1)
Lec-1  P/NP available
Lectures on varied subjects given by political scientists and practicing politicians (national, state and local). Seminar-type discussions and occasional field trips. CSU (UC upon review)

POLS 43. The Constitution and Individual Rights (3)
Lec-3, field trips  P/NP available
A citizen's civil and criminal rights under the Constitution. Analysis of leading cases and legal principles which protect individual freedom. CSU/UC

POLS 45. Government and Politics of Middle East (3)
Lec-3  P/NP available
A survey of political developments and changes in the Middle East, with emphasis on the Arab states and Israel. CSU/UC

POLS 46. American Political Systems (3)
Lec-3, field trips  P/NP available
Not designed to satisfy the American history and institutions requirement for the University of California nor for the California State Universities and Colleges.

No credit for POLS 46 taken after completion of POLS 1
A survey of the relevant aspects of events and policies that have brought about change at all levels of government on the American scene—local, state, and national. Emphasis on basic political problems and on an analysis and evaluation of the solutions offered historically, with consideration of relationships between California and the United States, as well as consideration of local government in the San Francisco Bay Area. CSU/UC

POLS 47. Government and Politics of Southeast Asia (3)
Lec-3  P/NP available
A survey of political developments and changes in Southeast Asian states (the Philippines, Indonesia, Malaysia, Thailand, and Singapore) and such other states as Viet Nam, Laos, Cambodia, and Burma. Internal politics and international relations. CSU/UC

POLS 48. Government and Politics of Africa (3)
Lec-3  P/NP available
A survey of political development and change in contemporary Africa, with emphasis on Africa south of the Sahara. Major factors shaping African politics and institutions; ideology, nationalism, colonialism, political groups, and nation-building. CSU/UC

POLS 51-52-53. Selected Topics in Political Science (1-2-3)
Lec-1-2,3  P/NP available
Selected topics in political science will be explored through lectures, discussions, film, video, and/or television leading to a critical analysis and understanding of the topic under discussion. CSU

POLS 53A. “Tales of the City”: San Francisco Government and Politics

---

**Announcement of Curricula**

**Psychology Major (AA-T)**

Associate in Arts in Psychology for Transfer. This program is designed to prepare students who wish to transfer to pursue studies in psychology. Students are REQUIRED to meet with the Behavioral Sciences Chair to discuss educational goals, course options, and transfer issues.

**Learning Outcomes**

Upon completion of this program, students will:

- **Be better prepared** for a B.A. or B.S. program in Psychology
- **Apply the basic tenets** of psychology to the study of more in depth topics in upper division course

**Courses Required for the Major in Psychology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1B Biological Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
PSYC 2 Research Methods ..................................... 3
PSYC 3 Statistics for Behavioral Sciences ..................... 4
Choose ONE class from the following options:
BIO 9 Human Biology ........................................ 4
BIO 11 Introduction to the Science of Living Organisms .... 4
ENGL 1B Reading, Writing, and
Critical Thinking about Literature ............................ 3
ENGL 1C Advanced Composition ................................ 3
Choose ONE class from the following options:
PSYC 4 Forensic Psychology ................................... 3
PSYC 9 Psychology of Stress ................................... 3
PSYC 10 Abnormal Psychology ................................ 3
PSYC 11 Theories of Personality ................................. 3
PSYC 21 Lifespan Development ................................ 3
PSYC 22 Psychology of Race and Ethnic Relations ......... 3
PSYC 23 Psychology of Race and Ethnic Relations ......... 3
PSYC 25 Psychology of Sex Differences ....................... 3
PSYC 26 Applied Psychology .................................... 3
PSYC 40 Child and
Adolescent Psychology ........................................... 3
SOC 1 Introduction to Sociology ................................ 3
SOC 30 Social Psychology ....................................... 3
ANTH 1 Biological Anthropology ............................... 3
ANTH 3 Introduction to Social and
Cultural Anthropology .......................................... 3
POLS 1 American Government ................................... 3
Total Units ......................................................... 19-20

Announcement of Courses
Credit, Degree Applicable Courses:
PSYC 1. General Psychology (3)
Lec-3 P/NP available
Advis: ENGL 92 or ESL 160 or Placement in ENGL 93 or 94; or ESL 170
A scientific approach to the study of behavior and mental processes
designed for both majors and non-majors. Topics include: research
methods, physiology of behavior, sensory systems, learning, memory,
life-span development, motivation, emotion, personality theories,
social psychology, abnormal psychology and psychotherapy. CSU/UC
(C-ID PSY 110)

PSYC 1B. Biological Psychology (3)
Lec-3 P/NP available
Prereq: PSYC 1
Exploration of the interaction between behavior and biological factors.
Includes heritability of behavior, the nervous system, the endocrine
system, the senses, and the biological factors underlying behaviors
such as learning and memory, food and sexual motivation, speech,
emotions, altered states of consciousness, psychosis, and depression.
CSU/UC

PSYC 2. Research Methods (3)
Lec-3 P/NP available
Prereq: PSYC 1
Primarily for psychology majors, related majors, and students
interested in the scientific method.
Introduction to experimental method and design in behavioral sci-
ence. Designed to develop an understanding of the concepts and logic
of experimentation and to develop clear and concise thinking for the
evaluation and criticism of information regarding human behavior.
CSU/UC

PSYC 4. Forensic Psychology (3)
Lec-3 P/NP available
Advis: PSYC 1; and ENGL 92 or ESL 160 (or Placement in ENGL 93
or ESL 170)
Examination of the interface between psychology and law. Many legal
issues involve questions that are psychological in nature. Controversies
which lie at the intersection of psychology and law are examined, e.g.
jury selection, false confessions, polygraph tests, eyewitness testimony,
repressed memories, insanity defense, and forensic psychological
evaluations. CSU

PSYC 5. Statistics for Behavioral Sciences (4)
Lec-5 P/NP available
Prereq: MATH 60 or 92 or Demonstration of their exit skills
Advis: ENGL 92 or ESL 160 or Placement in ENGL 93 or 94; or ESL 170
Not open to students who have completed a course in statistics
Primarily for prospective majors and related majors.
An introduction to data analysis including measurement and research
design. Intended for general education and prospective behavioral
science majors. Students will examine, interpret, and apply both
descriptive (e.g., organization of data, central tendency and variability,
linear regression) and inferential statistics (e.g., probability and sam-
pling theory, hypothesis testing, and confidence intervals). CSU/UC

PSYC 9. Psychology of Stress (3)
Lec-3 P/NP available
Critical exploration of psychological research as it applies to under-
standing the causes, physiology, and consequences of stress. Emphasis
is on practical applications for better managing stress through review
of cognitive, communication, problem solving, healthy lifestyle and
relaxation based coping strategies. CSU

PSYC 11. Theories of Personality (3)
Lec-3 P/NP available
Advis: PSYC 1
An introduction to the theoretical constructs describing personality,
including the ways in which personality is explained, the dynamics
that govern human behavior, and the ways in which personality devel-
ops. Current research and approaches to understanding personality
and consideration of the contributions and limitations of each theory
will also be a focus. CSU/UC

PSYC 14. Psychology of Shyness and Self-Esteem (1)
Lec-1 P/NP available
An examination of psychological theories and research on the develop-
ment of shyness and self-esteem. Techniques for reducing shyness and
raising self-esteem. CSU

PSYC 15. Assertive Behavior (1)
Lec-1 P/NP available
Emphasis on cognitive-behavioral theories and communication skills
and their application to assertive behavior. Assertiveness techniques in
a variety of situations, including communication with family, friends, and at the workplace are a major focus. CSU

PSYC 17. Psychology of Eating, Food, and Weight (1)
Lec-1 P/NP available
Not open to students who have completed PSYC 41A.
An examination of psychological theories and research on eating, weight and food. Includes examination of eating disorders, dieting, the diet industry, and weight management. CSU

PSYC 21. Lifespan Development (3)
Lec-3 P/NP available
Advise: PSYC 1
Examination of psychological theories and research to describe, understand, and explain human development from conception to death. Exploration of the lifelong interaction between nature and nurture. Emphasis on the specific issues we face as we progress through life, such as acquisition of emotional, physical, cognitive and moral skills and the changing balance between dependence and interdependence as we move from infancy to adolescence, adulthood and later life. CSU/UC

PSYC 22. Psychology of Race and Ethnic Relations (3)
Lec-3 P/NP available
Not open to students who are enrolled in or who have completed PSYC 23.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. CSU

PSYC 23. Psychology of Race and Ethnic Relations (3)
Lec-3 P/NP available
Prereq.: PSYC 1
Not open to students who are enrolled in or who have completed PSYC 22.
Critical evaluation of the concept of race as a biological, social and cultural construct and examination of psychological aspects of race and ethnic relations. Psychohistorical analysis of the treatment of African Americans, Asian Americans, Mexican/Latino Americans, and Native Americans in the USA. Emphasis on the strengths and unique contributions of these and other groups to the USA. Relevant psychological theories and research are applied to a required research paper on psychological and social problems related to discrimination. CSU/UC

PSYC 25. Psychology of Sex Differences (3)
Lec-3 P/NP available
Analysis of sex differences from physiological, psychological, and social perspectives; exploration of areas such as abilities, achievement, aggression, attitudes, including the study of concepts of femininity, masculinity, and androgyny. Designed to increase understandings of personal and professional relationships. CSU/UC

PSYC 26. Applied Psychology (3)
Lec-3 P/NP available
Critical exploration of psychological theory and research as it applies to everyday goals and concerns. Emphasis on self awareness, personal growth, and social relationships through examination of such topics as personality development, identity and self-esteem, motivation and personal control, emotions, communication skills, relationship success, career satisfaction, stress management, psychological disorders, and healthy living. CSU

PSYC 40. Child and Adolescent Psychology (3)
Lec-3 P/NP available
Advise: PSYC 1
Introduction to the psychology of child development from conception through adolescence. Examination of research, theories, and practical information for parents, caretakers, teachers, mental health workers, physicians, and concerned adults. Emphasis on how a child's development is enhanced, restricted, or distorted; emotional, social and cognitive development at different age/stage levels. Role of heredity and environment on maturation and learning in various areas of behavior. CSU/UC

Public Safety
See listings at Administration of Justice and Fire Science Department.

Radiologic Sciences
Office: Cloud 239
Phone Number: (415) 239-3431
Web Site: www.ccsf.edu/dmi

Mission Statement
Mission Statement of the Radiologic Sciences Department. The Radiologic Sciences Department at City College of San Francisco is dedicated to the advancement of the allied health care industry by providing educational opportunities that foster ethical and compassionate behavior, professional development, and a respect for human diversity. The accomplishment of this mission is embedded in our values through the department's acronym: CCSF RADSCI

Our Values:
Compassionate patient care
Continued pursuit of learning
Sensitivity to the learning needs of our students
Fair and equitable treatment for all
Respect for all
Accountability and ethical behavior
Diversity consciousness
Service to the community and the advancement of the Radiologic Technology Profession
Commitment to excellence in the Radiologic Technology Profession
Integrity of the Education

Our Vision
To provide superior didactic and clinical educational opportunities that ensure CCSF RadSci graduates are among the highest qualified radiologic technologists in the industry.

How we Achieve our Vision
Currency in Didactic Instruction. When our teachers speak from experience, it is current. Most of them continue to practice in the field, and are lecturing on their work experiences that occurred in the very recent past. Many faculty members serve on various statewide and national committees that determine the future of Radiologic Technology practice, and hold multiple degrees and credentials.

Superior Laboratory Facilities. The CCSF RadSci Department strives to maintain equipment that reflects what is currently used in the
clinical setting. This ensures that students develop strong skills that accompany them into the medical environment.

**Strong Clinical Affiliates.** Both programs in the CCSF RadSci Department are affiliated with two of the mostly highly rated hospitals in the country: UCSF Medical Center, and California Pacific Medical Center which provides innovative radiation oncology equipment and treatment procedures. The diagnostic Medical Imaging Program is affiliated with one of the leading Level I trauma centers in the nation: San Francisco General Hospital. Our affiliates are set in a dynamic urban environment, which provides experience with a diverse patient and professional population. This combination of excellence in didactic and clinical instruction opportunities ensures that CCSF RadSci Department will fulfill its vision, now and in the future.

## Diagnostic Medical Imaging

### Announcement of Curricula

#### Degree Curricula

The curriculum in Diagnostic Medical Imaging is approved by the Joint Review Committee on Education in Radiologic Technology, located at 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182 Tel: (312) 704-5300, and by the California Department of Health. The program is affiliated with multiple San Francisco hospital radiology departments for the purpose of clinical education.

For more information, please visit [www.ccsf.edu/dmi](http://www.ccsf.edu/dmi)

**Consideration for Admission to the Curriculum.** To be considered for admission to the curriculum, applicants must—

1. Have completed the following prerequisite courses within 7 years prior to application, with a grade of “C” or higher and overall GPA of 2.5 or higher:
   a.) MATH 40 (Elementary Algebra) or placement in MATH 60
   b.) CHEM 32 or CHEM 40
   c.) PHYC 10 and 10L
   d.) ANAT 25
   e.) ENGL 93 or 94 (or placement in ENGL 96); or ESL 160 (or placement in ESL 170)
   f.) PHYS 12
2. Complete 40 hours of volunteer service in a hospital Radiology Department. Consult the Diagnostic Medical Imaging (DMI) application (available at [www.ccsf.edu/dmi](http://www.ccsf.edu/dmi)) for more details about this requirement.
3. Completion of MATH 60 and ENGL 1A are strongly recommended prior to entering the program.
4. Have at least a 2.0 cumulative grade point average in all non-prerequisite college courses.
5. Be in good physical and mental health.
6. File with the Office of Admissions and Records a completed application for admission to City College (for dates, see in this catalog the "Calendar of Instruction").
7. Complete the City College of San Francisco placement tests on the date or dates stated in the notice mailed by the College. All applicants must take the City College placement tests (mathematics, English).
8. Submit an application to the Radiologic Sciences Office. Contact Radiologic Sciences Department for filing deadline dates. Applications are available at [www.ccsf.edu/dmi](http://www.ccsf.edu/dmi).

**Health Clearance Requirements.** In addition to academic requirements and orientation, admission to the Diagnostic Medical Imaging Program is subject to evidence of immunizations per the San Francisco Department of Public Health. In addition, upon program admission, the student must satisfactorily complete a physical examination given by an appropriately licensed health care provider.

**Background Check Requirement.** A background check will be required by the clinical affiliates. The cost for this will be incurred by the student. Students must complete this background check upon admission to the program.

**Drug Screening.** Drug screening is required by the clinical affiliate. The student is responsible for the cost. Students must complete the drug screening procedure upon admission to the program.

**Program Orientation.** Upon admission, students are required to attend a number of scheduled program orientations.

**Instruction in the Major.** The course of study includes instruction in radiologic theory, imaging techniques and procedures, pathology, patient care and management, radiation protection, radiobiology, anatomy, chemistry, physics and physiology. The curriculum is 30 months in length, including two academic years, with a summer session along with a clinical internship of 32 weeks. Clinical education in diagnostic medical imaging is held in the radiology departments of the medical centers affiliated with the program. Members of the professional and technical staffs of these departments serve as instructors in the affiliated medical centers.

Upon satisfactory completion of the Program and college graduation requirements, the student is awarded the Associate in Science Degree with a major in Diagnostic Medical Imaging. Upon satisfactory completion of the clinical internship in an affiliate hospital, the student is eligible for the ARRT national examination for certification.

**Scholarship Requirements and Basis for Disqualification.** A minimum grade percentage of 75% is required in all DMI courses. A final grade lower than C (75%) in any of the required Diagnostic Medical Imaging courses, or a grade point average below 2.0 is cause for dismissal from the Diagnostic Medical Imaging Program. Students may also be disqualified prior to the end of the semester should they receive a grade lower than C in their clinical performance evaluation. Students may be suspended or dismissed for excessive absences either on campus or at the clinical affiliate, according to the attendance policy, or for other reasons consistent with College policy, as set forth in the Catalogue under General Information.

**Readmission of Students Disqualified Because of Unsatisfactory Scholarship.** A Student that has been disqualified from continuing in the curriculum due to receiving a final grade lower than C (75%) and wishes who to be readmitted must submit a new application to the Radiologic Science Department. Any student that is readmitted must restart the program from the very beginning, regardless of the semester in which the course was failed.

**Associate in Science Degree.** The course of study is designed so that students may satisfy the requirements for graduation from the College. In order to receive A.S. degree with a Major in Diagnostic Medical Imaging, students must satisfy the current graduation requirements in Areas A-H, including the math requirement, along with the required DMI curriculum courses, which includes the 32-week clinical internship.
State and National Certification. State certification in Diagnostic Radiologic Technology is required for employment in California. Graduates are eligible for and must satisfactorily complete the certification examination given by the American Registry of Radiologic Technologists (ARRT), a national certification board recognized by the Joint Review Committee for Education in Radiologic Technology. All employers require national certification. Upon notification of successful ARRT results, the graduate must apply for certification from the state of California.

Purchase of Uniforms and Clinical Supplies. Students are required to purchase the uniforms required in the courses in radiologic technology. The cost of uniforms and other supplies is approximately $500.

Program Goals and Student Learning Outcomes
Upon graduation from the City College of San Francisco Diagnostic Medical Imaging Program, students will be able to perform the following goals and outcomes:

1. **Radiology safety and patient management:** Students/Graduates will be prepared to offer appropriate patient management and radiation protection skills in the medical environment in a manner that is safe and effective.
   - Demonstrate safe and effective radiation protection procedures.
   - Communicate effectively with patients, clinical staff, instructors, and fellow students.
   - Deliver efficient and safe general patient care skills.
   - Render appropriate care of the injured or critically ill patient.
   - Demonstrate age-appropriate patient care skills.

2. **Technical skills:** Students/Graduates will have acquired technical skills and knowledge enabling them to produce diagnostic quality radiographic examinations.
   - Demonstrate effective technical skills.
   - Produce diagnostic quality radiographs.
   - Demonstrate safe operation of the radiographic equipment.
   - Perform radiographic procedures efficiently.
   - Properly critique a radiograph for diagnostic quality.
   - Describe how to produce a diagnostic quality radiograph when one or more exposure parameters are changed.

3. **Professionalism:** Students/Graduates will exhibit professionalism in their practice of diagnostic medical imaging.
   - Employ a professional work ethic in the classroom and clinical setting.
   - Exhibit reliability in the classroom and clinical setting.
   - Demonstrate initiative in the performance of classroom and clinical duties.
   - Function effectively as a team player.

4. **Career achievement:** Graduates will have successful and productive careers as a Diagnostic Medical Imaging Technologist.
   - CCSF graduates, who wish to do so, find employment in the DMI discipline within 6 months of graduation.
   - Graduates indicate positively that the program prepared them for a career in Diagnostic Medical Imaging.
   - The program completion rate does not fall below 70%.
   - Graduates pass the ARRT examination on the first attempt.

Sequence of Courses. The following sequence of courses is for students starting in the fall. The sequence changes for students starting in the spring. Contact the Radiologic Sciences office for further information.

### Diagnostic Medical Imaging Major (AS)

#### Courses Required for the Major in Diagnostic Medical Imaging

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 49 Intro to Radiologic Technology</td>
<td>3</td>
</tr>
<tr>
<td>DMI 50A Intro to Med Radiography</td>
<td>3</td>
</tr>
<tr>
<td>RADL 52 Patient Care and Staff Relationships</td>
<td>2</td>
</tr>
<tr>
<td>SPCH 11, 12 or 1A Basic Public Speaking or Fundamentals of Oral Communication or Elements of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 14 Advanced First Aid and Basic Life Support for Healthcare Providers</td>
<td>2</td>
</tr>
<tr>
<td><strong>Additional graduation requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 50B Radiologic Phyc and Equip</td>
<td>2</td>
</tr>
<tr>
<td>DMI 51A Radiographic Anat and Position</td>
<td>4</td>
</tr>
<tr>
<td>DMI 51B Radiographic Exposure Factors</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 1 or 26 Gen Psyc or Applied Psyc</td>
<td>3</td>
</tr>
<tr>
<td><strong>Additional graduation requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Summer Session</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 62 (seven weeks) Clinical Educ in DMI</td>
<td>2</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 55 Skull Radiography and Resrch Project</td>
<td>2</td>
</tr>
<tr>
<td>DMI 56 Pathology</td>
<td>2</td>
</tr>
<tr>
<td>DMI 63 Inter Diagnostic Proc</td>
<td>2</td>
</tr>
<tr>
<td>DMI 64 Clin Educ in DMI</td>
<td>2</td>
</tr>
<tr>
<td><strong>Additional graduation requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 57 Multiplanar Imaging</td>
<td>3</td>
</tr>
<tr>
<td>DMI 54 Vascular and Interven Proc</td>
<td>2</td>
</tr>
<tr>
<td>DMI 65 Adv Imaging Proc</td>
<td>2</td>
</tr>
<tr>
<td>DMI 66 Clinical Educ in DMI</td>
<td>2</td>
</tr>
<tr>
<td>RADL 70 Radiation Protection</td>
<td>2</td>
</tr>
<tr>
<td><strong>Additional graduation requirements (All General Education graduation requirements should be completed by the end of this semester.)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Internship</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 68 Clinical Educ in DMI</td>
<td>6</td>
</tr>
<tr>
<td>DMI 69 Clinical Educ in DMI</td>
<td>4</td>
</tr>
<tr>
<td>DMI 100 Review of Radiologic Tech</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>56</td>
</tr>
</tbody>
</table>

**Recommended electives:** Courses in keyboarding, computer science, HLTH 10, 25, 27, 33, 53, 64, and 67*

* These health courses teach current health issues faced by the local patient population.
Announcement of Courses
Credit, Degree Applicable Courses:

DMI 49. Introduction to Radiologic Technology (3)
Lec-3, field trips
Open to all students who may be interested in a career in Radiologic Technology and required of students accepted into either the Diagnostic Medical Imaging or the Radiation Therapy Technology programs. History and discovery of uses of medical radiation; careers in radiology; educational preparation for those careers; function of health care units utilizing radiologic technology; associated imaging modalities of radiologic technology; medical ethics for radiologic technologists; sources of radiation; review of simple mathematics crucial for developing radiographic techniques; elementary principles of radiation protection; medical terminology; career advancement and mobility.
CSU

DMI 50A. Introduction to Medical Radiography (3)
Lec-2, lab-3, field trips
Prereq.: Admission to the Curriculum in Radiologic Technology; Completion/concurrent enrollment in DMI 49 Introduction to radiological physics, film exposure and film processing. CSU

DMI 50B. Radiologic Physics and Equipment (2)
Lec-2, lab-2
Prereq.: Completion/concurrent enrollment in DMI 50A
Physics as applied to radiography, fluoroscopy, and radiotherapy. X-ray circuits. The interaction of ionizing radiation with matter. Radiation protection. Equipment used in radiology. CSU

DMI 51A. Radiographic Anatomy and Positioning (4)
Lec-4, lab-3, field trips
Prereq.: ANAT 25, DMI 49, 50A, and RADL 52
INTENDED TO BE TAKEN CONCURRENTLY WITH DMI 50B AND 51B.
Premiminary steps in radiography. Anatomy and positioning of extremities, thorax, vertebral column, pelvic and shoulder girdles, thoracic viscera, abdomen, gastrointestinal, biliary, and genitourinary tracts. CSU

DMI 51B. Radiographic Exposure Factors (2)
Lec-2, lab-1
Coreq.: DMI 50B and 51A
Theoretical and practical application of exposure factors. Emphasis is placed on the students’ ability to analyze the quality of a recorded image and to improve the image. Film critique of experiments and of the department’s film file. CSU

DMI 54. Vascular and Interventional Procedures (2)
Lec-2
Prereq.: DMI 63; completion/concurrent enrollment in DMI 64 or 66
Coreq.: DMI 65 and 66
Emphasis on vascular radiography (including cerebral angiography, abdominal angiography, thoracic aortography, lymphangiography, femoral arteriography, peripheral angiography), related equipment, patient care, interventional radiography, and trends of techniques and equipment in vascular radiography. CSU

DMI 55. Skull Radiography and Research Project (2)
Lec-2, field trips
Coreq.: DMI 62, 64, and 63
Anatomy of the head and facial bones, topical landmarks, radiographic positioning and technical factors, radiographic equipment and usage, pathological conditions, patient care, discussion of CT and MRI imaging of the head. Research/writing project with presentation by each student on a radiographic topic. CSU

DMI 56. Pathology (2)
Lec-2
Coreq.: DMI 62, 64 or 66
Discussion and illustration of the normal variations and abnormal changes because of disease as manifested by X-rays. Description of the modifications of standard and special techniques necessary to obtain adequate diagnostic X-ray studies of the various diseases. CSU

DMI 57. Multiplanar Imaging in Radiologic Sciences (3)
Lec-3
Prereq.: ANAT 25
Coreq.: DMI 63
Anatomy from multiplanar perspectives as visualized on computed tomography (CT), PET, and MRI. Imaging protocols and treatment planning. Comparative analysis of CT, PET, and MRI.

DMI 62. Clinical Education in Diagnostic Medical Imaging (2)
Conf-16
Prereq.: SPCH 11 or 12 or 1A; and HLTH 14
Practic experience in the radiology department of a hospital. Students must perform all radiographic goals as stated in the course objectives. CSU

DMI 63. Intermediate Diagnostic Procedures (2)
Lec-2, lab-1
Coreq.: DMI 62, 64, or 66
Basic theories underlying many diagnostic imaging procedures. Relationship of clinical indications, special precautions, quality assurance, equipment, and positioning. Introduction to the use of computers in radiology. CSU

DMI 64. Clinical Education in Diagnostic Medical Imaging (2)
Conf-16
Prereq.: DMI 62
A continuation of the clinical experience. Students must perform all radiographic goals as stated in the course objectives. CSU

DMI 65. Advanced Imaging Procedures (2)
Lec-2
Prereq.: Completion/concurrent enrollment in DMI 64 or 66
Principles of computed tomography and magnetic resonance imaging, radiography of infants and children (immobilization techniques and alleviation of fear); radiography of the female reproductive system; dynamic imaging. CSU

DMI 66. Clinical Education in Diagnostic Medical Imaging (2)
Conf-16
Prereq.: DMI 64
A continuation of the clinical experience. At the completion of the course, the student must have completed a minimum of 840 clock hours of clinical experience and be able to perform all radiographic goals as stated in the course objectives. CSU

DMI 68. Clinical Education in Diagnostic Medical Imaging (6)
Conf-40
Prereq.: DMI 66
Clinical performance of internship objectives. Bi-weekly on-site rotating conferences by the faculty. CSU
DMI 69. Clinical Education in Diagnostic Medical Imaging (4)
Conf-40
Prereq.: DMI 66
Students commencing internships in the summer will take DMI 69 before 68.
Clinical performance of internship objectives. Bi-weekly on-site rotating conferences by the faculty. CSU

DMI 100. Review of Radiologic Technology (1)
Lec-3.5 (5 wks)
Coreq.: DMI 68 or 69
Designed to prepare students for the certification examination given by the American Registry of Radiologic Technologists and for the examination for certification given by the California Radiation Health Branch. Career planning resources. CSU

DMI 120. Ultrasound Physics and Instrumentation (2)
Lec-2, field trips
Introduction to the physical principles of ultrasound. Analysis of the routine parameters of a diagnostic ultrasound beam; utilization of ultrasound scanners for the production of ultrasound waves used to interact with tissue; biological safety and risks. CSU

DMI 122. Sectional Anatomy for Sonographers (2)
Lec-2, lab-1, field trips
Introduction to the related anatomy and physiology of the abdomen and pelvis as it appears in sagittal, coronal, and axial scans. Emphasis on normal anatomy as visualized on sonograms. CSU

DMI 123. OB/GYN Sonography (2)
Lec-2
Identification of sectional anatomy used in OB/GYN scanning, both normal and abnormal, as it appears in sagittal, coronal, and axial scans. Field trips as required. CSU

DMI 125. Ultrasound Clinical Education (6)
Lab-35
Prereq.: Have completed an allied health program with a direct patient-care component
Coreq.: Enrollment in Ultrasound lecture course.
Course is designed to give the student appropriate time in the clinical setting to become adept at scanning, while understanding the principles of quality assurance, patient care and the integration of clinical findings with patient history. CSU

Radiation Therapy Technology

Announcement of Curricula

Degree Curriculum
The Radiation Therapist (R.T.T.) is an essential member of the team responsible for the treatment of malignant diseases. The Option in Radiation Therapy Technology is approved by the Joint Review Committee on Education in Radiologic Technology, located at 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-2901, Tel: (312) 704-5300, and by the California Department of Health, and is offered in affiliation with the Radiation Therapy Department of the University of California Medical Center and several other Bay Area hospitals.

Consideration for Admission to the Curriculum. To be considered for admission to the curriculum, applicants must —

1. Have completed the following prerequisite courses within 7 years prior to application, with a grade of "C" or higher and overall GPA of 2.5 or higher:
   a.) MATH 40 (Elementary Algebra) or placement in MATH 60
   b.) CHEM 32 or CHEM 40
   c.) PHYC 10 and 10L
   d.) ANAT 25
   e.) ENGL 93 or 94 (or placement in ENGL 96); or ESL 160 (or placement in ESL 170)
   f.) PHYS 12
2. Have at least a 2.0 cumulative grade point average in non-pre-requisite college courses.
3. Be in good physical and mental health.
4. File with the Office of Admissions and Records a completed application for admission to City College (for dates, see in this catalog the “Calendar of Instruction”).
5. Complete the City College of San Francisco placement tests on the date or dates stated in the notice mailed by the College. All applicants must take the City College placement tests (mathematics, English).
6. Submit an application to the Radiologic Sciences Office.
   Contact to Radiologic Sciences Department for filing deadline dates. Applications are available at www.ccsf.edu/dmi
7. Completion of MATH 60 and ENGL 1A are strongly recommended prior to entering the program.
For application deadline, contact Radiologic Sciences Department. (Applications are available in the Radiologic Sciences Office, Cloud Hall, Room 239 and at www.ccsf.edu/dmi)

Health Clearance Requirements. In addition to academic requirements and orientation, admission to the Radiation Therapy Technology Program is subject to evidence of immunizations and titers per the San Francisco Department of Public Health. In addition, upon program admission, the student must satisfactorily complete a physical examination given by an appropriately licensed health care provider.

Background Check Requirement. A background check is required by the clinical affiliates. The cost for this will be incurred by the student. Students must complete this background check upon admission to the program.

Drug Screening: Drug screening is required by the clinical affiliates. The student is responsible for the cost. Student must complete the drug screening procedure upon admission to the program.

Program Orientation. Upon admission, students are required to attend a number of scheduled program orientations.

Instruction in the Major. The Radiation Therapy Technology (RTT) Program is 24 months in length. The course of study includes instruction in the following: radiation therapy techniques, radiobiology, oncology, treatment planning, radiation protection, sectional anatomy, physics, patient care, imaging and radiation therapy simulation.
Clinical education in Radiation Therapy consists of courses spanning 3 semesters, plus two summer sessions and is taught in radiotherapy departments affiliated with the program. Members of the professional and technical staff of these departments serve as instructors. Students have the opportunity to rotate to four different cancer centers. Since any clinical course may require attendance at a center away from San Francisco, students must have access to reliable personal transportation.
Scholarship Requirements and Basis for Disqualification. A minimum grade percentage of 75% is required in all RTT courses. A final grade lower than C (75%) in any of the required Radiation Therapy Technology courses, or a grade point average below 2.0 is cause for dismisal from the Radiation Therapy Technology Program. Students may also be disqualified prior to the end of the semester should they receive a grade lower than C in their clinical performance. Students may be suspended or dismissed for excessive absences either on campus or at the clinical affiliate, according to the attendance policy, or for other reasons consistent with College policy, as set forth in the Catalogue under General Information.

Readmission of Students Disqualified Because of Unsatisfactory Scholarship. A Student that has been disqualified from continuing in the curriculum due to receiving a final grade lower than C (75%) and wishes who to be readmitted must submit a new application to the Radiologic Science Department. Any student that is readmitted must restart the program from the very beginning, regardless of the semester in which the course was failed.

Associate in Science Degree. The course of study is designed so that students may satisfy the requirements for graduation from the College. In order to receive A.S. degree with a Major in Radiation Therapy Technology, students must satisfy the current graduation requirements in Areas A-H, including the math requirement, along with the required RTT curriculum courses.

State and National Certification. State certification in Diagnostic Radiologic Technology is required for employment in California. Graduates are eligible for and must satisfactorily complete the certification examination given by the American Registry of Radiologic Technologists (ARRT), a national certification board recognized by the Joint Review Committee for Education in Radiologic Technology. All employers require national certification. Upon notification of successful ARRT results, the graduate must apply for certification from the state of California.

Purchase of Uniforms and Clinical Supplies. Students are required to purchase the uniforms required in the courses in radiologic technology. The cost of uniforms and other supplies is approximately $500.

Program Goals
Upon graduation from the City College of San Francisco Radiation Therapy Technology Program, students will be able perform the following goals:

1. Radiation safety and patient management:
   Students/Graduates will be prepared to offer appropriate patient management and radiation protection skills in the medical environment in a manner that is safe and effective.

2. Technical skills:
   Students/Graduates will have acquired technical skills and knowledge enabling them to produce consistent, high quality treatments to their patients.

3. Professionalism:
   Students/Graduates will exhibit professionalism in their practice of radiation therapy.

4. Career achievement:
   Graduates will have successful and productive careers as Radiation Therapists.

Sequence of Courses. The following sequence of courses is for students starting in the fall. The sequence changes for students starting in the spring. Contact the Radiologic Sciences office for further information.

### Radiation Therapy Technology Major (AS)

<table>
<thead>
<tr>
<th>Courses Required for the Major in Radiation Therapy Technology.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 49 Intro to Radl</td>
<td>3</td>
</tr>
<tr>
<td>DMI 50A Intro to Med Radiography</td>
<td>3</td>
</tr>
<tr>
<td>RADL 52 Patient Care and Staff Relationships</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 14 Advanced First Aid and</td>
<td></td>
</tr>
<tr>
<td>Basic Life Support for Healthcare Providers</td>
<td>2</td>
</tr>
<tr>
<td>DMI 57 Multi Planar Imaging</td>
<td>3</td>
</tr>
<tr>
<td><strong>Additional graduation requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DMI 50B Radiologic Physics and Equipment</td>
<td>2</td>
</tr>
<tr>
<td>RTT 61 Clinical Radiation Therapy I</td>
<td>3</td>
</tr>
<tr>
<td>RTT 71 Orientation to Radiation Therapy</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Additional graduation requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Summer Session</strong></td>
<td></td>
</tr>
<tr>
<td>RTT 73 Patient Care in Radiation Therapy</td>
<td>1.5</td>
</tr>
<tr>
<td>RTT 72 Principles &amp; Practice of Radiation Therapy I</td>
<td>1.5</td>
</tr>
<tr>
<td>RTT 62 Clinical Radiation Therapy II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Third Semester (Fall)</strong></td>
<td></td>
</tr>
<tr>
<td>RTT 81 Radiation Therapy Physics</td>
<td>3</td>
</tr>
<tr>
<td>RTT 82 Applied Dosimetry I</td>
<td>2</td>
</tr>
<tr>
<td>RTT 83 Radiation Oncology</td>
<td>3</td>
</tr>
<tr>
<td>RTT 63 Clinical Radiation Therapy III</td>
<td>6</td>
</tr>
<tr>
<td><strong>Additional graduation requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Semester (Spring)</strong></td>
<td></td>
</tr>
<tr>
<td>RTT 85 Radiation Bio</td>
<td>2</td>
</tr>
<tr>
<td>RTT 84 Applied Dosimetry II</td>
<td>2</td>
</tr>
<tr>
<td>RTT 86 Principles of Radiation Therapy II</td>
<td>3</td>
</tr>
<tr>
<td>RTT 64 Clinical Radiation Therapy IV</td>
<td>6</td>
</tr>
<tr>
<td><strong>Additional graduation requirements (All General Education</strong></td>
<td></td>
</tr>
<tr>
<td><strong>graduation requirements should be completed by the end of</strong></td>
<td></td>
</tr>
<tr>
<td><strong>this semester.)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Summer Session</strong></td>
<td></td>
</tr>
<tr>
<td>RTT 87 Principles of Radiation Therapy</td>
<td>1.5</td>
</tr>
<tr>
<td>RTT 65 Clinical Radiation Therapy V</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>62</td>
</tr>
</tbody>
</table>

**Recommended electives:** Courses in Computer Science; PSYC 1, 26; SPCH 11, 12 or 1A; classes in typing and/or keyboarding; HLTH 10, 25, 27, 33, 53, 64, and 67*

*These health courses teach current health issues faced by the local patient population.

### Announcement of Courses

Credit, Degree Applicable Courses:

- RADL 52. Patient Care and Staff Relationships (2)
- Lec-3
- COREQ: DMI 50A

**Students with prior clinical experience admitted to the Diagnostic Medical Imaging or Radiation Therapy Technology program may challenge this course.**

Introduction to the organization of health care in this country, the ethical and interpersonal responsibilities of radiographers, the meaning of illness and therapies to the patient, and theory and practice in assessing patient situations and in meeting basic patient needs at various clinical sites. CSU
RADL 70. Radiation Protection (2)
Lec-2, lab-1
Prereq.: DMI 50A
Coreq.: CLINICAL PLACEMENT FOR DIAGNOSTIC STUDENTS;
Methods of reducing dose per exposure to patients, and safe practices
for protection of personnel. Emphasis is placed on learning State regu-
lations applying to: radiography, fluoroscopy, radiation therapy and
nuclear medicine. CSU

RADL 107. Principles and Techniques of Fluoroscopy (3)
Lec-3, lab-var
Prereq.: STUDENT MUST BE A CALIFORNIA CERTIFIED RADILOGIC
TECHNOLOGIST (CRT) OR, COURSE MAY BE TAKEN CONCURRENTLY IN
THE LAST TWO SEMESTERS OF TRAINING IN A RADILOGIC TECHNO-
LOGY PROGRAM
Fluoroscopy principles including anatomy of appropriate structures,
image intensifiers, image recording systems, illumination and photom-
etry, regulatory provisions, radiation safety and quality assurance. CSU

RTT 61. Clinical Radiation Therapy I (3)
Lab-16
Prereq.: DMI 49, DMI 50A, DMI 52, HLTH 14
Coreq.: RTT 71, DMI 50B, DMI 57
Introduction to radiation therapy clinical education with extensive
department orientation. Provides a foundation for the student’s specific
role in the clinical setting with an emphasis on teamwork, ethics, radia-
tion protection, clinical assignments, patient-centered clinical practice
and professional development. CSU

RTT 62. Clinical Radiation Therapy II (4)
Lab- 352 total hours
Prereq.: RTT 61, RTT 71
Coreq.: RTT 72, RTT 73
Beginning level practical clinical experience in a radiation therapy
department. Observation and participation in simple treatment
set-ups with an emphasis on concepts of team practice, professional
development and patient-centered care. Familiarity with a variety of
equipment as used in simple treatment protocols. CSU

RTT 63. Clinical Radiation Therapy III (6)
Lab-32
Prereq.: RTT 62, RTT 72, RTT 73
Coreq.: RTT 81, RTT 82, RTT 83
Intermediate level practical experience in a radiation therapy depart-
ment. Active participation in simple and complex treatment set-ups
with an emphasis on concepts of team practice and professional de-
velopment. Patient-centered care focusing on management of treatment
side effects, pre-procedural education and nutrition. CSU

RTT 64. Clinical Radiation Therapy IV (6)
Lab-32
Prereq.: RTT 63, RTT 81, RTT 82, RTT 83
Coreq.: RTT 84, RTT 85, RTT 86
Clinical participation including advanced radiation therapy treat-
ments with an introduction to simulation. Concepts of team practice,
patient-centered clinical practice and professional development.
Concentration on completing procedures under supervision, but with-
out assistance, using independent judgment. CSU

RTT 65. Clinical Radiation Therapy V (4)
Lab-320 total hours
Prereq.: RTT 64, RTT 84, RTT 85, RTT 86
Coreq.: RTT 87
Professional level clinical participation in radiation therapy treat-
ments and simulation. Students assist in treatment planning, perform
simulations, and participate in radiation treatments. Concentration
on completing procedures under supervision, but without assistance,
using independent judgment at the level of an entry-level radiation
therapist. CSU

RTT 71. Orientation to Radiation Therapy (4.5)
Lec-4, lab-2
Prereq.: DMI 49, DMI 50A, RADL 52
Coreq.: DMI 50B, RTT 61
Overview of foundations in radiation therapy and practitioner’s role in
health care delivery system. Principles, practices and policies of educa-
tional program, health care organizations, principles of radiation and
professional responsibilities of the radiation therapist; concepts related
to disease neoplasia, and associated diseases in the radiation therapy
patient. CSU

RTT 72. Principles of Radiation Therapy I (1.5)
Lec-24 total hours
Prereq.: RTT 71, RTT 61
Coreq.: RTT 73, RTT 62
Overview of equipment used in radiation therapy with a historical
perspective. Emphasis on external beam radiotherapy machines; pro-
duction and recording of radiographic images for patient simulation,
treatment planning and treatment verification in radiation oncology
are discussed. CSU

RTT 73. Patient Care in Radiation Therapy (1.5)
Lec-24 total hours
Prereq.: RTT 71, RTT 61
Coreq.: RTT 72, RTT 62
Content is designed to provide the student with foundation concepts
and competencies in assessment and evaluation of the radiation
therapy patient with an emphasis on cultural competency in health
care. Psychological and physical needs and factors affecting treatment
outcome will be presented and examined. Routine and emergency care
procedures as encountered in the radiation therapy departments will
be presented. CSU

RTT 81. Radiation Therapy Physics (3)
Lec-2, lab 3
Prereq.: RTT 72, RTT 73, RTT 62
Coreq.: RTT 63, RTT 82, RTT 83
Advanced radiation physics as applied to radiation therapy, detailed
analysis of the structure of matter, properties of radiation, nuclear
transformations, x-ray production and interactions of ionizing radia-
tion. Treatment units used in external radiation therapy, measurement/
quality of ionizing radiation produced, absorbed dose measurement,
dose distribution, scatter analysis and QA. CSU

RTT 82. Applied Dosimetry I (2)
Lec-2
Prereq.: RTT 72, RTT 73, RTT 62
Coreq.: RTT 81, RTT 63
Study of factors that influence and govern clinical planning of
radiation therapy treatments with an emphasis on hand dosimetric
calculations of prescribed dose. Interrelationships of various factors
used in treatment calculations will be explored and examined. CSU
RTT 83. Radiation Oncology (3)
Lec-3  
Prereq.: RTT 72, RTT 73, RTT 62  
Coreq.: RTT 81, RTT 82, RTT 63  
Management of neoplastic disease using knowledge in arts and sciences, while promoting critical thinking and the basis of ethical clinical decision making. Epidemiology, etiology, detection, diagnosis, patient condition, treatment and prognosis of neoplastic disease as related to histology, anatomical site and patterns of spread. CSU

RTT 84. Applied Dosimetry II (2)
Lec-2  
Prereq.: RTT 82, RTT 83, RTT 63  
Coreq.: RTT 85, RTT 86, RTT 64  
Advanced study of factors that influence and govern clinical planning of radiation therapy treatments with an emphasis on isodose characteristics, patient contouring, dosimetric calculations, compensation and clinical application of treatment beams. Optimal treatment planning is emphasized along with IMRT. Stereotactic Radiotherapy and emerging technologies. CSU

RTT 85. Radiation Biology (2)
Lec-2  
Prereq.: RTT 81, RTT 82, RTT 83, RTT 63  
Coreq.: RTT 84, RTT 86, RTT 64  
Basic concepts and principles of radiation biology. Interactions of radiation with cells, tissues, systems, total body and resultant biophysical events. Discussion of theories and principles of tolerance dose, time-dose relationships, fractionation schemes and the relationship to the clinical practice of radiation therapy. CSU

RTT 86. Principles of Radiation Therapy II (3)
Lec-2, lab-3  
Prereq.: RTT 81, RTT 82, RTT 83, RTT 63  
Coreq.: RTT 84, RTT 85, RTT 64  
Focus on complex technical skills required in radiation therapy clinical practice with emphasis on tumor volume localization and treatment simulation. Radiation therapy operational issues, human resource concepts impacting the radiation therapist, in addition to billing and reimbursement issues pertinent to the radiation therapy department. CSU

RTT 87. Principles of Radiation Therapy III (1.5)
Lec-24 total hrs  
Prereq.: RTT 84, RTT 85, RTT 86, RTT 64  
Coreq.: RTT 65  
Consolidation of Radiation Therapy topics designed to prepare students for the certification examination administered by the American Registry of Radiologic Technologists. CSU

Announcement of Curricula

Russian
Office: Art 202  
Phone Number: (415) 239-3223  
Web Site: www.ccsf.edu/forlang

Announcement of Courses

Students of beginning Russian are directed to consider RUSS 1, 1A, and 10A.

Credit, Degree Applicable Courses:

RUSS 1. Elementary Russian (5)
Lec-5, lab-2  
P/NP available  
Advisory: ENGL 93 or 94; or ESL 160 or ESL 170 or English Language Course
Not open to students who are enrolled in or who have completed RUSS 21
Beginner’s course. Grammar, composition and reading. Practice in speaking and understanding Russian. CSU/UC

RUSS 1A-1B. Elementary Russian (3-3)
Lec-3, lab-2  
P/NP available  
Prereq: For RUSS 1B: RUSS 1A or demonstration of RUSS 1A exit skills  
Advisory: ENGL 93 or 94; or ESL 160 or ESL 170 or English Language Course
Not open to students who are enrolled in or who have completed RUSS 21A-21B.
Grammar, composition and reading. Practice in speaking and understanding Russian. CSU/UC

RUSS 1A+1B = RUSS 1

RUSS 2. Continuation of Elementary Russian (5)
Lec-5, lab-2  
P/NP available  
Prereq: RUSS 1 or 1B or demonstration of RUSS 1/1B exit skills  
Not open to students who are enrolled in or who have completed RUSS 22
Second semester course: Continuation of elementary grammar; composition and reading; continued practice in conversation. CSU/UC

Courses Required for the Certificate of Accomplishment in Russian

Core Courses

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS 1 Elementary Russian</td>
<td>5</td>
</tr>
<tr>
<td>RUSS 1A, 1B Elementary Russian</td>
<td>3-3</td>
</tr>
<tr>
<td>RUSS 2 Continuation of Elementary Russian</td>
<td>5</td>
</tr>
<tr>
<td>RUSS 2A, 2B Continuation of Elementary Russian</td>
<td>3-3</td>
</tr>
<tr>
<td>RUSS 3 Intermediate Russian</td>
<td>5</td>
</tr>
<tr>
<td>RUSS 3A, 3B Intermediate Russian</td>
<td>3-3</td>
</tr>
<tr>
<td>RUSS 21 Elem Russian for Bilingual Students</td>
<td>5</td>
</tr>
<tr>
<td>RUSS 21A, 21B Elem Russian for Bilingual Students</td>
<td>3-3</td>
</tr>
<tr>
<td>RUSS 22 Continuation of Elem Russian/Bilingual Students</td>
<td>5</td>
</tr>
<tr>
<td>RUSS 22A, 22B Intermediate Russian</td>
<td>3-3</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS 10A Beg Practical Spoken Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 10B Continuation of Beg Practical Spoken Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 10C Intermediate Conversational Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 10D Continuation of Intermediate Conversational Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 20 Independent Studies in Russian</td>
<td>1-3 (variable)</td>
</tr>
<tr>
<td>RUSS 39A-39B Russian Literature in Translation</td>
<td>3-3</td>
</tr>
<tr>
<td>RUSS 41 Russian Culture and Civilization</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 15

Russian Certificate

The Certificate of Accomplishment in Russian provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 units in Russian. Each course must be completed with a final grade of C or higher or Pass. At least 9 units must be selected from the core list. The remaining 6 units may be selected from the elective units.
RUSS 2A-2B. Continuation of Elementary Russian (3-3)
Lec-3, lab-2
Prereq.: For RUSS 2A: RUSS 1 or IB or demonstration of RUSS 1/IB exit skills
Prereq.: For RUSS 2B: RUSS 2A or demonstration of RUSS 2A exit skills
Not open to students who are enrolled in or who have completed RUSS 22A-22B
Continuation of elementary grammar, composition and reading; continued practice in conversation. CSU/UC

RUSS 3. Intermediate Russian (5)
Lec-5, lab-2
Prereq.: RUSS 2 or 2B or 22 or 22B or demonstration of RUSS 2/2B or 22/22B exit skills
Review of grammar and composition; reading of cultural materials; continuing practice in the use and comprehension of spoken Russian. CSU/UC

RUSS 3A-3B. Intermediate Russian (3-3)
Lec-3, lab-2
Prereq.: For RUSS 3A: RUSS 2, 2B, 22, or 22B or demonstration of RUSS 2/2B or 22/22B exit skills
Prereq.: For RUSS 3B: RUSS 3A or demonstration of RUSS 3A exit skills
Review of grammar and composition; reading of cultural materials; continuing practice in the use and comprehension of spoken Russian. CSU/UC
RUSS 3A+3B = RUSS 3

Fourth Semester Russian
Available through the cross-registration policy of the San Francisco Consortium. See the Department Chair of the Foreign Language Department.

RUSS 10A. Beginning Practical Spoken Russian (3)
Lec-3, lab-2
Prereq.: For RUSS 1A: Oral fluency in Russian
Beginning course. Extensive oral training in Russian. Emphasis on practical vocabulary and idiom rather than on formal grammar. CSU

RUSS 10B. Continuation of Beginning Practical Spoken Russian (3)
Lec-3, lab-2
Prereq.: RUSS 10A or demonstration of RUSS 10A exit skills
Open to native speakers of Russian only with the consent of the instructor
Second semester course. Extensive oral training in Russian. Emphasis on practical vocabulary and idiom. CSU

RUSS 10C. Intermediate Conversational Russian (3)
Lec-3, lab-2
Prereq.: RUSS 10B or demonstration of RUSS 10B exit skills
Open to native speakers of Russian only with the consent of the instructor
Third semester course. Continuation of extensive oral training in Russian. Designed for students who wish to continue acquiring advanced skills of spoken Russian with a minimum of formal grammar. CSU

RUSS 10D. Continuation of Intermediate Conversational Russian (3)
Lec-3, lab-2
Prereq.: RUSS 10C or demonstration of RUSS 10C exit skills
Open to native speakers only with the consent of the instructor
Fourth semester course. Continuation of extensive oral training in Russian. Designed for students who wish to continue acquiring advanced skills of spoken Russian with a minimum of formal grammar. CSU

RUSS 15A-15B. Advanced Russian Conversation (3-3)
Lec-3, lab-2
Prereq.: RUSS 10C or 10D or 3 or 3B or demonstration of RUSS 10C, 10D, 3, or 3B exit skills
RUSS 15A is not prerequisite to RUSS 15B
Advanced conversation on Russian culture and civilization. CSU/UC

RUSS 20. Independent Studies in Russian (1-3)
Ind st-5,10,15
Prereq.: RUSS 2 or 10C or 10D or demonstration of RUSS 2 or 10C or 10D exit skills
Repeat: max. 3 units
An individualized study program for improving and increasing reading and writing skills in the Russian language. CSU (UC upon review)

RUSS 21. Elementary Russian for Bilingual Students (5)
Lec-5
Prereq.: Oral fluency in Russian
Not open to students who are enrolled in or who have completed RUSS 1
Designed for students who are effective in oral communication in Russian within their communities, but who have little and/or no formal training in the written forms of the language.
Beginner’s course for bilingual students; elementary grammar, composition and reading; special emphasis on the written aspect of the language. CSU/UC
RUSS 21A+21B = RUSS 21

RUSS 21A-21B. Elementary Russian for Bilingual Students (3-3)
Lec-3
Prereq.: For RUSS 21A: Oral fluency in Russian
Prereq.: For RUSS 21B: Oral fluency in Russian or RUSS 21A
Not open to students who are enrolled in or who have completed RUSS 1A+1B.
Designed for students who are effective in oral communication in Russian within their communities, but who have little and/or no formal training in the written forms of the language.
Beginner’s courses for bilingual students; elementary grammar, composition, and reading; special emphasis on the written aspect of the language. CSU/UC
RUSS 21A+21B = RUSS 21

RUSS 22. Continuation of Elementary Russian for Bilingual Students (5)
Lec-5
Prereq.: Oral fluency in Russian or RUSS 21 or 21B
Not open to students who are enrolled in or who have completed RUSS 2.
Designed for bilingual students who are effective in oral communication in Russian within their communities, but who have little and/or no formal training in the written forms of the language.
Second semester course for bilingual students; continuation of elementary grammar, composition and reading; special emphasis on the written aspect of the language. CSU/UC
RUSS 22A-22B. Continuation of Elementary Russian for Bilingual Students (3-3)
Lec-3 P/NP available
Prereq.: For RUSS 22A: Oral fluency in Russian or RUSS 21 or 21B
Prereq.: For RUSS 22B: Oral fluency in Russian or RUSS 22A
Designed for bilingual students who are effective in oral communication in Russian within their communities, but who have little and/or no formal training in the written forms of the language.
Not open to students who are enrolled in or who have completed RUSS 2 or 2A+2B
Second level courses for bilingual students; continuation of elementary grammar, composition, and reading; special emphasis on the written aspect of the language. CSU/UC.
RUSS 22A+22B = RUSS 22

RUSS 39A-39B. Russian Literature in Translation (3-3)
Lec-3 P/NP available
Advise: ENGL 96 or Placement in ENGL 1A
RUSS 39A is not prerequisite to RUSS 39B
No knowledge of Russian required.
Reading and discussion of Russian literature in English translation. CSU/UC.

RUSS 39A. Russian literature and selected authors of the twelfth to nineteenth centuries, with main emphasis on the nineteenth century.
RUSS 39B. Russian literature and selected authors of the twentieth century.

RUSS 41. Russian Culture and Civilization (3)
Lec-3 P/NP available
Advise: Eligible for ENGL 1A
No knowledge of Russian required.
A consideration of the major achievements of Russian culture as reflected in language, history, literature, the arts, philosophy, religion and daily life. CSU/UC.

Credit Toward Graduation. Credit earned to obtain the Certificate of Accomplishment satisfies the Area D, Area H and Area A requirements for an A.A. degree at CCSF. All course work is transferable to the California State University system with SOC 1 and 2 meeting the D0 requirement, PSYC 1, 10, 22, 23 and 26 meeting the D9 requirement and LERN 60 meeting the E requirement. SOC 1 and PSYC 1 apply to the Area 4 IGETC requirement. PSYC 1, 10, SOC 1 and 2 all transfer to the UC System, and PSYC 1 and SOC 1 are required for junior year enrollment in the B.A. social work program at San Francisco State University.

The Certificate requires completion of 17 units. Students may choose any combination of the following courses for a total of 17 units; however, LERN 62 and 60 are strongly recommended for human services workers who are responsible for providing welfare to welfare recipients, and PSYC 10 and SOC 2 are strongly recommended for human services workers who are involved with the mental health system.

Courses Required for the Certificate of Accomplishment in Introduction to Human Services

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LERN 60 Career Success and Life Planning</td>
<td>3</td>
</tr>
<tr>
<td>LERN 62 Successful Job Search Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 10 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 14 Psychology of Shyness &amp; Self Esteem</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 15 Assertive Behavior</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 22 or 23 Psychol of Race &amp; Ethnic Relat</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 26 Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1 Intro to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 2 Social Deviance and Social Issues</td>
<td>3</td>
</tr>
<tr>
<td>SOC 50 Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>SOC 51 Human Services Case Management</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
</tr>
</tbody>
</table>

Announcement of Courses

Credit, Degree Applicable Courses:
SOC 1. Introduction to Sociology (3)
Lec-3 P/NP available
Advise: ENGL 92 or ESL 160 or Placement in ENGL 93 or ESL 170
Designed for general education or those students majoring in one of the behavioral sciences. Introduction to human interaction from the sociological perspective and through the utilization of sociological concepts, theories and principles. Topics include culture, socialization, organizations, deviance, deviance, stratification, institutions, population, and social change. CSU/UC (C-ID SOCI 110)

SOC 2. Social Deviance and Social Issues (3)
Lec-3 P/NP available
Description and analysis of deviance in the United States. Crime, drug abuse, prostitution, child abuse, rape, mental disorder and other forms of deviance are discussed in terms of socio-psychological processes and effects, changing society and the politics of deviance. CSU/UC

SOC 3. Social Problems (3)
Lec-3 P/NP Available
Critical exploration of sociological research and thinking about contemporary social problems, including the types and causes of discrimination, as well inequalities in society. Using a variety of sociological perspectives, this course explores the causes and consequences of social problems on individuals and societies, and the methods for social change and problem solutions. CSU (C-ID SOCI 115)
SOC 25. Sex and Gender in American Society (3)
Lec-3 P/NP available
How social institutions such as education, family, work, law, etc. affect women and men differently; how gender roles influence self-concept as well as educational opportunities. Examines the contemporary status of all American women, including African American, Latina, and Asian American, in terms of differences and similarities. The strategies, policies, and laws necessary to eliminate sexism from society and to create alternatives for women and men. CSU/UC

SOC 30. Social Psychology (3)
Lec-3 P/NP available
The dynamics of human behavior from the perspective of social psychology, emphasizing the social-psychological orientations of contemporary sociology. Investigation of interaction processes in the person-environment relationship. Topics such as communication, socialization, role taking, self-identity, personal organization, and social structure. CSU/UC

SOC 35. Sex, Marriage, and Family Relationships (3)
Lec-3 P/NP available
A cross-cultural and cross-social study of family relationships, their development and diversity. Focus on family structure and on the functions of family relations, both contemporary and historical, in such areas as sex, reproduction, child-rearing, economics and social support; family problems and marital dissolution. CSU/UC (C-ID SOCI 130)

SOC 50. Introduction to Human Services (3)
Lec-3 P/NP available
Theory and practice of the human service professions. Provides basic knowledge of the history and social science foundations of the field along with current practices, the roles and activities of the human service professional and legal and ethical issues pertinent to practice. CSU

SOC 51. Human Services Case Management (3)
Lec-3 P/NP available
Basic training and skills in the theory and practice of case management as a major modality of delivery of human services. Intake interview and psychosocial assessment techniques. Organization and design of a case plan and its implementation. Legal, ethical and professional development issues related to the role of a case manager. CSU

Spanish
Office: Art 202
Phone Number: (415) 239-3223
Web Site: www.ccsf.edu/forlang

Announcement of Curricula

Spanish Major (AA)

Program Information. The Spanish program provides instruction in developing a student's ability to communicate in Spanish, both written and oral, through the intermediate level and to gain a knowledge of Hispanic cultures throughout the world. The program is designed to meet transfer goals as well as personal development and career growth. Students must complete the curriculum with final grades of C or higher in their major preparation.

Degree Curriculum. The Degree Curriculum in Spanish is a two-year course of study designed to build a strong language foundation as well as expose students to Hispanic cultural content and some literature. Students who complete the curriculum are better prepared to transfer to the CSU and UC systems as well as other universities with the intent of majoring or minoring in Spanish.

Courses Required for the Major in Spanish
Students must complete a minimum of 12 units chosen from Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 2 or 2A + 2B Cont. of Elem. Spanish</td>
<td>5 or 6</td>
</tr>
<tr>
<td>SPAN 3 or 3A + 3B Intermediate Spanish</td>
<td>5 or 6</td>
</tr>
<tr>
<td>SPAN 6 or 6A + 6B Cont. of Inter. Spanish</td>
<td>5 or 6</td>
</tr>
<tr>
<td>SPAN 7 Introduction to Literature in Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 22A + 22B. Grammar Review and Composition</td>
<td>6</td>
</tr>
<tr>
<td>SPAN 31A - 31B Inter. Spanish for Bilingual Students</td>
<td>3 - 3</td>
</tr>
</tbody>
</table>

An additional six (6) units must be completed from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 1 or 1A + 1B Elementary Spanish</td>
<td>5 or 6</td>
</tr>
<tr>
<td>SPAN 10B Beginning Conv. Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10D Intermediate Conv. Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 5-5S Adv. Spanish: Conv. on Hispanic Culture and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 41 Culture and Civilization of Spain</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 18

Spanish Certificate
The Certificate of Accomplishment in Spanish provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 units in Spanish. Each course must be completed with a final grade of C or higher or Pass. At least 9 units must be selected from the core list. The remaining 6 units may be selected from the elective units.

Courses Required for the Certificate of Accomplishment in Spanish

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 1 Elementary Spanish</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 1A, 1B Elementary Spanish</td>
<td>3 - 3</td>
</tr>
<tr>
<td>SPAN 2 Continuation of Elementary Spanish</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 2A, 2B Cont of Elementary Spanish</td>
<td>3 - 3</td>
</tr>
<tr>
<td>SPAN 3 Intermediate Spanish</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 3A, 3B Intermediate Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 5, 5S Adv Spanish: Conversation on Hispanic Culture and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 6 or 6A + 6B Cont. of Inter. Spanish</td>
<td>5 or 6</td>
</tr>
<tr>
<td>SPAN 7 Introduction to Literature in Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 22A + 22B. Grammar Review and Composition</td>
<td>6</td>
</tr>
<tr>
<td>SPAN 31, 32 Int Spanish for Biling Students</td>
<td>5 - 5</td>
</tr>
<tr>
<td>SPAN 31A, 31B Inter Span for Biling Students</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 10A Beg Conversational Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10B Cont of Beg Conversational Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10C Intermediate Conversational Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10D Cont of Inter Conversational Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 41 Culture and Civilization of Spain</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 15

Announcement of Courses
Students of beginning Spanish are directed to consider Spanish courses numbered 1, 1A, and 10A.

A placement test in Spanish is available for guidance in selecting the appropriate course. For information, call 239-3223.
Credit, Degree Applicable Courses:
SPAN 1. Elementary Spanish (5)
Lec-5, lab-2 P/NP available
Advise: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170 or any City College or university foreign language course.
Beginner's course. Grammar, composition and reading. Practice in speaking and understanding Spanish. CSU/UC

SPAN 2. Continuation of Elementary Spanish (5)
Lec-5, lab-2 P/NP available
Prereq.: For SPAN 1B: SPAN 1A or Demonstration of SPAN 1A exit skills
Advise: SPAN 1A: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170 or any City College or university foreign language course.
Advise: SPAN 1B: ENGL 93 or 94 or higher or any City College or university foreign language course.
Grammar, composition and reading. Practice in speaking and understanding Spanish. CSU/UC

SPAN 2A-2B. Continuation of Elementary Spanish (3-3)
Lec-3, lab-2 P/NP available
Prereq.: For SPAN 2A: SPAN 1 or 1B or Demonstration of SPAN 1/1B exit skills
Second semester course. Completion of elementary grammar. Composition and reading. Continued practice in conversation. CSU/UC

SPAN 3. Intermediate Spanish (5)
Lec-5, lab-2 P/NP available
Prereq.: SPAN 2 or 2B or Demonstration of SPAN 2/2B exit skills
Intensive review of grammar. Culture and composition. Designed for students who need reinforcement and expansion of the structures of the Spanish language. Conducted in Spanish. CSU/UC

SPAN 3A-3B. Intermediate Spanish (3-3)
Lec-3, lab-2 P/NP available
Prereq.: SPAN 2 or 2B or Demonstration of SPAN 2/2B exit skills
SPAN 3A is not prerequisite to SPAN 3B
Intensive review of grammar. Culture and composition. Designed for students who need reinforcement and expansion of the structures of the Spanish language. Conducted in Spanish. CSU/UC

SPAN 5-5S. Advanced Spanish: Conversation on Hispanic Culture and Civilization (3-3)
Lec-3, lab-1 P/NP available
Prereq.: SPAN 2 or 2B or Demonstration of SPAN 2/2B exit skills
SPAN 5 is not prerequisite to SPAN 5S.
Readings in and discussions of Hispanic Civilization: Spain and Latin America. Exclusively oral training to acquire greater command of the spoken language through building vocabulary, improving pronunciation and expressing ideas in a more natural manner. Conducted in Spanish. CSU/UC

SPAN 5. Paleolithic Period to the Golden Age
SPAN 5S. Golden Age to Present

SPAN 6. Continuation of Intermediate Spanish (5)
Lec-5, lab-2 P/NP available
Prereq.: SPAN 3 or 3B or Demonstration of exit skills
Intensive review of grammar, culture and composition. Designed for students who need reinforcement and expansion of the structures of the Spanish language. Conducted in Spanish. CSU/UC

*SPAN 6A and SPAN 6B are equivalent to SPAN 6: maximum credit, 6 units.

SPAN 6A. Continuation of Intermediate Spanish (3)
Lec-3, lab-2 P/NP available
Prereq.: SPAN 3 or 3B or Demonstration of exit skills
Intensive review of grammar, culture and composition. Designed for students who need reinforcement and expansion of the structures of the Spanish language. Conducted in Spanish. CSU/UC

SPAN 6B. Continuation of Intermediate Spanish (3)
Lec-3, lab-2 P/NP available
Prereq.: SPAN 6A or Demonstration of exit skills
Intensive review of grammar, culture and composition. Designed for students who need reinforcement and expansion of the structures of the Spanish language. Conducted in Spanish. CSU/UC

SPAN 7. Introduction to Literature in Spanish (3)
Lec-3, lab-2 P/NP available
Prereq.: SPAN 6 or 6B or Demonstration of exit skills
Readings of literary and cultural selections; composition; review of selected grammar. CSU/UC

SPAN 10A. Beginning Conversational Spanish (3)
Lec-3, lab-2 P/NP available
Advise: Concurrent enrollment in SPAN 1, 1A or 1B
Not open to native speakers of Spanish.
Beginner's course. Intensive oral practice of basic structures and vocabulary most often used in conversation. Designed for students who wish to acquire basic skills of spoken Spanish. CSU

SPAN 10B. Continuation of Beginning Conversational Spanish (3)
Lec-3, lab-2 P/NP available
Prereq.: SPAN 10A or Demonstration of SPAN 10A exit skills
Advise: Concurrent enrollment in SPAN 2, 2A, or 2B
Not open to native speakers of Spanish.
Second semester course: Extensive oral practice of basic structures and vocabulary most often used in conversation. Designed for students who wish to acquire basic skills of spoken Spanish. CSU

SPAN 10C. Intermediate Conversational Spanish (3)
Lec-3, lab-2 P/NP available
Prereq.: SPAN 10B or Demonstration of SPAN 10B exit skills
Advise: Concurrent enrollment in SPAN 3 or 4
Not open to native speakers of Spanish.
Third semester course: Extensive oral practice of basic structures and vocabulary most often used in conversations. Designed for students who want to acquire more advanced skills of spoken Spanish. CSU
SPAN 10D. Continuation of Intermediate Conversational Spanish (3)
Lec-3, lab-2
P/NP available
Prereq.: SPAN 10C or demonstration of SPAN 10C exit skills
Advise: Concurrent enrollment in SPAN 3, 3A, 3B, 4, or 5
Not open to native speakers of Spanish
Fourth semester course. Extensive oral practice of basic structures and vocabulary most often used in conversation. Designed for students who wish to acquire basic skills of spoken Spanish. CSU

SPAN 22A-22B. Grammar Review and Composition (3)
Lec-2, lab-3
P/NP available
Prereq.: SPAN 3 or equivalent
Advanced review of grammar and composition with attention to style, vocabulary development, and grammatical structure. Course taught in Spanish. CSU/UC

SPAN 31-32. Intermediate Spanish for Bilingual Students (5-5)
Lec-5
P/NP available
SPAN 31 is NOT prerequisite to SPAN 32
Advise: Oral fluency in Spanish
Intensive review of grammar. Composition and translation. Designed for bilingual students who are effective in oral communication in Spanish within their communities, but have little knowledge or formal training in written forms of the Spanish language. Emphasis on increasing vocabulary, reading, and writing skills through short stories, essays, and guided compositions. CSU/UC

SPAN 31A-31B. Intermediate Spanish for Bilingual Students (3-3)
Lec-3
P/NP available
Advise: Oral fluency in Spanish
Intensive review of grammar. Composition and translation. Designed for bilingual students who are effective in oral communication in Spanish within their communities, but have little knowledge or formal training in written forms of the Spanish language. Emphasis on increasing vocabulary, reading and writing skills through short stories, essays and guided compositions. CSU/UC

SPAN 31A-31B = SPAN 31

SPAN 41. Culture and Civilization of Spain (3)
Lec-3
P/NP available
Advise: ENGL 96 or PLACEMENT IN ENGL 1A
No knowledge of Spanish required
Aspects and achievements of the culture and civilization of Spain as reflected in its geography, history, language, literature, governmental and social institutions, art, architecture, music, religion, and daily life. CSU/UC

Speech Communication
Office: Cloud 408C
Phone Number: (415) 452-4842
Web Site: www.ccsf.edu/speech

Announcement of Curricula

Speech Communication Major (AA-T)
Associate in Arts in Communication Studies for Transfer. This program is designed to prepare students who wish to transfer to pursue studies in Communication Studies. Communication studies majors learn the theory and principles behind communication processes and acquire skills needed to effectively communicate with others—both within and across cultural boundaries—in a variety of public, professional, and interpersonal settings.

Learning Outcomes
Upon completion of this degree, students will be able to:

- Articulate an understanding of the way humans manage and process symbolic behavior and how communication practices shape our cultural and political realities. Students will articulate an understanding on how communication practices change across contexts such as the public forum, small group settings, and interpersonal relationships.
- Identify and use communication practices that are culturally dependent and demonstrate how to effectively communicate across diverse cultural understandings. Students will display intercultural literacy, sensitivity, and self-reflective strategies.
- Manage speaking anxiety and furnish effective verbal presentations alongside presentational media, demonstrating effective analysis of audience, environment, message-making (both verbal and non-verbal), organizational principles, and delivery skills.
- Structure logical, credible, and well researched arguments that re-enforce or effectuate change around attitudes, beliefs, and social and political polices and exhibit advanced critical thinking skills.

Courses Required for the Major in Communication Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td></td>
</tr>
<tr>
<td>SPCH 1A Elements of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 5 Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1B Reading, Writing, and Critical Thinking or ENGL 1C Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>Choose any 2 courses from the following:</td>
<td></td>
</tr>
<tr>
<td>SPCH 3 Argumentation and Debate</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 20 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 4 Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>Choose 1 course from the following:</td>
<td></td>
</tr>
<tr>
<td>SPCH 7 Oral Interpretation of Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 37 Intracollegiate Forensics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 38 Intercollegiate Forensics</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
</tr>
</tbody>
</table>

Speech Communication Certificate

Courses Required for the Certificate of Accomplishment in Speech Communication

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 12 Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 4 Group Communication or SPCH 20 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1A Elem of Public Speaking or SPCH 11 Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 3 Argument and Debate or SPCH 37 Intracollegiate SPC Comp</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 38 Intercollegiate SPC Comp</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>12</td>
</tr>
</tbody>
</table>
Announcement of Courses

Credit, Non-Degree Applicable Courses:

SPCH G. Oral Communication for Teams (1)
Lec-1  P/NP available
An introduction to the basic principles and methods of oral communication with emphasis on improving speaking and listening skills in the context of small group discussion.

SPCH H. Oral Presentation Skills (1)
Lec-1  P/NP available
An introduction to the theory, basic principles, and methods of oral communication with emphasis on improving speaking and listening skills in the context of public speaking.

SPCH I. One-on-One Oral Communication (1)
Lec-1  P/NP available
An introduction to the theory, basic principles, and methods of oral communication with emphasis on improving speaking and listening skills in the context of interpersonal communication.

Credit, Degree Applicable Courses:

SPCH 1A. Elements of Public Speaking (3)
Lec-3  P/NP available
Prereq.: ENGL 96
Mastery of the research, organization and delivery of extemporaneous speeches. Focus on rhetorical theory, critical audience analysis, speech outlining, evidence testing, and use of visual aids. CSU/UC (C-ID COMM 110)

SPCH 2. Introduction to Rhetorical Criticism (3)
Lec-3  ENGL 1A
Prereq.: ENGL 1A
Studies of the rhetorical tradition and significant rhetorical artifacts. Analysis of public discourse through the application of rhetorical methodologies. Rhetorical strategies are evaluated for support, reasoning, language use, message construction, and understanding of the situation. Emphasizes critical thinking principles alongside techniques of effective written and spoken discourse. CSU/UC

SPCH 3. Argumentation and Debate (3)
Lec-3  P/NP available
Advis: ENGL 96 or Placement in ENGL 1A
Primary emphasis on argumentation as the study of analysis, evidence, reasoning, refutation, and rebuttal, etc. in oral and written communication. Significant component of instruction in oral argumentation. Critical Thinking approaches to commercial, legal, political, and academic argumentation and persuasion. CSU/UC

SPCH 4. Group Communication (3)
Lec-3  P/NP available
Advis: ENGL 96 or Placement in ENGL 1A
Training in the basic methods and principles of problem solving, leadership, decision making, and critical thinking through group communication; methods of inquiry and advocacy for participation in group discussions and presentations. CSU/UC (C-ID COMM 140)

SPCH 5. Intercultural Communication (3)
Lec-3  P/NP available
Prereq.: ENGL 92 or ESL 160 or Placement in ENGL 93 or 94; or ESL 170
Familiarize students with the theory and the process of communicating with people across cultural, ethnic and racial divides. Specific focus will be development of the ability to acknowledge and understand the unique voice of people from the African, Asian, Middle Eastern and Latino cultures as well as co-cultures within the United States. Students will study theories from interpersonal and intergroup, intercultural anthology and a multicultural history text. Through lectures, readings, films, group discussions, written and oral assignments, students learn the skills necessary to achieve positive outcomes when communicating with others that are perceived as different. CSU/UC

SPCH 6. Workplace Communication (3)
Lec-3  P/NP available
Prereq.: ENGL 93 or ESL 160
The study and application of workplace communication principles. Focus on mastering the communication skills that can promote professional and career opportunities, workplace relationships, team building and effective business presentation skills. CSU

SPCH 7. Oral Interpretation of Literature (3)
Lec-3  P/NP available
Focus on interpretation as a creative and analytical meaning-making process. Training in solo, duet and group readings of drama, prose and poetry. Through selecting, reading, analyzing, editing and interpreting current and culturally diverse literature, students will better understand the structural and aesthetic components of narrative and performance. CSU/UC

SPCH 11. Basic Public Speaking (3)
Lec-3  P/NP available
Prereq.: ENGL 93 or ESL 160 or Placement in ENGL 96 or ESL 170
Effective organization and presentation of ideas in public speaking situations. Major topics include audience analysis and overcoming speaking anxiety. This course is designed for beginning public speakers wishing to learn basic public speaking skills. CSU

SPCH 12. Fundamentals of Oral Communication (3)
Lec-3  P/NP available
Prereq.: ENGL 93 or ESL 160 or Placement in ENGL 96 or ESL 170
An introduction to the theory, basic principles, and methods of oral communication with emphasis on improving speaking and listening skills in the context of interpersonal communication, small group discussion, and public speaking. CSU

SPCH 20. Interpersonal Communication (3)
Lec-3  P/NP available
Focus on the impact that communication has on the interaction between individuals in settings including family, friendship, intimate and work situations. Students are expected to demonstrate and apply these skills through individual and group presentations and activities. CSU/UC

SPCH 37. Intracollegiate Speech Competition (3)
Lec-3, lab-3  P/NP available
Advis: SPCH 1A, 3, 11, 12 or ESL 79
Repeat: max. 6 units
Student competition in intracollegiate forensics tournaments in the following areas: persuasive, informative or impromptu speaking, and oral interpretation of literature (prose, poetry, drama, interpreter’s theater). Development of public speaking skills while being a member of a team. CSU
SPCH 38. Intercollegiate Speech Competition (3)
Lec-3, lab-3 P/NP available

Advise: SPCH 1A, 3, 4, II, 12 or ESL 79
Repeat: max. 6 units

Student competition in intercollegiate forensics tournaments in one or more of the following areas: parliamentary debate, cross-examination debate; oral interpretation; informative, persuasive, speech to entertain; communication analysis, impromptu, and extemporaneous speaking; interpretive theater. Development of public speaking skills while being a member of a team. CSU

Student Health Services
Office: Health 100
Phone Number: (415) 239-3110
Web Site: www.ccsf.edu/Services/Student_Health

Announcement of Courses
Credit, Non-Degree Applicable Courses:

LERN 71. Issues for Women Over 40 (1)
Lec-1 P/NP only
Critical analysis and practical application, and implementation strategies for psychological health issues related to success in college for women over 40.

LERN 72. Boundaries, Abuse and Love (1)
Lec-1 P/NP only
Critical analysis, practical application, self-assessment and implementation strategies for psychological health related to boundaries, abuse and love as related to success in college.

LERN 73. Weight Loss & Life Path Dreams (1)
Lec-1 P/NP only
Critical analysis, practical application, self-assessment and implementation strategies for psychological health issues related to weight loss, refining life goals and success in college.

LERN 75. Quit Smoking Now (.5)
Lec-.5 P/NP only
Critical analysis and practical application of health and psychology related to health effects of smoking and quitting smoking.

LERN 76. Anger, Anxiety & Panic Attacks (.5)
Lec-.5 P/NP only
An analysis of experiential and holistic strategies for psychological health related to managing anger, anxiety and panic attacks.

LERN 77. Stress Reducing Strategies (.5)
Lec-.5 P/NP only
Critical analysis of stress and its impact on learning. Analyze barriers to behavior change. Practical application of Mindfulness-Based Stress Reduction related to success in college.

LERN 78. Anxiety’s Impact on Health (.5)
Lec-.5 P/NP only
Critical analysis and practical application to help individuals understand origins, manifestations, and management of anxiety as related to mental and emotional health.

LERN 79. Fighting Depression (.5)
Lec-.5 P/NP only
Critical analysis and tangible application on depression to help individuals understand the origins, effects, and management of depression as it affects others and themselves.

Theatre Arts
Office: Art 149
Phone Number: (415) 239-3132
Web Site: www.ccsf.edu/theatre

Announcement of Courses
Credit, Degree Applicable Courses:

TH A 15. Play Rehearsal and Presentation (1-3)
Lab-3-6-9, field trips P/NP only
Repeat: max. 12 units

The preparation and interpretive training process that goes into rehearsal and performance presentation in a Theatre Arts Department production. Students must audition for, be cast in, rehearse and perform in the plays in order to receive credit. CSU/UC
Previously TH A 50

TH A 30. Introduction to Theatre (3)
Lec-3, field trips
Repeat: max. 9 units

Designed to compare, contrast and examine the aspects of live theatre including dramatic structure, theater production, history and performance. CSU/UC

TH A 31. Survey of Classical Drama (3)
Lec-3, field trips
Readings and analysis of the plays that form the historical foundation of modern European and American drama. Lectures, reading and discussion of plays from ancient Greece, through Shakespeare to the 19th century. CSU/UC
Previously TH A 104

TH A 32. Survey of Modern Drama (3)
Lec-3, field trips
Readings and analysis of plays that illustrate the major types of drama written for the modern stage. Lectures, reading and discussion of play scripts dating from the advent of 19th Century realism, through the writing of contemporary authors. CSU/UC
Previously TH A 105

TH A 51. Large Scale Musical Performance Preparation (0 unit)
Lab-1-6, field trips
Repeat: max. 3 times
Limited to students who are cast in musical production

The preparation and interpretive training process that goes into rehearsal and performance presentation in a Theatre Arts Department musical production. Students must audition for, be cast in, receive direction in, rehearse and perform in the plays. CSU

TH A 52. Cabaret Performance Preparation (0 unit)
Lab-1-6, field trips
Repeat: max. 3 times
Limited to students who are cast in cabaret production

The preparation and interpretive training process that goes into rehearsal and performance presentation in a Theatre Arts Department musical production.
Theatre Arts

TH A 60. Stagecraft (3)
Lec-2, lab-4, field trips P/NP only
Introduction and practical experience in stage scenery construction, stage properties selection, lighting execution, sound design, scenic painting techniques, and stage management through class lab work and participation in departmental theatrical productions. CSU/UC

TH A 61. Technical Theatre Production (1-2-3)
Lab-3-6-9 P/NP only
Repeat: max. 12 units
Practical experience in stage scenery construction and use in performance, lighting installation and operation, sound equipment set-up and operation, scenic painting techniques, and stage management through participation in Departmental productions. CSU/UC
Formerly TH A 55

TH A 62. Introduction to Stage Design (3)
Lec-3 P/NP available
Introduction to the basic techniques used in stage design with emphasis on script analysis, research, freehand sketching, drafting techniques, ground plans and model making. CSU/UC
Formerly TH A 6

TH A 63. Introduction to Lighting Design (3)
Lec-3, lab-3
Introduction to the basic techniques used in lighting design for live performance with emphasis on the art of lighting design, script analysis, lighting equipment needs and uses, drafting techniques, color theory. The class includes practical application of these concepts in a performance setting as well as a crew assignment. CSU
Formerly TH A 70

TH A 71. Introduction to Make-up and Costume Design (3)
Lec-2, lab-4 P/NP available
Introductory instruction and practical experience in the study of facial and body anatomy, facial design, make-up materials, construction and decorative materials for costumes, theory of color, study of play scripts, laboratory/shop practice and participation in theatre productions. CSU/UC
Formerly TH A 3A

TH A 72. Intermediate Make-up and Costume Design (3)
Lec-2, lab-4 P/NP available
Intermediate instruction and practical experience in the study of facial and body anatomy, facial design, make-up materials, construction and decorative materials for costumes, theory of color, study of play scripts, laboratory/shop practice and participation in theatre productions. CSU/UC
Formerly TH A 3B

TH A 73. Advanced Make-up and Costume Design (3)
Lec-2, lab-4 P/NP available
Advanced instruction and practical experience in the study of facial and body anatomy, facial design, make-up materials, construction and decorative materials for costumes, theory of color, study of play scripts, laboratory/shop practice and participation in theatre productions. CSU/UC
Formerly TH A 3C

TH A 107. Directing for the Theatre (3)
Lec-3
Repeat: max. 9 units
Examination of the function of a stage director and the techniques of stage direction with opportunities for practical experience. CSU/UC

TH A 150. Beginning Acting (3)
Lec-3
Repeat: max. 9 units
Examination, practice and execution of the fundamentals of acting. Staging techniques, improvisation, theatre games, stage movement, and introduction to acting terminology. Classroom presentation of scenes and monologues. CSU/UC
Formerly TH A 101

TH A 151. Character Development and Scene Study (3)
Lec-3
Advise: TH A 150
Repeat: max. 9 units
Analyze, develop and create believable characters, and portray them in class. Concentration in studying scene evolution from selected plays. CSU/UC
Formerly TH A 102

TH A 152. Performance Projects (3)
Lec-3
Advise: TH A 150 and TH A 151 or can demonstrate skills acquired in TH A 150 and TH A 151.
Repeat: max. 9 units
Development of class projects and workshops that will be performed in a studio setting. Investigation of the development of performance skills as they relate to the audience and to specific studio space. CSU/UC
Formerly TH A 103

TH A 153. Improvisation for Actors (3)
Lec-3
Repeat: max. 9 units
An acting class focusing on the creation of original material by the performers for presentation through the techniques of improvisation and scenario. Actor generated narrative and playscripts developed by the actor in an ensemble environment. CSU
Formerly TH A 121

TH A 154. Acting for the Camera (3)
Lec-3, lab-4, field trips
Repeat: max. 12 units
Development of performing skills for video, film and electronic media applications with emphasis on dramatic characterization in a production context. CSU/UC
Formerly TH A 116

TH A 155. Acting Shakespeare: Text Analysis and Performance (3)
Lec-3, field trips
Advise: TH A 150 or demonstration skills acquired in TH A 150 and TH A 151.
Repeat: Vis. & Perf. Arts repeat, max. 9 units
Use of scansion and verse techniques to perform Shakespearean material. Historical, textual, and analytic skills used in an ensemble setting to re-create characters specifically from the dramatic works of William Shakespeare. CSU
Formerly TH A 22
TH A 160. Vocal Production and Audition (3)
Lec-3
Repeat: max. 12 units
Introduction to the anatomy and physiology of the vocal mechanism. Development of voice and articulation with an emphasis on Standard American English for the stage to develop the actor's process in preparation for audition, selection of materials, and presentation of self in various audition settings. CSU
Formerly TH A 123

TH A 161. Storytelling (3)
Lec-3, field trips
Repeat: max. 9 units
Development of the acting skill of storytelling through performance exercises, improvisations, and uses of the literature of folklore, myth, and monologue focusing on narrative, creation of character, and the telling of stories. CSU
Formerly TH A 129

TH A 162. Physical Comedy, Masks and Clowning (3)
Lec-3, field trips
Prereq.: TH A 150
Repeat: max. 9 units
Development of the acting skills focusing on clowning; the creation and use of masks, with special attention to the physical characteristics of comic acting and an introduction to circus skills. Topics include the origins and uses of masks, tragic and comic masks, the fool and origin of the clown, and the performer’s historical uses of these acting tools. CSU
Formerly TH A 124.

TH A 163. Multicultural Theater (3)
Lec-3
P/NP available
Evaluation and demonstration of the importance of the origins of the Asian, African and Latin theatre in the development of the Asian American, African American, and Latin American cultures that form part of the American society of today. CSU/UC
Formerly TH A 17

TH A 164. Character Voices: Voice-Over (3)
Lec-3
Advise: TH A 150
Repeat: max. 12 units
An acting skill class focusing on the vocal aspects of commercial acting. Development of the actor's voice to be used in the recorded media for commercial and industrial purposes, selection of materials and practical application for the creation of characters. CSU
Formerly TH A 143

TH A 165. Playwright’s Performance Workshop (3)
Lec-3, lab-1, field trips
Prereq.: ENGL 93 or 94 or placement in ENGL 96 or demonstration of ENGL 93 or 94 exit skills
Advise: ENGL 35E, 35F
Repeat: max. 12 units
This course is specifically designed to teach the elements of playwriting using all the components of live theatre: directors, writers, and actors. Playwrights work with actors and directors to create, write and revise scenes and scripts based on workshop performances. CSU
Formerly TH A 106

TH A 166. Performance Art New Media Workshop (3)
Lec-3, lab-3
Advise: IDST 125
Repeat: max. 12 units
Development of performance art pieces focusing on the integration of state-of-the-art digital art, computer software and hardware used for theatrical and electronic music productions with performers and scripted presentation. CSU
Formerly TH A 145

TH A 200. Theatre Production (3)
Lec-3, lab-3
P/NP available
Repeat: max. 9 units
Instruction and practical experience in stage scenery construction, stage properties selection, lighting execution, sound design and stage management through participation in theatre productions. CSU/UC

Related Courses:
MUS 44. Music Theatre Workshop (3)
Lec-6, field trips
P/NP available
Repeat: max. 9 units
An opportunity for students interested in musical theatre to study, rehearse, and participate in performances of musical works for the stage. Equal emphasis given to the musical and dramatic elements involved in such productions. For staged, public performances, roles may be assigned subject to audition. CSU/UC

BCST 115. Announcing and Performance (3)
Lec-3
Advise: BCST 120
Introduction to interpretation of copy, pronunciation, and announcer's duties for radio, television, cable, and webcast. Practical experience announcing commercials, news, public service, and other kinds of programs. Performance skills are developed through regular use of audio and video facilities and equipment. CSU

BCST 140. Studio Video Production (3)
Lec-2, lab-4
Theory and operation of video production equipment and facilities. Video production planning and organization, concept development, program design, project documentation, and production management. Production of studio-based video programming for Cable Television Channel 27 and the district's Media Services video production unit. CSU

IDST 38. Shakespeare: “for all time” (3)
Lec-3
P/NP available
Prereq: Eligible for ENGL 1A
An interdisciplinary introduction to Shakespeare’s plays as theater pieces, literature, and historical chronicles. Three instructors from the Theater Arts, English, and History departments examine Shakespeare’s artistry from their respective points of view, using some of his most popular plays. CSU/UC

SPCH 38. Intercollegiate Speech Competition (3)
Lec-3, lab-3
P/NP available
Advise: SPCH 1A, 3, 4, II, 12 or ESL 79
Repeat: max. 6 units
Student competition in intercollegiate forensics tournaments in one or more of the following areas: parliamentary debate, cross-examination debate; oral interpretation; informative, persuasive, speech to entertain; communication analysis, impromptu, and extemporaneous
Transitional Studies

Office: Mission Campus
Phone Number: (415) 920-6131
Web Site: www.ccsf.edu/TRST

Announcement of Curricula

General Information
The Transitional Studies Department offers ongoing instruction in CCSF High School Diploma Program, General Educational Development (GED), Adult Basic Education (ABE), and Vocational Foundation Skills. The curriculum consists of noncredit courses in reading, writing, mathematics, and specific subjects at elementary, intermediate, and advanced levels. Instructional methodology includes both individualized and traditional classroom instruction.

All courses are free of charge and are without college credit.

Program Goals. Provide a comprehensive program leading to the CCSF High School Diploma; prepare students to pass the GED examination; help students to achieve competency in Adult Basic Education; provide students with basic skills for living, employment; develop student readiness to succeed in college credit classes and Career/Technical Certificate programs.

Admission Requirements. All skill levels are accepted. After testing in reading, writing, and mathematics, students are enrolled at a level matching their skills and geared toward their educational objectives. Students entering the GED in Spanish program are required to be fluent and literate in Spanish.

Offered at the following campuses:
Instruction in Spanish is offered only at the Mission Campus.
John Adams ............................................. 561-1900
Adult Learning Center .............................. 241-2300
Mission .................................................. 920-6043
Southeast .............................................. 550-4300
African American Scholastic Program ....... 452-5315

CCSF High School Diploma Program
The City College of San Francisco High School Diploma Program is open to adult students who meet placement requirements. The program is also open to concurrently enrolled high school students who are in the 11th or 12th grades and who require high school credits to transfer to their home high schools.

Concurrently enrolled high school students may earn high school credits that transfer to their home high school by enrolling in Transitional Studies courses by arrangement with the student's high school counselor.

Adult students enroll through the New or Continuing CCSF Counseling Department for a placement test, orientation and educational planning appointment. To earn the CCSF HS Diploma, students must fulfill the following requirements:

Total 160 High School Credits:
110 Minimum Required Core Credits
(A) Natural Sciences ................................. 20 Credits
(B) Social & Behavioral Sciences .............. 30 Credits
(C) Humanities .................................... 10 Credits
(D) English ......................................... 30 Credits
(E) Mathematics .................................... 20 Credits

50 Minimum Flexible/Elective Credits

High School credit may be earned in two ways: by completing coursework or by earning a standard score of 410 or greater in a GED content area examination. Each subtest for the GED is equivalent to 10 high school credits.

The GED Tests (2002 Series) measure knowledge in five different areas: Language Arts, Writing; Social Studies; Science; Language Arts, Reading; and Mathematics. An important feature of the GED Tests is an essay that documents your ability to write and communicate effectively. The minimum passing standard set by the GED Testing Service is an average standard score of 450 or greater across the five content area tests (a total standard score of 2250 or greater) and, in addition, a standard score of 410 or greater on each content area test.

Equivalent high school courses taken at other schools, or comparable college credit classes, may satisfy coursework requirements. Credits may be fulfilled by successful completion of courses in Transitional Studies, CCSF Vocational programs, English as a Second Language (ESL), CCSF credit classes or, with the TRST Department Chair’s permission, any CCSF course. Additionally, courses earned at other high school or college institutions may be transferred to the CCSF HS Diploma Program.

Residency requirement: At least 20 credits must be earned in the Transitional Studies Department or, with the Department Chair’s permission, in other CCSF departments.

English requirement: to qualify for the CCSF HS Diploma, a student must have completed with a grade of C or better, at least one of the Transitional Studies core required English classes, or a CCSF degree-applicable class in the English Department.

Mathematics requirement: to qualify for the CCSF HS diploma, a student must have completed with a grade of C or better, at least one of the Transitional Studies core required mathematics classes, or a CCSF degree-applicable class in the Mathematics Department.

Noncredit Certificate Curricula
Area of Study. Elementary and secondary basic skills. Workforce preparation classes, in the basic skills of speaking, listening, reading, writing mathematics, decision-making, and problem solving skills that are necessary to participate in job-specific technical training.

Adult Basic Education
Level 1 Noncredit Certificate
Goal: A certificate of completion leading to improved employability or job placement opportunities
Areas of Study: Elementary and secondary basic skills.

Certificate Description: The Adult Basic Education Level 1 Certificate of Completion requires successful completion of two courses with a minimum total of 144 hours of instruction. Students earning the Adult Basic Education Level 1 Certificate of Completion will gain skills in reading comprehension, life skills and study skills, and be prepared for academic or vocational education.
Courses Required for the Certificate of Completion in Adult Basic Education Level 1

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td>8–25</td>
</tr>
<tr>
<td>TRST 0035 Individualized Reading &amp; Writing</td>
<td>54–450</td>
</tr>
<tr>
<td>TRST 0036 Reading/Writing Lab</td>
<td>90–180</td>
</tr>
<tr>
<td>Total hours</td>
<td>152–655</td>
</tr>
</tbody>
</table>

**Adult Basic Education Level 2 Noncredit Certificate**

Goal: A certificate of completion leading to improved employability or job placement opportunities.

Areas of Study: Elementary and secondary basic skills.

Certificate Description: The Adult Basic Education Level 2 Certificate of Completion requires successful completion of two courses with a minimum total of 144 hours of instruction. Students earning the Adult Basic Education Level 2 Certificate of Completion will gain skills in writing, reading and mathematics from intermediate through pre-GED level, and will be prepared for GED instruction.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td>8–25</td>
</tr>
<tr>
<td>TRST 0039 ABE/Pre GED Preparation</td>
<td>54–450</td>
</tr>
<tr>
<td>TRST 2422 Math Skills Lab</td>
<td>36–180</td>
</tr>
<tr>
<td>Total hours</td>
<td>144–1015</td>
</tr>
</tbody>
</table>

**Adult Secondary Education Level 3 Noncredit Certificate**

Goal: A certificate of completion leading to improved employability or job placement opportunities.

Areas of Study: Elementary and secondary basic skills.

Certificate Description: The Adult Secondary Education Level 3 Certificate of Completion requires successful completion of two courses with a minimum total of 144 hours of instruction. Students earning the Adult Secondary Education Level 3 Certificate of Completion will gain skills in independent, critical thinking skills and apply these skills to the GED test, the high school diploma, or college coursework. Students will be prepared to successfully pass the General Educational Development Examination and will be prepared for college level academic or vocational classes.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td>8–25</td>
</tr>
<tr>
<td>TRST 0037 High School Learning Lab</td>
<td>54–810</td>
</tr>
<tr>
<td>TRST 0040 GED Preparation</td>
<td>54–540</td>
</tr>
<tr>
<td>TRST 2422 Math Skills Lab</td>
<td>36–180</td>
</tr>
<tr>
<td>Total hours</td>
<td>144–1555</td>
</tr>
</tbody>
</table>

**Academic Skills Elementary Level 1 Noncredit Certificate**

Goal: A certificate of completion leading to improved employability or job placement opportunities.

Area of Study: Elementary and secondary basic skills.

Certificate Description: The Academic Skills Elementary Level 1 Certificate of Completion requires successful completion of two courses with a minimum total of 144 hours of instruction. Students earning the Academic Skills Elementary Level 1 Certificate of Completion will develop reading, vocabulary, and spelling; gain sentence mechanics and paragraph/essay writing skills; develop oral communication, reading, and computer literacy skills. Students will be prepared for academic study in the Academic Skills Intermediate Level 2 Certificate of Completion program, the next level in the high school diploma program.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td>8–25</td>
</tr>
<tr>
<td>TRST 1321 Academic Reading 1</td>
<td>180</td>
</tr>
<tr>
<td>TRST 1322 Academic Reading/Writing 1.5</td>
<td>90</td>
</tr>
<tr>
<td>TRST 1411 Gateway to Credit Math</td>
<td>180</td>
</tr>
<tr>
<td>TRST 1323 Vocabulary</td>
<td>90–180</td>
</tr>
<tr>
<td>TRST 1324 Academic Writing 1</td>
<td>180</td>
</tr>
<tr>
<td>TRST 1422 Math Skills Development 1</td>
<td>180</td>
</tr>
<tr>
<td>Total hours</td>
<td>144–1015</td>
</tr>
</tbody>
</table>

**Academic Skills Intermediate Level 2 Noncredit Certificate**

Goal: A certificate of completion leading to improved employability or job placement opportunities.

Area of Study: Elementary and secondary basic skills.

Certificate Description: The Academic Skills Intermediate Level 2 Certificate of Completion requires successful completion of two courses with a minimum total of 144 hours of instruction. Students earning the Academic Skills Intermediate Level 2 Certificate of Completion Language arts will gain academic skills of listening, speaking, writing, reading and basic computer skills using literature and media. Students will be prepared for academic study in the High School Certificate of Completion program, the next level in the high school diploma program.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td>8–25</td>
</tr>
<tr>
<td>TRST 2321 Academic Reading/Writing 2</td>
<td>180</td>
</tr>
<tr>
<td>TRST 2322 Academic Reading/Writing 2.5</td>
<td>90</td>
</tr>
<tr>
<td>TRST 2421 Math Skills Development 2</td>
<td>90–180</td>
</tr>
<tr>
<td>TRST 2521 Career &amp; Personal Income Management</td>
<td>90</td>
</tr>
<tr>
<td>Total hours</td>
<td>144–56</td>
</tr>
</tbody>
</table>

**Vocational Foundation Skills Noncredit Certificate**

Goal: A certificate of completion leading to improved employability or job placement opportunities.

Area of Study: Workforce preparation classes, in the basic skills of speaking, listening, reading, writing, mathematics, decision-making, and problem solving skills that are necessary to participate in job-specific technical training.

Certificate Description: The Vocational Foundation Skills Certificate of Completion requires successful completion of two courses with a minimum total of 144 hours of instruction. Students earning the Vocational Foundation Skills Certificate of Completion will gain the vocational foundation skills of reading, writing, math and study skills.
necessary for vocational and academic success. Students will be prepared for vocational training programs and employment.

Courses Required for the Certificate of Completion in Vocational Foundation Skills

Courses                                                      Hours
TRST 0038 Orientation to Academic Success .............. 8–25
TRST 2521 Career & Personal Income Management .......... 90
TRST 4600 Pre-Vocational Foundations Skills .......... 45–90
TRST 4601 On the job Communication Skills ............. 54–90
TRST 4602 Literacy Tutor Training ..................... 12
TRST 4603 Graphic Arts Academics ...................... 36–180
TRST 4604 Vocational Foundation Skills .......... 36–180
TRST 4609 Vocational Foundation
Skills-Reading, Writing & Study Skills ............. 22.5
TRST 4644 Vocational Foundation
Skills-Mathematics & Job Readiness ............. 22.5
Total Hours ........................................... 144–712

Announcement of Courses

Noncredit Courses:
Individualized Learning Labs, Self-paced, Open-entry, Multi-level, Ongoing Classes
TRST 0035. Individualized Reading and Writing (54–450 hrs.)
ADVISE: PLACEMENT IN TRST 0035
A basic reading and writing individualized program. Instruction is open-entry and open-exit and self-paced to meet the individual needs of student. Emphasizes comprehension and study skills and will prepare students for further educational and/or job demands.

TRST 0036. Reading/Writing Lab (90–180 hrs)
ADVISE: PLACEMENT IN TRST 0036
Reading, writing, and communication skills to prepare students for high school courses, GED, entry into the workplace, vocational and retraining programs.

TRST 0037. High School Learning Lab (54–810 hrs)
ADVISE: PLACEMENT IN TRST 0037
A competency-based, self-paced lab offering all required high school courses. Subject areas and objectives vary for each student according to previously acquired high school credit and student goal (diploma, test or college preparation, self-enrichment). Emphasis is on the development of independent, critical thinking skills applied to each subject. SCANS competencies are integrated into the curriculum as indicated in specific subject areas.

TRST 0038. Orientation to Academic Success (8–25 hrs)
Tools for students to succeed in the educational setting. Emphasis is on combining use of resources and skills with suggestions for techniques that lead to success in school.

TRST 0039. ABE/Pre-GED Preparation (54–540 hrs)
ADVISE: PLACEMENT IN TRST 0039
Writing, reading and mathematics skills development from intermediate through pre-GED level. Prepares the student to enter GED 0040. Self-paced, individualized or small group instruction. Offered in Spanish at Mission Campus.

TRST 0040. GED Preparation (54–540 hrs)
ADVISE: TRST 0039 OR PLACEMENT IN TRST 0040
Prepares the student to pass the five GED Tests: Writing, Social Studies, Science, Literature, and Mathematics. Individual and/or small group instruction. Offered in Spanish at Mission Campus.

TRST 053. Test Prep: Standardized Tests (8 hrs)
Prepares students for standardized, timed tests. Each course focuses on a single test or subtest. Specific content for each course is determined by the particular test for which students are preparing.

TRST 053E. Test Prep: Ability to Benefit
TRST 053F. Test Prep: CAHSEE English-Language Arts
TRST 053G. Test Prep: CAHSEE Mathematics

Level I
Beginning and Basic Instruction in Reading, Writing, Communicating and Mathematics
TRST 1321. Academic Reading 1 (180 hrs)
ADVISE: ESL LEVEL 7, PLACEMENT IN TRST 1321
A beginning course designed to develop reading, critical thinking skills, and vocabulary development. Oral/written communication and computer literacy skills will also be developed. Formerly TRST 1200.

TRST 1322. Academic Reading and Writing 1.5 (90 hrs)
ADVISE: ESL LEVEL 7, PLACEMENT IN TRST 1322
A beginning course designed to develop reading, critical thinking skills, and paragraph and essay writing. Formerly TRST 1201.

TRST 1323. Vocabulary (90–180 hrs)
PREREQ.: PLACEMENT IN TRST 1323
Designed to increase vocabulary and improve skills. Some basic grammar included. Formerly TRST 1300.

TRST 1324. Academic Writing 1 (180 hrs)
ADVISE: ESL LEVEL 7, PLACEMENT IN TRST 1324
This is a beginning course in paragraph/essay writing. Emphasis is on sentence mechanics. Oral communication, reading, and computer literacy skills will also be developed. Formerly TRST 1301.

TRST 1411. Gateway to Credit Math (90 hrs)
ADVISE: ESL LEVEL 7–8
Basic mathematical skills with whole numbers: reading, writing, and using numbers; addition, subtraction, multiplication and division with whole numbers; number sense and problem solving; reading and writing common and decimal fractions; place value for whole numbers, decimals and currency; units of measure; recognizing geometric shapes. Assists students with Math E1/E3. Formerly TRST 1250.

TRST 1422. Math Skills Development 1 (90–180 hrs)
ADVISE: PLACEMENT IN TRST 1422
Addition, subtraction, multiplication, and division of whole numbers and their application to everyday situations. Introduction to number theory, measurement, basic geometry, and elementary algebra. Formerly TRST 1400.

Level II
Intermediate Instruction in Reading, Writing, Communicating and Mathematics
TRST 2321. Academic Reading/Writing 2 (180 hrs)
ADVISE: TRST 1321 AND/OR TRST 1324, PLACEMENT IN TRST 2321
Language arts competencies developed through listening, speaking, writing, and reading. Using literature, and media, students explore
American culture(s) and society. Reading, writing and basic computer competencies are stressed.
Formerly TRST 2200.

TRST 2322. Academic Reading/Writing 2.5 (90hrs)
*Advisor: TRST 1321 and/or TRST 1324, placement in TRST 2322*
This course is the second level academic reading and writing course with an emphasis on reading expository text and literature as a basis for writing.
Formerly TRST 2201.

TRST 2323. Media Literacy (90 hrs)
Students will learn the basic tools needed to decipher media messages and their impact on personal decision-making and society.
Formerly TRST 3201.

TRST 2421. Math Skills Development 2 (90-180 hrs)
*Advisor: TRST 1422 or Placement in TRST 2421*
Study of decimal and common fractions, percents, basic algebra and geometry. Applications with measurement, graphic representations and development of critical thinking through word problems in functional contexts. Competency based.
Formerly TRST 2400.

TRST 2422. Math Skills Lab (36-180 hrs)
Individualized instruction in basic mathematics including whole numbers, fractions, decimals, percents, measurement, and introduction to algebra and geometry. Applications to life and workplace skills are integrated into this open entry, open exit, and competency based, self-paced course. May be repeated. No prerequisites.
Formerly TRST 0041.

TRST 2521. Career and Personal Income Management (90 hrs)
*Advisor: Placement in TRST 2521*
Career awareness, job search, and job retention. Employment development and income management. Emphasizes necessary reading, oral and written communication, workability, and interpersonal skills needed to become and stay employable. SCANS competencies are integrated into the curriculum. Satisfies high school requirement in Career Awareness.
Formerly TRST 2500.

TRST 2522. Focus on the Future (90 hrs)
*Advisor: Placement in TRST 2522*
Course is divided into six flexible modules emphasizing developing skills for success in academic and vocational pursuits. Students will explore the world of work as well as the world of higher education. They will have opportunities to shadow college students or workers in business and industry. Selected students may apply for internships. Appropriate for all students returning to school. Modules components may be offered separately.
Formerly TRST 3505.

TRST 2533. Health Education (90 hrs)
Student's accesses, analyzes, and applies basic health information that addresses the promotion of physical, mental, emotional, and social dimensions of health.
Formerly TRST 3204.

TRST 2731. The Americas in Film (45 hrs)
Students will study the history of Latin America and the United States using film. Themes such as conformity, rebellion, racism and feminism will be explored.
Formerly TRST 3206.

Level III

Advanced classes in reading, writing, communicating, mathematics and critical thinking in specific High School subjects. Required coursework for the City College of San Francisco High School Diploma Program. Courses also prepare students for subject matter examinations on the GED and for transfer to credit.

TRST 3331. HS Academic Reading/Writing (90 hrs)
*Advisor: TRST 1321 or TRST 1324*
This course is high school level academic reading and writing course with an emphasis on reading expository text and literature as a basis for writing.
Formerly TRST 3200.

TRST 3332. Grammar and Writing (90 hrs)
*Prereq.: TRST 1324 or Placement in TRST 3332*
This course will focus on grammar as a tool to think, write more clearly and explore the ways ideas are connected to make meaning. Students will also go through the steps of the writing process focusing on rewriting to create coherent final drafts.
Formerly TRST 3202.

TRST 3333. Elements of Speech (90 hrs)
This course is designed to give students basic skills to deliver oral presentations that convey clear perspectives and solid reasoning.
Formerly TRST 3203.

TRST 3334. Discovering Literature (90 hrs)
*Prereq.: TRST 3331 or Placement in TRST 3334*
A beginning course designed to develop critical reading and writing skills, and to introduce significant works of literature, studying recurrent patterns and themes.
Formerly TRST 3330.

TRST 3335. Exploring Literature (90 hrs)
*Advisor: TRST 3334 or Placement into TRST 3335*
Students read and respond to culturally significant works of literature and conduct in-depth analyses of recurrent patterns and themes.

TRST 3346. HS English: Literature and Composition (90 hrs)
*Advisor: Placement in TRST 3346*
Students interpret, analyze, and respond to multi-cultural literature, art, and media. Students develop awareness of their own ideological framework and writing style, strengthening their writing, editing, and critical thinking skills.
Formerly TRST 3300.

TRST 3347. HS English Literature: Contemporary American Writers (90 hrs)
*Advisor: Placement into TRST 3347*
Students interpret, analyze, and respond to contemporary American writers: poets, dramatists, and fiction and non-fiction writers from different regions, ethnic backgrounds, and historical circumstances.
Formerly TRST 3301.

TRST 3348. Writing Academic Papers (90 hrs)
*Advisor: TRST 3346, TRST 3347 or Placement into TRST 3348*
This class will focus on the steps used in writing research papers and reports. Students will research and write coherent and focused essays that convey a well-defined.
Formerly TRST 3302.
TRST 3421. High School Algebra 1 A (90 hrs)

Advised: Placement in TRST 3421

A first course in High School Algebra: Operations on integers and rational numbers; properties of rational numbers; exponents and square roots; powers often; scientific notation; constants, variables, and expressions; polynomial expressions; laws of exponents; factoring polynomial expressions; simplifying polynomial and rational expressions.

Formerly TRST 3401.

TRST 3422. High School Algebra 1 B (90 hrs)

Advised: Placement into TRST 3422 or completion of TRST 3421

A second course in Algebra: Properties of equations and inequalities, linear equations, quadratic equations and introduction to graphing.

Formerly TRST 3402.

TRST 3423. Geometry 1A (90 hrs)

Advised: TRST 3421

Develop the ability to construct formal, logical arguments and proofs in geometric settings through the exploration of plane and solid geometry. Measure, draw, analyze and compare shapes that can be drawn on a flat surface called a plane, and use those ideas to construct solid forms.

Formerly TRST 3403.

TRST 3424. Geometry 1B (90 hrs)

Advised: TRST 3423 or placement in TRST 3424

Further development of the skills mastered in TRST 3423, Geometry 1A. Aside from learning the skills and concepts of angles, triangles, polygons, polyhedra and spheres, students will develop their ability to construct formal, logical arguments and proofs in geometric settings and problems.

Formerly TRST 3404.

TRST 3531. HS United States History 1 (90 hrs)

Advised: Placement in TRST 3531

U.S. History up to the Civil War, emphasizing the influence of past events on the present. Analysis of historical cause and effect from political, social, and economic viewpoints.

Formerly TRST 3500.

TRST 3532. High School U.S. History 2 (90 hrs)

A brief review covering from the Progressive Era to Contemporary American Society, emphasizing the influence of past events on the present. Analysis of historical cause and effect from different political, social, economic and cultural viewpoints.

Formerly TRST 3501.

TRST 3533. Civics (90 hrs)

Advised: Placement in TRST 3533

The Constitution, the rights and responsibilities of citizens, elections, and the party system. Introduces students to a practical understanding of the law.

Formerly TRST 3502.

TRST 3534. Economics (90 hrs)

Advised: Placement in TRST 3534

Basic economic principles and their applications to the free enterprise system. Economic concepts applied to students' personal financial decisions.

Formerly TRST 3503.

TRST 3535. Modern World History (90 hrs)

Advised: Placement in TRST 3536

A study of the major turning points that shaped the modern world, from the late eighteenth century through the present, including the cause and course of two world wars.

Formerly TRST 3506.

TRST 3536. Social Justice (90 hrs)

Students will examine issues of social, economic and environmental justice in the United States in order to develop an understanding of patterns of injustice and methods of obtaining justice. They may also examine similar patterns in the international community.

Formerly TRST 3508.

TRST 3631. Physical Science 1 (90 hrs)

Prereq.: Placement in TRST 3631

Study of how people are influenced by the physical world. Includes climate, the ocean, natural events, natural resources, the earth's relationship to the sun and moon, and the effects of population on the earth. Current events analyzed using course concepts.

Formerly TRST 3504.

TRST 3642. High School Biology (90 hrs)

A general introduction to cell structure and functions, the cell cycle, principles of molecular and organism genetics.

Formerly TRST 3602.

TRST 3643. High School Ecology (90 hrs)

An introductory course in ecological concepts including: structure and function of the biosphere; ecological fluctuations regarding populations, biodiversity, biotic and abiotic factors, trophic relationships, biochemical/nutrient cycles, and examination of current conservation practices.

Formerly TRST 3603.

TRST 3644. High School Physics (90 hrs)

Advised: TRST 3422

Quantitative and qualitative study of forces, motion, and energy including linear, non-collinear, and fluid forces; motion at constant speed; relations between time, distance, and speed; transverse and longitudinal waves; thermal energy, specific heat, and heat of fusion; potential and kinetic energy; and the law of conservation of energy.

Formerly TRST 3605.

TRST 3721. Visual Arts (90 hrs)

Students view reproductions and original works of art in order to develop their perceptual skills, learn art elements and principles of design, and learn about the historical and cultural context of visual art. They produce their own works of visual art and participate in a critique of all student work.

Formerly TRST 3701.

TRST 3732. Comparative Religion (90 hrs)

Focusing on the evolution of Eastern religions from the starting point of Hinduism and of Western religions from the starting point of Judaism, students study the historical development and core beliefs of six of the world's religions: Hinduism, Taoism, Buddhism, Judaism, Christianity and Islam.

Formerly TRST 3702.
Vocationally Related Courses

Prepare for Employment, Entry Into Job Training Programs, or Further College Study

TRST 4600. Pre-Vocational Foundation Skills (45-90 hrs)
*ADVISOR: PLACEMENT IN TRST 4600*
A competency based course focusing on the basic skills and personal qualities needed to succeed in the entry-level workplace. May be offered bilingually in Spanish and/or in other languages.

TRST 4601. On the Job Communication Skills (54-90 hrs)
*ADVISOR: PLACEMENT IN TRST 4601*
Listening and responding skills and other interpersonal communication skills needed for success on the job. Includes resume writing and interview practice, and introduction to on the job work standards and employer expectations. Special emphasis on the hospitality industry.

TRST 4602. Literacy Tutor Training (12 hrs)
Provides instructional techniques in basic reading and writing including demonstration and practice. Includes student assessment, progress evaluation and choosing instructional materials. Designed for volunteers and paraprofessionals who will be tutoring adult students in literacy skills.

TRST 4603. Graphic Arts Academics (36-180 hrs)
Academic and vocational instruction that offers a study of mathematics, science and vocabulary as it relates to the field of graphic communications. Prepares students for entry into the Graphic Communications program.

TRST 4604. Vocational Foundation Skills (36-180 hrs)
*ADVISOR: TRST 4603 OR PLACEMENT IN TRST 4604*
Competency-based course designed to support student academic success in vocational programs. Focus is on the foundation skills for reading, writing, math and study skills. Course may be repeated.

TRST 4640. Vocational Foundation Skills-Reading, Writing, and Study Skills (22.5 hrs)
Competency-based course designed to support student academic success in vocational programs. Focus is on the foundation skills of reading, writing, and study skills necessary for vocational and academic success. May be offered bilingually in Spanish and/or in other languages. Course may be repeated.

TRST 4644. Vocational Foundation Skills-Mathematics and Job Readiness (22.5 hrs)
Competency-based course designed to support student academic success in vocational programs. Focus is on the foundation skills of mathematics and job readiness skills necessary for personal time and income management. May be offered bilingually in Spanish and/or in other languages. Course may be repeated.

Women’s Studies

Office: Cloud 402C
Phone Number: (415) 452-7025
Web Site: www.ccsf.edu/wmnstd

Announcement of Curricula

Women’s Studies Major (AA)
The Associate of Arts in Women’s Studies is a two-year program of study with courses that fulfill graduation requirements for the college and transferable requirements to many CSU, UC and private universities. Through departmental core courses and interdepartmental courses, students focus on women’s experiences taught from a feminist perspective.

Learning Outcomes

Upon completion of this degree, students will be able:
- Examine the process of gender socialization
- Analyze sexism in conjunction with other forms of institutionalized oppression such as racism, homophobia/heterosexism, classism, ableism, ageism, transphobia and ageism/adultism.
- Distinguish women’s experiences across cultures
- Examine women’s political, historical and artistic achievements
- Apply strategies for improving communication
- Promote healthy behaviors in their personal, social, and work lives

Courses Required for the Major in Women's Studies

<table>
<thead>
<tr>
<th>Courses Required for the Major in Women’s Studies</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOMN 25 Introduction to Women’s Studies: Feminism Demystified</td>
<td>3</td>
</tr>
<tr>
<td>Three units from the following Behavioral Sciences Courses:</td>
<td></td>
</tr>
<tr>
<td>PSYC 25 Psychology of Sex Differences</td>
<td>3</td>
</tr>
<tr>
<td>SOC 25 Sex and Gender in American Society</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 25 Culture, Gender, and Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>Three units from the following Social Sciences Courses:</td>
<td></td>
</tr>
<tr>
<td>ECON 25 Women in the Economy</td>
<td>3</td>
</tr>
<tr>
<td>HIST 12A U.S. Women’s History (pre-colonial to the 1800s)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 12B U.S. Women’s History (1800s to the present)</td>
<td>3</td>
</tr>
<tr>
<td>Six units from the following Humanities Courses:</td>
<td></td>
</tr>
<tr>
<td>HUM 25 Women in the Arts</td>
<td>3</td>
</tr>
<tr>
<td>ART 108 Women through Art History</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 37 African American Women in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 55 Gay and Lesbian Literature Survey</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 57 Women and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 58A Contemporary Women Writers and Poets</td>
<td>3</td>
</tr>
<tr>
<td>WOMN 10 Women and Film</td>
<td>3</td>
</tr>
<tr>
<td>WOMN 20 Her/His/Outstories</td>
<td>3</td>
</tr>
<tr>
<td>BCST 105 Gender and Mass Media</td>
<td>3</td>
</tr>
<tr>
<td>Three units from the following Diversity Focus Courses:</td>
<td></td>
</tr>
<tr>
<td>AFAM 60 The African Woman in the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>ASAM 35 Asian American Women</td>
<td>3</td>
</tr>
<tr>
<td>LALS 10 Latinas in the U.S.: Voces (Voices)</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 21 Issues in Lesbian Relationships</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 30 Issues in the Lesbian Community</td>
<td>3</td>
</tr>
<tr>
<td>IDST 80A Diversity and Social Justice: Racism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80C Diversity and Social Justice: Sexism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80D Diversity and Social Justice: Heterosexism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80E Diversity and Social Justice: Ableism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80F Diversity and Social Justice: Classism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80G Diversity and Social Justice: Transphobia</td>
<td>5</td>
</tr>
<tr>
<td>IDST 81A Diversity and Social Justice: Ageism and Adultism</td>
<td>1</td>
</tr>
<tr>
<td>IDST 81B Diversity and Social Justice: Anti-Semitism/Anti-Arabism</td>
<td>1</td>
</tr>
<tr>
<td>IDST 70 Architecture and Diversity</td>
<td>3</td>
</tr>
<tr>
<td>Three units from the following Life-Work Focus Courses:</td>
<td></td>
</tr>
<tr>
<td>HLTH 25 Women’s Health Issues</td>
<td>3</td>
</tr>
</tbody>
</table>
Women’s Studies  405

HLTH 26 Women’s Health: Advanced Issues ............3
WOMN 54 The Politics of Sexual Violence ..................3
WOMN 55 Ending Sexual Violence: Peer Education ........3
SUPV 236 Women Leaders at Work .....................3
PSYC 14 Psychology of Shyness and Self-Esteem ..........1
PSYC 15 Assertive Behavior ..................................1
PSYC 17 Psychology of Eating, Food, and Weight .........1
HLTH 111 Women, Incarceration, and Health ............1
LBCS 78A Women’s Employment Issues: Historical Survey .........................................................1
LBCS 78B Women’s Employment Issues: Current Issues .................................................................1
LBCS 78C Women’s Employment Issues: Special Problems of Selected Occupations ......................1
Total Units ......................................................... 21

Students are encouraged to take English 1A or Speech 1A with a Women’s Studies focus.

Sexual Health Educator Certificate

The curriculum for the Sexual Health Educator Certificate will train students as paraprofessionals in safe and healthy sexuality including violence prevention and intervention, HIV/STI prevention, and the promotion of mature intimate relationships.

The integrated program offers students an opportunity to identify various markers of sexual health, which will enable them to promote healthy and safer sexual relationships in their client populations. They will be able to teach others to negotiate sexual situations with more confidence, knowing their limits, recognizing danger zones, assessing risk factors, and respecting their own and their partners’ needs.

Through academic preparation, practical skills training, and service to the CCSF community, certificate candidates learn to

a. provide accurate, timely information about safe and healthy sex practices
b. apply behavior change theory to real-life situations
c. offer appropriate agency and clinic referrals
d. provide general sexual health advice sensitive to diverse cultures, genders, and sexual orientations
e. identify and address signs to look for in an abusive personality, strategies for leaving an abusive relationship, and rape prevention techniques, as well as characteristics of a healthy, mature, non-violent intimate relationship
f. recognize and address co-factors which increase the risk of HIV/STI infection, such as alcohol and drug use, sexual abuse and assault, low self-esteem and poor communication skills
g. create and produce sexual health education events, such as interactive presentations, health fairs, guest lectures, video screenings, and publicity campaigns

Requirements for the Certificate of Achievement. The certificate requires completion of 15 units, which can be completed in one semester. Each course must be completed with a final grade of C or higher or Pass.

Credit toward Graduation. Credit earned to obtain the Certificate of Achievement satisfies the G2 and H2 graduation requirements, and coursework is transferable to the California State University.

Credit toward Community Health Worker Certificate. Three of the courses required for the Sexual Health Educator Certificate meet the elective requirement for the CHW program.

Courses Required for the Certificate of Achievement in Sexual Health Educator

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOMN 54 The Politics of Sexual Violence</td>
<td>3</td>
</tr>
<tr>
<td>WOMN 55 Ending Sexual Violence: Peer Ed</td>
<td>3</td>
</tr>
<tr>
<td>IDST 17 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 67 HIV/STI Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Elective Courses (4 units from the following courses)</td>
<td></td>
</tr>
<tr>
<td>SOC 25 Sex and Gender in American Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 35 Sex, Marriage, and Family Relationships</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 9 Psychology of Stress</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 14 Psychology of Shyness and Self-Esteem</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 15 Assertive Behavior</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 17 Psychology of Eating, Food, and Weight</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 25 Psychology of Sex Differences</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 20 LGBT Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 25 Culture, Gender, and Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 64 Health Education and Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 68 HIV/STI Outreach Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 97 Stress Reduction: Care of the Soul in the World</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 21 Issues in Lesbian Relationships</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 24 Gay Male Relationships</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 60 Psychology of Sexual Minorities</td>
<td>3</td>
</tr>
<tr>
<td>IDST 80-81 Diversity and Social Justice</td>
<td>5-1</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</td>
</tr>
</tbody>
</table>

Announcement of Courses

General Information

Women's Studies courses offer students an understanding of gender socialization and women's experiences across cultures; knowledge of women's political, historical, and artistic achievements; and strategies for improving communication and promoting healthy behaviors in our personal, social, and work lives.

Credit, Degree Applicable Courses:

WOMN 10. Women and Film (3) Lec-3 P/NP available
A brief history of the development of feminist film studies. Once outlined, this approach is applied to Hollywood cinema to demonstrate how movies both reflect and shape notions about women and their roles in society. Significant examples of films made by women in resistance to patriarchal images are also screened, accompanied by readings by prominent feminist theorists. CSU/UC

WOMN 20. Her/His/Ourstories (3) Lec-3 P/NP available
Advice: ENGL 90 or ESL 150 or Placement in ENGL 92 or ESL 160 Using oral traditions, dialogue, conversation, and storytelling, the course offers strategies for researching, recognizing, respecting, and retelling individual/community stories to enhance life and career/job choices. Overview of documentation topics and processes: negotiation, protocol, and ethics of retelling stories, as well as specific skills, such as formatting, layout, copyediting, and working with print/multimedia design consultants. Emphasis on female storytelling traditions. CSU

WOMN 25. Introduction to Women's Studies: Feminism Demystified (3) Lec-3 P/NP available
Introduction to the origins, purpose, subject matter, and methods of Women's Studies and to feminist perspectives on a range of
American women. Field trip may be required. CSU/UC

WOMN 51-52-53. Current Topics in Women's Studies (1-2-3)
Lec-1,2,3
Repeat: if no subject repeat
An interdisciplinary approach to current issues and concerns of women in a variety of areas, such as health, history, and sexuality. CSU (UC upon review)

WOMN 54. Politics of Sexual Violence (3)
Lec-3, field trips
P/NP available
An examination of political, social, and psychological causes of sexual violence, its connection to other hate crimes, and strategies for transforming a violent culture through prevention education, with a special emphasis on the healing function of creative expression. Field project required. CSU
Formerly: IDST 54

WOMN 55. Ending Sexual Violence: Peer Education (3)
Lec-3, field trips
P/NP available
Education and skills training in peer education to promote healthy sexual relationships by reducing sexual violence, specifically intimate partner violence and acquaintance rape. Peer education activities, geared toward ending sexual violence, include presentations to CCSF and high school students and volunteer work in community-based organizations. Field project required. CSU
Formerly IDST 55

AFAM 60. The African American Woman in the United States (3)
Lec-3
The Black woman in America from 1619 to the present. Particular emphasis on contributions she has made to the society. CSU/UC

ANTH 25. Culture, Gender and Sexuality (3)
Lec-3
P/NP available
An examination of the cross-cultural and historical factors that determine how women and men understand and act out their gender and sexuality. Focus on women's role in non-western cultures such as Native American, Moslem, African, and Asian societies. Various aspects of culture which affect both female and male status, such as economics, religion, family and marriage, and sexual practices, will be examined in detail. CSU/UC

ART 108. Women through Art History (3)
Lec-3, field trips
Note: The study of art history requires college-level reading comprehension.
A study of women in art, investigating their place in society as artists and patrons, as well as subjects in art. The course will introduce women from both European and non-European cultures from prehistory to the present. All art will be discussed from both a critical and historical perspective, with regard to a social context and formal visual elements. CSU/UC

ASAM 35. Asian American Women (3)
Lec-3
Examination of the lives of Asian American women, using a multi-disciplinary approach which includes literature, poetry, history, political science, anthropology and sociology. Readings, papers and discussions on the social, cultural, political, and economic conditions facing Asian American women. Field trip may be required. CSU/UC

BCST 105. Gender and Mass Media (3)
Lec-3, field trips
An exploration of the mass mediated messages—radio, television, film, print, and the Internet—and how they influence and define gender roles, with particular emphasis on how women are represented. A critique of roles given to each gender. An update on opportunities for women in each of the mainstream and alternative media industries. CSU

ECON 25. Women in the Economy (3)
P/NP available
An introduction to women's roles in the U.S. economy, including varying experiences related to race, ethnicity, and class. Examines women's occupations and earnings; women's household activities and how they affect paid work; women as consumers; public policy regarding women's work and poverty; and current special topics. Applies and contrasts mainstream political economic theories within a feminist perspective. CSU/UC

ENGL 1A. University-Parallel Reading and Composition (3)
Lec-3
Prereq.: ENGL 96 or placement in ENGL 1A (through CCSF English Placement Testing or the English Placement Test Waiver process)
Some sections of ENGL 1A are taught from a feminist perspective. For further information about these sections, see the Chair of Women's Studies.
Practice in reading and writing expository prose. CSU/UC

ENGL 37. African American Women in Literature (3)
Lec-3
P/NP available
An intensive examination of the literary efforts of African American women writers beginning with the Slave Narratives to the present. CSU/UC

ENGL 55. Survey of Gay and Lesbian Literature (3)
Lec-3
Prereq.: ENGL 96 or placement in ENGL 1A
A survey of gay and lesbian literature drawing on examples that present material relevant to present day experience. CSU/UC

ENGL 57. Women and Literature (3)
Lec-3, field trips
P/NP available
Prereq.: ENGL 96 or placement in ENGL 1A
Literature by women: reading, discussion, and analysis of literature written in English by women over the last four hundred years. Emphasis on the nineteenth and early twentieth century novel, including some poetry and drama; classical as well as new and re-discovered authors. CSU/UC

ENGL 58A. Contemporary Women Writers and Poets (3)
Lec-3, field trips
P/NP available
Prereq.: ENGL 96 or placement in ENGL 1A
Contemporary women writers and poets: reading, discussion, and analysis of fiction, poetry, and drama written in English by contemporary women from diverse cultural and ethnic backgrounds. Works in translation may be included. CSU/UC
ENGL 96. Academic Writing and Reading (3)
Lec-3
Prereq.: ENGL 93 or 94, or placement in ENGL 96
Some sections of ENGL 96 are taught from a feminist perspective. For further information about these sections, see the Chair of Women’s Studies.
College-level training and practice in critical reading and in writing argumentative essays. Emphasis is on reading and writing analytically and developing research and documentation skills.

HLTH 25. Women’s Health Issues (3)
Lec-3, field trips P/NP available
Advise: ESL 150 or ENGL 90 or Placement in ESL 160 or ENGL 92
A health class emphasizing the empowerment of each woman in the pursuit of her physical, mental, social and political health. Aimed at meeting the needs of women of diverse ethnic backgrounds and sexual orientations. Topics include: breast self-exam, menstrual health, reproductive management, motherhood, AIDS and STIS, menopause, violence against women, stress, nutrition, exercises, alternative health, and more. Course work involves research on personal health concerns. CSU/UC

HLTH 26. Women’s Health: Advanced Issues (3)
Lec-3, field trips
Advise: HLTH 25, 27 or 53; and Eligible for ENGL 93 or 94
In-depth analysis of women’s health issues chosen for particular relevance to CSSP students. Focus on public policy and advocacy, emerging trends and careers in women’s health, access to diverse health care modalities, and current controversies. CSU

HLTH 111. Women, Incarceration and Health (1)
Lec-1 P/NP available
Students will gain an understanding of the health impacts of incarceration on women. The promotion of positive health outcomes for formerly incarcerated women will be explored. CSU

HIST 12A-12B. United States Women’s History (3-3)
Lec-3 P/NP available
An in-depth study of the experiences, roles, and contributions of women in the political, economic, social and cultural developments of the United States. CSU/UC

HIST 12A. From the pre-colonial period to the end of the Civil War.

HIST 12B. From the end of the Civil War to the present.

HUM 25. Women in the Arts (3)
Lec-3, field trips P/NP available
Examination of the creative process by studying the history of women in the arts from pottery, ritual chants, and story telling to painting, sculpture, jazz, novels, and performance art. Recognized "greats" as well as anonymous women of diverse cultural and ethnic backgrounds. Films, tapes, slides and a field trip to complement class lectures and discussions. CSU/UC

IDST 23. African American Women in the Creative Arts (3)
Lec-3 P/NP available
An intensive examination of the creative efforts of African American women artists and writers from 1753 to the present. CSU/UC

IDST 70. Architecture and Diversity (3)
Lec-3, field trips P/NP available
An introductory critical review of the building and design heritage of women all over the world and of indigenous people’s architecture in Africa and Latin America from tribal dwellings to monumental structures, followed by a series of architectural and engineering studios introducing students to basic building and design skills: developing a project, drawing a floor plan, building an architectural model, using drafting tools and computers. Emphasis on hands-on skills. CSU

IDST 80-81. Diversity and Social Justice (.5-1)
Lec-.5,1 P/NP available
A series of courses exploring specific forms of social oppression in the United States and social justice interventions. CSU

LALS 10. Latinas in the U.S.: Voces (Voices) (3)
Lec-3, field trips P/NP available
The lives and experiences of Latinas living in the U.S. The effects that their experiences have on self-esteem. Multi-disciplinary discussion and analysis of major social and cultural issues and themes. CSU/UC

LBCS 78A-78B-78C. Women’s Employment Issues (1-1-1)
Lec-1 P/NP available
These courses may be taken in any sequence
Repeat: max. 3 units if no subject repeat

LBCS 78A. A survey of women’s work in the past and present. Examines the historical evolution of women’s work lives, the impact of family structure, prevailing notions of “women’s place,” labor market opportunities, and trade union organizations. CSU
Formerly LABR 78A.

LBCS 78B. Current issues facing women workers will be discussed. Topics include pay equity, legal rights of women workers, sexual harassment, combining work and family responsibilities and women’s employment issues. CSU
Formerly LABR 78B.

LBCS 78C. Focus on special problems of selected occupational groups such as clerical workers, health workers and women in non-traditional jobs. CSU
Formerly LABR 78C.

LGBT 21. Issues in Lesbian Relationships (3)
Lec-3 P/NP available
Exploration of the history, culture, and psychological dynamics of lesbian relationships. Emphasis on the central issues of intimacy and commitment as well as the sociological effect of homophobia and minority status within the lesbian dyad. CSU
Formerly GLST 21

LGBT 30. Issues in the Lesbian Community (3)
Lec-3 P/NP available
Historical analysis and examination of issues central to the development of lesbian identity, culture, and relationships; exploration and debate of current controversial issues in the political, social, and personal realms of lesbian experience. CSU/UC
Formerly GLST 30
MATH 40. Elementary Algebra (3)
Lec-5
Prereq.: MATH E1 or E or E3 or EX or MATH 35; OR Placement in MATH 40
Some sections emphasize how society shapes women's views toward math. Use of math examples related to women's lives. For further information about these courses, see the Chair of Women's Studies.
Fundamental operations on integers, rational numbers, polynomials, and algebraic expressions; linear and quadratic equations; linear inequalities; integer exponents and square roots; graphing; systems of equations; and applications.

SPCH 1A. Elements of Public Speaking (3)
Lec-3
Prereq.: ENGL 96
Some sections are taught from a feminist perspective. For further information about these sections, see the Chair of Women's Studies.
Mastery of the research, organization and delivery of extemporaneous speeches. Focus on rhetorical theory, critical audience analysis, speech outlining, evidence testing, and use of visual aids. CSU/UC

SUPV 236. Women Leaders at Work (3)
Lec-3
P/NP available
This course explores women's leadership, management, and communication styles and the vision and values women leaders bring to an effective environment in business, education, government and community organizations. Examines strategies for developing and encouraging skills that enable and allow women leaders and managers to succeed. CSU

Noncredit Courses:
WOMN 2500. Issues of Concern to Women (16 ea.)
A series of courses addressing skills focused on women's needs, such as self-defense, spatial visualization, and money management. These courses are designed to introduce students to skills they may lack due to social oppression. The attainment of these skills can boost self-esteem, facilitating the pursuit of life and career goals.

WOMN 2501. Self-Defense
WOMN 2502. Spatial Visualization

Word Processing
For noncredit courses in word processing see the Office Occupations course listings of the Business Department in this section of the Catalog. Also see credit courses in the Business Department listings in this section of the Catalog.
Compliance with College Rules and Regulations

Students and staff are expected to comply with the rules and regulations published in this catalog; and with the official notices published in the College newspaper, The Guardsman, or posted on official bulletin boards.

Unlawful Discrimination and Harassment Policy

The policy of the San Francisco Community College District is to provide an educational and employment environment in which no person shall be unlawfully denied full and equal access to, the benefits of, or be unlawfully subjected to discrimination on the basis of ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability in any program or activity that is administered by, funded directly by, or that receives any financial assistance from the State Chancellor or Board of Governors of the California Community Colleges.

Employees, students, or other persons acting on behalf of the District who engage in unlawful discrimination as defined in this policy or by state or federal law may be subject to discipline, up to and including harassment.

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment.

The policy of the San Francisco Community College District is to provide an educational and employment environment free from unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment.

1. Having any mental or psychological disorder or condition, such as mental retardation, organic brain syndrome, emotional or mental illness, or specific learning disabilities, that limits a major life activity. For purposes of this section:
   - “Limits” shall be determined without regard to mitigating measures, such as medications, assistive devices, or reasonable accommodations, unless the mitigating measure itself limits a major life activity.
   - A mental or psychological disorder or condition limits a major life activity if it makes the achievement of the major life activity difficult.
   - “Major life activities” shall be broadly construed and shall include physical, mental, and social activities and working.

2. Any other mental or psychological disorder or condition not described in paragraph 1 that requires specialized supportive services.

3. Having a record or history of a mental or psychological disorder or condition described in paragraph (1) or (2), which is known to the District.

4. Being regarded or treated by the District as having, or having had, any mental condition that makes achievement of a major life activity difficult.

5. Being regarded or treated by the District as having, or having had, a mental or psychological disorder or condition that has no present disabling effect, but that may become a mental disability as described in paragraph (1) or (2).
   - “Mental disability” does not include sexual behavior disorders, compulsive gambling, kleptomania, pyromania, or psychoactive substance use disorders resulting from the current unlawful use of controlled substances or other drugs.

“Physical disability” includes, but is not limited to, all of the following:

1. Having any physiological disease, disorder, condition, cosmetic disfigurement, or anatomical loss that does both of the following:
   - “Limits” shall be determined without regard to mitigating measures such as medications, assistive devices,
prosthetics, or reasonable accommodations, unless the
mitigating measure itself limits a major life activity.

(ii) A physiological disease, disorder, condition, cosmetic
disfigurement, or anatomical loss limits a major life
activity if it make the achievement of the major life
activity difficult.

(iii) "Major life activities" shall be broadly construed and
includes physical, mental, and social activities and
working.

(2) Any other health impairment not described in paragraph (1)
that requires specialized supportive services.

(3) Having a record or history of a disease, disorder, condition,
cosmetic disfigurement, anatomical loss, or health impair-
ment described in paragraph (1) or (2), which is known to the
District.

(4) Being regarded or treated by the District as having, or having
had, any physical condition that makes achievement of a
major life activity difficult.

(5) Being regarded or treated by the District as having, or having
had, a disease, disorder, condition, cosmetic disfigurement,
apotomical loss, or health impairment that has present
disabling effect but may become a physical disability
as described in paragraph (1) or (2).

(6) "Physical disability" does not include sexual behavior dis-
orders, compulsive gambling, kleptomania, pyromania, or
psychoactive substance use disorders resulting from the cur-
rent unlawful use of controlled substances or other drugs.¹

• "District" means the San Francisco Community College District
or any District program or activity that is funded directly by the
state or receives financial assistance from the state. This includes
any organization associated with the District or its college(s) that
receives state funding or financial assistance through the District.

• "Responsible District Officer" means the officer identified by
the District to the State Chancellor's Office as the person responsible
for receiving complaints filed pursuant to Title 5, section 59328,
and coordinating their investigation.

• "Sexual harassment" is unlawful discrimination in the form of
unwelcome sexual advances, requests for sexual favors, and other
verbal, visual, or physical conduct of a sexual nature, made by
someone from or in the workplace or in the educational setting,
and includes but is not limited to:

(1) Making unsolicited written, verbal, physical, and/or visual
contacts with sexual overtones. (Examples of possible sexual
harassment that appear in a written form include, but are not
limited to: suggestive or obscene letters, notes, invitations.
Examples of possible verbal sexual harassment include, but are not
limited to: leering, gestures, display of sexually aggressive
objects or pictures, cartoons, or posters.)

(2) Continuing to express sexual interest after being informed
that the interest is unwelcomed.

(3) Making reprisals, threats of reprisal, or implied threats of
reprisal following a rebuff of harassing behavior. The follow-
ing are examples of conduct in an academic environment
that might be found to be sexual harassment: implying or
actually withholding grades earned or deserved; suggesting a
poor performance evaluation will be prepared; or suggesting a
scholarship recommendation or college application will be
denied.

(4) Engaging in explicit or implicit coercive sexual behavior
within the work environment which is used to control, influ-
ence, or affect the employee's career, salary, and/or work
environment.

(5) Engaging in explicit or implicit coercive sexual behavior
within the educational environment that is used to control,
influence, or affect the educational opportunities, grades, and/
or learning environment of a student.

(6) Offering favors or educational or employment benefits, such
as grades or promotions, favorable performance evaluations,
favorable assignments, favorable duties or shifts, recommen-
dations, reclassifications, etc., in exchange for sexual favors.

(7) Awarding educational or employment benefits, such as grades
or duties or shifts, recommendations, reclassifications, etc., to
any student or employee with whom the decision maker has a
sexual relationship and denying such benefits to other students
or employees.

• "Sexual orientation" means heterosexually, homosexuality,or
bisexuality.

• "Unlawful discrimination" means any complaint of unlawful dis-
crimination based on a category protected under Title 5, section
59300, including sexual harassment, harassment based on a pro-
tected group status as set forth in this Policy, and retaliation.
In addition, the district will accept complaints of discrimination or
harassment on the additional basis prohibited by district policy.

• Harassment in the form of hostile environment harassment on the
basis of any protected category is also prohibited discrimination.

Retaliation
It is unlawful for anyone to retaliate against someone who files an
unlawful discrimination complaint, who refers a matter for investiga-
tion or complaint, who participates in an investigation of a complaint,
who represents or serves as an advocate for an alleged victim or alleged
offender, or who otherwise furthers the principles of this unlawful dis-
crimination policy.

The compliance officer/coordinator for purposes of this policy is the
District Affirmative Action Officer, 31 Gough Street, San Francisco,
CA 94103, (415) 241-2281. Information concerning the provisions
of the applicable laws and complaint procedures is available from the
District Affirmative Action Officer.

¹ If the federal statutes cited herein would result in broader protection of the
civil rights of individuals then that broader protection or coverage shall be
denied.

² If the Americas with Disabilities Act of 1990 definitions would result in
broader protection of the civil rights of individuals with a mental or physi-
cal disability, or would include any medical condition not included within
these definitions, then that broader protection or coverage shall be deemed
incorporated by reference into, and shall prevail over conflicting provi-
sions of Title 5, section 59300, as cited in this Policy.

³ Ibid

Campus Attire
Students are urged to dress appropriately everywhere on the campus at
times. Instructors in special areas (i.e., gymnasiums and laborato-
ries) may require students to wear particular clothing for suitability or
to meet health and/or safety regulations.

Students with Disabilities
Students with disabilities have the same legal entitlement as any other
student. Both Section 504 of the Rehabilitation Act of 1973 and the
Americans with Disabilities Act (ADA) prohibit discrimination on the basis of disability of otherwise qualified persons in programs and/or activities at this institution. It is the policy of the SFCCD to operate its programs and services so that they are readily accessible to students with disabilities. Reasonable accommodations (academic adjustments and auxiliary aides) are arranged when needed for students with verified disabilities. For further information call the Disabled Students Programs and Services (DSPS) at 452-5481 or 452-5451 (TDD).

Adjustment of Graduation Requirements for Students with Disabilities
Substitution Policy
It is the policy of CCSF to provide equal educational opportunities for students with disabilities in accordance with state and federal law and regulations including the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, and Title 5 of the California Administrative Code. Pursuant to Title 5, Sections 56000-56076, the District has developed the DSPS to assist students with disabilities in securing appropriate instruction, academic accommodations and auxiliary aids. It is the intent of the District that such individuals be served by regular classes and programs whenever possible. To that end, students with disabilities shall be admitted to courses and programs and matriculate through such courses and programs on an equal basis with all other students. To ensure equality of access for students with disabilities, academic accommodations and auxiliary aids shall be provided to the extent necessary to comply with state and federal law and regulations. For each student, academic accommodations and auxiliary aids shall specifically address those functional limitations of the disability which adversely affect equal educational opportunity. When the severity of the disability of an otherwise qualified student precludes successful completion of a course required for graduation from CCSF, despite an earnest effort on the part of the student to complete the course and despite provision of academic accommodations and/or auxiliary aids, a course substitution shall be considered. The District will maintain specific criteria and procedures to implement the policy. DSPS should be contacted (452-5481) for additional information regarding course substitutions.

Drug Usage
City College is a Drug-Free College.
The campuses of the City College of San Francisco are drug-free. The College does not allow the unlawful possession, use, or distribution of illegal drugs and alcohol by students on its property or as a part of its activities. The College will discipline students according to local, state, and federal law. Discipline includes student expulsion and referral for prosecution.

For information about health and legal dangers of using alcohol and/or drugs you can go to the following places:
- Students at the Ocean Campus may visit the Student Mental Health Services in new Student Health Center or call 239-3110 or 239-3148.
- Students are also encouraged to contact the Counseling Department in Conlan Hall, Room 205, or call for an appointment at 239-3296.
- Students at other campuses must make an appointment to see their counselor on the campus at which they are taking classes. If you need assistance in contacting your counselor, please use the general telephone number of that campus.

Petitions for Waiving Regulations
A student may petition the Dean of Student Affairs, Conlan Hall, Room 106, to waive a local college regulation.

Privacy of and Access to Student Records
City College of San Francisco protects the privacy of student records and maintains the right of students to inspect and review their records. City College has established guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Should the College be unable to resolve the complaint of a student concerning the accuracy or clarity of the student's records, the student has the right to file a complaint with The Family Educational Rights and Privacy Act Office of the U.S. Department of Education.

Privacy of Student Records
The California community college student has a legal right to privacy of records. A student record is defined as "any item of information directly related to an identifiable student...which is maintained by a community college..." However, applicable law provides for certain exceptions. Appropriate District employees are authorized to collect only that information which is relevant to a student's admission, registration, academic history, career, student benefits and services, extracurricular activities, counseling and guidance, discipline or matters related to student conduct.

In addition to restrictions on the collection of information about students, there are significant restrictions on the release of student information. Except under limited circumstances, District employees do not have the authority to release student records except to the student. In general, District employees should consider information they acquire about students, in their capacity as employees, to be confidential information.

In any area where records are filed, we maintain a student record log to record who asked for and received student information in accordance with applicable law. In each area, a dean or his/her designee is responsible for maintaining the student record log. A student record log is maintained in the following areas:

Kind of Record - Log Maintained By

Admissions and Records - Dean of Admissions and Records
Counseling Records - Dean of Counseling
Disabled Student Records - Dean of the School of Behavioral and Social Sciences
Financial Aid Information - Dean of Financial Aid
Student Discipline, Complaints, Appeals - Associate Dean of Student Advocacy, Rights and Responsibilities
Student Health Records - Associate Dean of Student Health Services.

Family Educational Rights and Privacy Act (FERPA)
The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. Students to whom the rights have transferred are "eligible students."
1. Parents or eligible students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for parents or eligible students to review the records. Schools may charge a fee for copies.

2. Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the parent or eligible student then has the right to a formal hearing. After the hearing, if the school still decides not to amend the record, the parent or eligible student has the right to place a statement with the record setting forth his or her view about the contested information.

3. Generally, schools must have written permission from the parent or eligible student in order to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):
   - School officials with legitimate educational interest;
   - Other schools to which a student is transferring;
   - Specified officials for audit or evaluation purposes;
   - Appropriate parties in connection with financial aid to a student;
   - Organizations conducting certain studies for or on behalf of the school;
   - Accrediting organizations;
   - To comply with a judicial order or lawfully issued subpoena;
   - Appropriate officials in cases of health and safety emergencies; and
   - State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools may disclose, without consent, "directory information" such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools must tell parents and eligible students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify parents and eligible students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school.

For additional information or technical assistance, you may call (202) 260-3887 (voice). Individuals who use TDD may call the Federal Information Relay Service at 1-800-877-8339.

Or you may contact us at the following address:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202-5920

The following categories of information about students are considered "directory information" pursuant to section 76240 of the Education Code: student's name, address, telephone number, date and place of birth, field of study, participation in activities and sports officially recognized by the San Francisco Community College District, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous public or private school attended by the student. The District may limit or deny the release of specific categories of directory information based upon a determination of the best interest of students. Directory information may be released at the discretion of the College to persons or agencies which the College deems to have legitimate reason for access to the information. To prevent disclosure, written notification must be delivered personally to the Office of Admissions and Records.

Information other than directory information will not be released without the student's written consent unless the College is required to do so by law as, for example, in the case of a court order. Questions about policies and procedures concerning privacy of records and rights of access to them may be referred to the Dean of Admissions and Records.

Electronic Communication Privacy Statement
The college expects electronics communication privacy protections comparable to those traditionally given to paper mail and telephone communication.

Persons who have questions about the collection or dissemination of student information may call the Dean of Admissions & Records at 239-3291 or the Dean responsible for maintaining the information.

Regulations Governing Student and Other Organizations or Persons Desiring to Conduct Noninstructional Activities on Campus

Under State law and local regulations, the Administrative Staff of City College of San Francisco is responsible to the Governing Board and the Chancellor of the San Francisco Community College District for the organization, operation, and supervision of a sound educational program designed to provide transfer, general, and occupational education; essential student personnel services; and extracurricular activities. To discharge this responsibility, the Administrative Staff is required under the California State Education Code and the regulations of the Board of Governors of the California Community Colleges and the Governing Board of the San Francisco Community College District to take all steps necessary to prevent the conduct on campus of any activity that interferes with instruction or is otherwise inimical to the welfare of the student body or of individual students.

City College has therefore established various regulations, including those governing the following: student activities and government; noninstructional student meetings held on campus; guest speakers at such meetings; the use of City College facilities by student or other organizations or movements; and the distribution, posting, or other use of bulletins, circulars, and publications of any kind on campus. These regulations, like all others in effect at City College, have been established in conformance with the responsibilities assigned to and under the authority vested in the Administrative Staff under State law and College District regulations.

Student Governance: Policies, Regulations, and Procedures Governing Students, Student Organizations, and the Use of Facilities

Section I. General Provisions

Part A. Enactment Procedures
The policies, regulations, and procedures governing students, student organizations, and the use of facilities at City College of San Francisco are established as follows:

1. Guidelines are set forth by the College Administration.
2. The guidelines are reviewed by the Chancellor of City College in order to ensure conformance with State codes and local policies and regulations.

3. Upon approval by the Chancellor, the guidelines are submitted to the Governing Board of the College, with a request for approval. The guidelines become effective upon approval by this agency.

Part B. Procedure for Revision
The policies, regulations, and procedures stated in the following pages were established in accordance with the procedure described above, and may be revised only in accordance with that procedure or to meet legal requirements.

Part C. Definition of the Term “Student”
The term student, as used in connection with the foregoing College policies, regulations, and procedures is defined as follows: a person officially registered in at least one course at City College of San Francisco.

Section II. Students and Student Organizations
Part A. Student Government
1. Student Government
   Under State law and the Governing Board policy, the Chancellor of City College may authorize the establishment and continuance of the Associated Students, approve its membership fees, and delegate to it, as set forth in the Education Code and in the Constitution of the Associated Students, the specified fiscal and legislative powers and responsibilities concerning the affairs of its membership.

2. Fiscal Policy of the Associated Students
   The Chancellor of City College is responsible for the fiscal soundness of the Associated Students of City College of San Francisco. It is his/her responsibility to ensure that the financial operation of the Associated Students is in accordance with the provisions of the laws of the State of California and the policies of the Governing Board of the College.

Part B. Student Organizations
1. Registration of Student Organizations
   An organization not prohibited by law may become a registered on-campus student organization by complying with the registration procedures and membership regulations established by the Student Council of the Associated Students.

2. Policy Regarding Discrimination in Choice of Members
   Membership regulations of student organizations must specify that eligibility for membership shall not be determined through discrimination based on race, age, physical disability, sexual orientation, creed, color, or sex. Questions of discrimination on these and other bases shall be reviewed by the Associate Dean, Student Activities. The Dean's decision may be appealed to the Associate Dean of Student Advocacy, Rights and Advocacy.

3. Sponsors of Registered Student Organizations
   The Chancellor of City College may appoint sponsors for and establish regulations concerning sponsorship of registered student organizations.

4. Standards of Conduct and Discipline
   Student organizations are required to comply with College policies, regulations, and procedures. Members of these organizations are subject to disciplinary action for violation of such policies, regulations, or procedures.

5. Use of the Name of City College of San Francisco
   Only a duly registered on-campus student organization may use the name of City College of San Francisco as a part of its own name. A student organization may advocate its own views and positions, but at no time shall an organization or a coalition of student organizations purport to represent the entire student body of City College of San Francisco.

6. Use of College Facilities by Student Organizations
   College facilities may be used by registered student organizations for meetings, social functions, raising funds, recruiting participants, and posting and distributing literature only in accordance with State law, Governing Board policy, and College rules, regulations, and procedures. Requests for use of facilities shall be made to the Associate Dean, Student Activities, sufficiently in advance to permit proper planning for the proposed use.

7. Collection of Fees
   Registered student organizations, in accordance with State law, Governing Board policies, and College rules, regulations and procedures may collect dues and initiation fees, conduct sales, and charge admission fees to certain student activities. Funds collected through these activities are subject to financial accountability as specified in the Guidelines for the Management of A.S. Funds. Raising of funds for charitable organizations shall be in accordance with established policies of the Governing Board.

Part C. Free Speech and Advocacy
1. Statement of Policy
   The Constitution of the United States guarantees freedom of assembly or association. However, this guarantee does not prohibit a governing board or a college administration from adopting reasonable regulations governing the exercise of these rights on a college campus. The right of freedom of speech, for example, is not paramount to the right of privacy. Guidelines governing the exercise of free speech on the City College campus are developed, therefore, in order to ensure that other equally important legal rights are protected as stipulated in State law and local regulations.

2. Regulations Governing Free Speech
   In order to facilitate the equitable application of the principles of free speech on campus, City College has established the guidelines enumerated in Part D as the means of ensuring orderly conduct, noninterference with College functions or activities, identification of sponsoring groups or persons, and protection of persons against practices that would make them involuntary audiences on campus for another person's exercise of free speech. Whenever the Chancellor of City College considers it appropriate, he/she may require that either one or both of the following conditions be observed in connection with a campus meeting addressed by speakers: (1) that the chairperson of the meeting be a person approved by the Chancellor; and (2) that the speaker be required to answer questions asked by the audience. It shall be the responsibility of the Chancellor to allow opportunity for the expression of a variety of viewpoints.

3. Regulations Governing Guest Speakers
   a. Request Procedures:
      The chairperson or president of a registered on-campus organization requesting facilities for an off-campus speaker should sign up with the Associate Dean, Student Activities, for the time and place desired (see Rule 5 and Part D).
b. Review of Request for a Speaker:
   If a decision on a request for an off-campus speaker is to be
   reviewed, the Associate Dean, Student Activities, and/or the
   on-campus organization making the request (represented by
   the student chairperson and the faculty sponsor) may refer the
   matter to Associate Dean of Student Affairs for his/her specific
   recommendation to the Chancellor.

c. Sponsorship:
   Sponsors of student organizations are required to review all
   requests for off-campus speakers in advance, and students are
   required to present to the Associate Dean, Student Activities,
   a form signed by their sponsor when requesting a time and a
   place for an off-campus speaker's address. Every sponsor of a
   campus organization is expected to make arrangements for a
   guest speaker's appearance before his/her group on campus,
   and should be present during the address. A substitute should
   be appointed if the sponsor cannot be present.

4. Regulations Governing the Scheduled Use of the Free-Speech
   Area
The following guidelines are established to facilitate the equitable
use of the City College free-speech area by all students:

a. Only registered students (not substitutes) who have signed up
   in advance for use of the free-speech area are permitted to use
   the area.

b. A sign-up list governing use of the area for at least two weeks
   in advance must be maintained in the Office of the Associate
   Dean, Student Activities, in order to permit proper scheduling.

c. Students wishing to use the area for impromptu speeches
   or presentations must sign up for a single half-hour period
   at a time, and must use that period before signing up for
   another one. If more flexible scheduling permits, however,
   the Associate Dean, Student Activities, at his/her discretion,
   may allow a student to sign up for more time on the two-week
   master calendar.

d. For a special event, such as an address by a sponsored off-
   campus speaker or an organized, planned debate, more than
   the half-hour period may be made available for use of the free-
   speech area. Chairpersons of on-campus organizations should
   sign up for such special events at least three College days in
   advance, but a week's notice is recommended.

e. Students desiring to use the free-speech area for impromptu
   use or special events must
   i. sign up for the time period available, and
   ii. indicate the general topic to be discussed or entertainment
      activity to be scheduled.

f. If the schedule governing the use of the free-speech area
   cannot be followed, the following rules will apply:
   i. If a student does not arrive at the area for a scheduled
      appearance, another student may be permitted to sign up for
      the time not being used. In such instances, however, at
      least ten minutes must be allowed for the scheduled event
      to take place before anyone may sign up for the unexpired
      time.
   ii. A scheduled activity must be allowed to continue at the
       free-speech area until the next scheduled event, at which
       time the podium must be vacated promptly.

iii. If time becomes available during the day because of cancel-
    lation of a scheduled event, a student scheduled for another
    time may be permitted to sign up for the area in addition
    to his scheduled activity, but may not deliver his initially
    scheduled address until the time originally scheduled.

g. A speaker scheduled to use the free-speech area should
   permit another student or students to speak in reply to his/
   her remarks while he/she is using the area, without the others
   signing up in advance as scheduled speakers. However, this
   provision does not apply to students denied the right to use
   the area because of prior disciplinary action by the adminis-
   tration (see Section 4 above).

h. If verification is needed to demonstrate priority for use of the
   free-speech area, the Associate Dean, Student Activities, will
   issue special scheduled cards to verify student sign-ups for
   particular periods and dates.

i. If necessary, and then only if a serious disturbance arises at
   the free-speech area, campus police or other persons delegated
   by the administration are authorized to ask for the identity of
   persons claiming the right to use the area.

j. For rules for the distribution of literature, commercial free
   speech rights, the manner of collecting funds on the City
   College campus, or for additional information, contact the
   Office of the Associate Dean, Student Activities.

5. Use of Bulletin Boards and Distribution of Materials on Campus
   Individual students or authorized student organizations desiring
   to distribute or post bulletins, circulars, or publications on the
   City College of San Francisco campus must obtain permission
   from the Associate Dean, Student Activities. Materials originating
   from outside City College must bear the official approval
   of the Associate Dean, Student Activities. College bulletin boards
   and tack boards may not be used for commercial purposes.

6. Violation of Regulations
   Students who violate the preceding regulations regarding student
   governance and the use of bulletin boards and distribution of
   materials on campus will be subject to disciplinary action.

7. Observance of Regulations Governing the Student Activities
   Program Officially registered students desiring to take part in
   an activity of the Associated Students of City College of San
   Francisco or of any other organization sponsored by City College
   may do so only in conformance with the rules and regulations
   of the Associated Students, the particular organization, and the
   College.

Part D. Use of College Facilities
Under the California Education Code sections 82537 to 82548 and the
Administrative Regulations of the San Francisco Community College
District, organizations or persons not directly connected with the City
College of San Francisco may use campus facilities only under certain
limited conditions, and must make application for such use through
the Office of Facilities and Planning of the San Francisco Community
College District. Under the preceding law and regulation, ad hoc
student groups are subject to the policy governing organizations and
groups not directly connected with City College.
Regulations Governing Solicitation at City College of San Francisco-Ocean Campus

Members of the public are welcome to speak and/or distribute written materials within the designated areas of each campus subject to the time, place, and manner regulations and posting/distribution guidelines.

The following regulations are established to govern solicitation by off-campus organizations and individuals to table, display materials, petition, engage in public address, distribute literature and/or post flyers on CCSF’s Ocean Avenue campus.

1. Before setting up a table or display, engaging in public address, distributing literature, seeking signatures on a petition and/or posting flyers, all solicitors shall report to the Office of Student Activities to sign in to notify the Associate Dean of Student Activities of the solicitor's presence on campus, and to acknowledge receipt of these regulations. This notice does not involve any application or approval process, and therefore, the ability to use the designated area cannot be denied. This notice is only intended to provide CCSF with knowledge of the solicitor’s presence on campus so that CCSF can notify the appropriate members of its staff whose services might be needed or impacted by the use of the designated area.

2. The designated areas for solicitors to table, set up displays, seek signatures on a petition and/or engage in public address at Ocean Campus are RAM PLAZA located between Smith Hall and the Student Union, the CLOUD SCIENCE MALL located between Cloud Hall and Science Hall, and the WELLNESS CENTER AMPHITHEATRE located outside of the Community Health and Wellness Center and the Student Union. The solicitor must REMAIN in these specified areas only.

3. Tables and display materials may be set up only in the above designated areas on Ocean Campus. Solicitors must provide their own signage, tables, chairs, and materials. Free gifts (other than food and drink) may be distributed. Literature/newspapers and/or other items cannot be sold, nor can donations be solicited from any student, faculty, or classified staff in the designated areas or anywhere on the Ocean Campus.

4. The use of sound amplification is only allowed in RAM PLAZA and the WELLNESS CENTER AMPHITHEATRE. Solicitors shall not use any means of amplification that creates a noise or diversion that disturbs the orderly conduct of the College, campus, or classes taking place at that time. No sound amplification of any kind is allowed in the CLOUD SCIENCE MALL.

5. Solicitors who wish to distribute literature only (i.e. who do not also want to set up a table or display, petition and/or engage in public address) may do so in the above designated areas as well as on the sidewalks and pathways along Cloud Circle, leading to Cloud Hall, Science Hall, and Batmale Hall from Cloud Circle, leading to Science Hall from Phelan Avenue, leading from Parking Lot H between Smith Hall and Conlan Hall to Cloud Circle and leading from Judson Avenue in front of the Diego Rivera Theatre, between the Visual Arts and Creative Arts Buildings to Cloud Circle. Solicitors may not distribute literature in any other areas, including parking lots, the sports facilities, any construction zones and the areas surrounding the Student Health Center, the Arts Extension Building and/or the Orfalea Family Center.

6. Solicitors MAY NOT walk up to pedestrians and force them to take literature, follow pedestrians to classes or elsewhere on campus, or obstruct the flow of traffic of pedestrians walking to and from buildings. No solicitor shall touch, strike, or impede the progress of pedestrians, except for incidental or accidental contact, or contact initiated by a pedestrian.

7. Any solicitor who is distributing literature must retrieve and remove or properly discard any literature that is discarded or dropped in or around the area in which the solicitor is distributing literature prior to leaving that area.

8. Solicitors should refer to the Posting Guidelines before hanging materials. Such Posting Guidelines are available at the Student Activities Office.

9. Solicitors are expected to conduct themselves in a respectful manner toward all students and college personnel and to follow a code of conduct which prohibits the following:
   a. Abuse or any threat of force or violence directed toward any member of the College or to an authorized College visitor while on College property
   b. Willful misconduct that results in the injury or death to a student or College personnel or injury to property belonging to a member of the College or to an authorized College visitor while on the property.
   c. Unauthorized entry to or use of College facilities, supplies, or equipment
   d. Obstruction or disruption of classes, administration, or authorized College activities
   e. Violation of College rules and regulations including those concerning the use of college facilities, or the time, place, and manner of public expression or distribution of materials
   f. Disorderly conduct that interferes with the College’s primary educational responsibility
   g. Failure to comply with these regulations and the directions of College officials, staff, or campus police to enforce these regulations.

These regulations are specific to Ocean Campus, but apply to all campuses of CCSF. For campuses other than Ocean, solicitors must contact the applicable dean at the respective campus.

Consequences of failure to comply with the above regulations include:

1. Written warning; if after a warning, failure to follow regulations continues, the solicitor will not be allowed access to CCSF for a period of four (4) school months or the rest of the semester, whichever is longer.

2. If failure to follow any of the above continues after the four month or semester suspension, access to CCSF will be denied.

Posting and Distribution of Guidelines

City College of San Francisco, pursuant to applicable law, provides for the posting and distribution of literature on campus by off-campus organizations and/or individuals. The following guidelines have been established to facilitate effective and organized dissemination of information on the Ocean Campus.

Posting:

1. Items for posting may be no larger than 11”x17”, and the use of recyclable materials is recommended.
2. Each item must clearly state on its face the name of the individual or organization posting the item, the date of the event advertised, if any, and the date the item was posted.

3. Posted items will be removed from the bulletin boards two weeks after the date the item was posted or after the date for the event advertised on the item had passed, whichever is earlier. If a bulletin board has no space available after such removal of expired items, any items that do not show a date of posting on their face or an event date will be removed.

4. Flyers that are in a language other than English must include English description, summary, or translation in the flyer, or have a separate flyer that provides the information in English and they must be posted side by side.

5. Tacks or pushpins should be used to post items-tape, glue, nails and industrial staples are prohibited.

6. No more than one item per event or organization, if the item posted is a general announcement, may be posted on each board.

7. Posting is allowed only on boards established for that purpose as listed below.

8. Items posted on buildings, poles, garbage containers, trees, campus directional signs or anywhere other than the approved bulletin boards listed below will be removed.

9. Bulletin boards are located at the following sites:
   • Arts Extension: 2 boards directly opposite the main entrance on the main floor
   • Batmale Hall: 2nd floor, 4th floor, 5th floor, 6th floor, 7th floor
   • Cloud Hall: 1st floor, 2nd floor, 3rd floor
   • Conlan Hall: 1 board opposite room 104
   • Creative Arts: 1 board near west side entrance on the 1st floor
   • Smith Hall: 2 wooden boards on wheels
   • Student Union: 1 board across from room 209, 2 in upper level and 1 in lower level

Distribution
1. All on campus organizations and/or individuals wishing to distribute literature must report to the Office of Student Activities to sign in to notify the Associate Dean of Student Activities of the solicitor’s organizations and/or individuals.

2. Distributors are required to provide the following information: name of organization, contact name, and dates and times of distribution.

3. Any persons who have not signed in before distributing literature on campus are subject to disciplinary action by the Associate Dean of Student Activities.

4. Solicitors who wish to distribute literature only (i.e. who do not also want to set up a table or display and/or engage in public address) may do so Ram Plaza, the Wellness Center Amphitheater and the Cloud Science Mall as well as on the sidewalks and pathways along Cloud Circle, leading to Cloud Hall, Science Hall, and Batmale Hall from Conlan Hall to Cloud Circle, and leading from Judson Avenue in front to the Diego Rivera Theatre to Cloud Circle. Solicitors may not distribute literature in any other areas, including parking lots, the sports facilities, any construction zones and the areas surrounding the Student Health Center, the Arts Extension Building and/or the Orfalea Family Center.

For further information and assistance, contact the CCSF Student Activities Office Student Union Room 205, 239-3212.

Student Rights and Responsibilities

Purpose and Scope. Community and college districts are required by law to adopt standards of student conduct along with applicable penalties for violation (Education Code Section 66300). The San Francisco Community College District has complied with this requirement by adopting PM 6.11.01 and AR 6.11.01, Rules of Student Conduct. The purpose of this Board Rule is to provide uniform procedures to assure due process when a student is charged with a violation of these standards. All proceedings held in accordance with these procedures shall relate specifically to an alleged violation of the established standards of student conduct.

Students of City College of San Francisco are expected to help maintain an environment in which there is freedom to learn. The College believes that each student has an earnest purpose; that he/she will adhere to acceptable standards of personal conduct; and that students and student organizations will participate in the development of proper standards of conduct and good taste; and that they will abide by all College regulations. Students or student organizations making inappropriate use of the opportunities, rights, and privileges should expect to have them withdrawn or curtailed.

In the development of responsible student conduct, disciplinary proceedings play a role substantially secondary to example, counseling and admonition. In the exceptional circumstances when these preferred means are not appropriate or fail to produce student acceptance of responsibility commensurate with student freedom, due process shall be observed to protect the student from the unfair and arbitrary imposition of serious penalties.

When an issue of student conduct arises, the college community will take action as the particular occurrence, judged in the light of attendant circumstances, seems to require.

Rules of Student Conduct

Student conduct in the San Francisco Community College District must conform to District rules and regulations. The rules and regulations of student conduct prohibit the following:

1. Continued disruptive behavior, continued willful non-compliance, willful and persistent profanity or vulgarity, or the open and/or persistent defiance of the authority of, or persistent abuse of, District personnel or officials acting in the performance of their duties;

2. Assault or battery, abuse, extortion, or any threat of force or violence directed toward any member of the District community (students and employees) or District visitor engaged in authorized activities;

3. Academic or intellectual dishonesty, such as cheating or plagiarism. Cheating is defined as taking an examination or performing an assigned, evaluated task in a dishonest way, such as by having improper access to answers. Plagiarism is defined as the unauthorized use of the language and thought of another author and representing them as your own;

4. Dishonesty, such as theft or the unlawful taking of property from the rightful owner, or knowingly furnishing false information to the District, or forgery, alteration, or misuse of District documents, records, or identification;

5. Willful misconduct which results in injury or death to a student or District personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the
14. Possession while on District property or at any District sponsored function, of any of the following weapons (except for persons given permission by the Chancellor or designee as members of law enforcement operations); any instrument or weapon of the kind commonly known as black-jack, fire bomb, billy club, sandclub, metal knuckles; any dirk, dagger, or knife having a blade longer than two inches; any switchblade longer than two inches, any razor with an unguarded blade; any firearm (loaded or unloaded) such as a pistol, revolver, rifle, automatic or semi-automatic weapon; any metal pipe or bar used or intended to be used as a club; or any other item, such as a chain, used as a threat to do bodily harm;
15. Failure to comply with directions of District officials, faculty, staff or campus police officers who are acting in performance of their duties;
16. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
17. Per California Education Code (78907), the use by any person, including a student, of any electronic listening or recording device in any classroom without the prior consent of the instructor is prohibited, except as necessary to provide reasonable auxiliary aids and academic adjustments to disabled students. Any person, other than a student, who willfully violates this section shall be guilty of a misdemeanor.

Disciplinary sanctions for the above offenses shall include, but are not limited to, warning; verbal and/or written reprimand; a failing grade in an assignment, test, or class in proven cases of cheating or plagiarism or other academic dishonesty; disciplinary probation; ineligibility to participate in extra-curricular activities; removal from classes by the instructor for no more than two class meetings; removal from an instructional laboratory, study facility, or other supervised student activity by the designated site supervisor for no more than two sessions or meetings; suspension from classes by the Chancellor (or designee) for up to the remainder of the school term or from all classes and activities of the District for one or more terms; and expulsion. Suspension or expulsion of a student shall be accompanied by a hearing to determine if good cause warrants such suspension or expulsion. Good cause shall include, but is not limited to, conduct identified above as prohibited.

Procedures for implementation of these rules shall be adopted by the Chancellor or designee.

**Types of Discipline**

**WARNING**: Notice to the student that continuation or repetition of specified conduct may be cause for other disciplinary action (May be written or oral notice).

**REPRIMAND**: Written reprimand for violation of specified regulations or misconduct. A reprimand places on record that a student has violated college regulations. A student receiving a reprimand is notified that continued violations may result in formal disciplinary action.

**RESTITUTION**: Reimbursement by the student for damage to or misappropriation of property. Reimbursement may take the form of appropriate service by the student to repair property or otherwise to compensate for damage.

**DISCIPLINARY PROBATION**: Specific period of conditional participation in campus and academic affairs, which may involve exclusion from designated privileges or extracurricular activities. If a student violates any condition of probation, he/she shall be subject to further disciplinary action to be taken in accordance with these procedures.

**REMOVAL**: Should be exercised when warning or reprimand fails to bring about proper conduct. Removal may be immediate if student presents a present danger. Instructor may remove a student for cause from class for the day of the class and the next meeting for a maximum of two class meetings.

**SUSPENSION**: Suspension from classes for up to the remainder of the school term or from all classes and activities of the College for one or more terms. Suspension is the termination of student status for that period of time.

**EXPULSION**: Termination of student status, for an indefinite period, requires the approval of the Governing Board. The student may be readmitted to City College only with the specific approval of the Governing Board.

Suspension or expulsion of a student shall be accompanied by a hearing to determine if good cause warrants such suspension or expulsion. Good cause shall include, but is not limited to, conduct identified above as prohibited.

**Due Process**

A student has a right to due process. The Office of Student Advocacy, Rights and Responsibilities (Conlan Hall, Room 106 C) has the responsibility to assure the implementation of this due process.

**Student Complaints**

A student complaint is an allegation by a student against a faculty member that the member has harmed a student by violating a policy, rule, or regulation, or otherwise engaged in inappropriate conduct. A complaint does not include a grade or file challenge, or an allegation of discrimination or sexual harassment, or other conduct for which immediate disciplinary action or suspension could result.
Student complaints are governed by the following procedure:

**Informal Process**

1. A complaint should first be raised directly with the faculty member concerned.
2. If a direct meeting does not resolve the complaint, or if either party is unable or unwilling to meet, the complaint should be taken to the faculty member’s supervisor.
3. The supervisor may take the following action including, but not limited to:
   a. Investigating the complaint.
   b. Meeting with any party separately or facilitating a joint meeting.
   c. Recommending appropriate action to any party.
   d. Recommending an evaluation of the faculty member to the Chancellor.
   e. Redirecting the matter as appropriate.
4. If the supervisor fails to resolve the complaint within 20 semester instructional days then the student may file a formal complaint in accordance with the process set forth below. Semester instructional days include only regular business days during the Fall and Spring semesters, and not summer sessions.
5. If, after the failure of the supervisor to resolve the complaint at the informal level, the student fails to file a formal complaint within an additional 20 semester instructional days then the matter will be considered dropped unless renewed by the student within the first 20 semester instructional days of the next semester.

**Formal Process**

1. If any party is dissatisfied with the result of the informal process, that party may appeal the matter to the Dean of Student Advocacy, Rights and Responsibilities whose role is to channel the complaint to the appropriate Vice Chancellor and to the Academic Senate. If any party chooses to pursue the matter to the formal level, all parties shall be given written notice of that fact. Any party who appeals a complaint to the formal level must complete a form which describes:
   a. The specific nature of the complaint and its history;
   b. All efforts which have been made to resolve the complaint;
   c. What the appealing party would consider a fair and appropriate resolution of the complaint.
2. Upon receiving a formal complaint, the appropriate Vice Chancellor and the Academic Senate shall each appoint one member to a committee whose function shall be to hear and decide the matter.
3. In reaching its decision, the committee may take any action which could have been taken pursuant to the informal process, except that the committee may not redirect the matter.
4. The findings and decision of the committee must be made in writing and provided to the student, the faculty member, and the member’s supervisor, and must encompass some or all of the following results:
   a. Resolution of the complaint to the satisfaction of all parties.
   b. Dismissal of the complaint with or without the consent of all parties.
   c. Recommendation of appropriate action to the faculty member’s supervisor.
   d. At the committee's discretion, its decision and the underlying student complaint may be inserted into the faculty member's personnel file.
5. Formal complaints should be resolved as quickly as possible. Except under unusual circumstances, the written findings and decision of the committee should be provided within forty [40] semester instructional days of its receipt of the formal complaint.
6. Any student or faculty member involved in a student complaint may, by his/her own initiative, provide representation of their choice.

Notice: Student complaints may have serious consequences for the faculty member concerned. Students should recognize that differences in personality, opinion, and perception do occur, and can often be resolved by discussions between the parties. Whenever possible, students are encouraged to address such differences directly with the faculty member.

**Student Grade and File Review**

**Function And Purview**

The Student Grade and File Review Board, composed of students, faculty and administrators, reviews individual student grievances respecting course grades and file contents. After reviewing a particular grievance, the Board recommends appropriate action to the Chancellor, the instructor and the student. The Board acts as an arbitrating body and does not have the power to change grades directly. Students should be aware that there is also a Grading Policy Committee that addresses general grading practices and policies at the College.

**Review Procedures: Policies, Grades, And Files**

1. **Review of Policies**
   The Student Grade and File Review Board reviews and proposes revision, when necessary, of policies, regulations and procedures affecting student grade and file grievances.

2. **Review of Grades**
   If a student thinks a discrepancy exists between the grade given by an instructor and the grade he/she believes was achieved, the student should follow the steps of the appeal procedure below. **Important:** For midterm grades, step two of the procedure below must be completed within ten (10) calendar days after receipt of the grade; and for final grades, step two of the procedure below must be completed within forty-five (45) calendar days from the start of instruction in a student’s next regular semester of attendance (fall or spring), or no later than one year from the last day of instruction in the semester in which the grade was given.

**Appeal Procedure:**

**STEP 1:**
A student wishing to appeal a grade must first discuss the issue with the instructor in an office-hour conference. If, for any reason, the student is unable to confer with the instructor, he/she must then consult with the department chair of the particular department. Every effort should be made to resolve the issue at this level.

**STEP 2:**
If the student wishes to have a grade reviewed further after completing Step One, he/she should obtain a Petition for Grade Review from the Office of Student Affairs, Conlan Hall, Room 106. This petition requires that the student explain the grading
STEP 3:
After the conference with the Associate Dean of Student Advocacy, Rights and Responsibilities verifying the completion and timeliness of the petition, the student may request the Dean to forward the petition to the Student Grade and File Review Board, thereby requesting a formal hearing of the dispute in accordance with the procedure below.

3. Grade Review Hearings
   a. During the review of an individual student's grade grievance, the Student Grade and File Review Board assigns the case to a subcommittee which shall in closed session discuss the issues involved, hear testimony, question witnesses and consider all available evidence relevant to the case. The subcommittee will consist of representation of student, faculty, and administration.
   b. All principal parties shall have the right to present written or oral statements concerning the grievance. Each party may bring a representative.
   c. The Review Board shall consider the relevancy and merit of all written and oral information and make its recommendations to the full Board, limiting its investigation to the specific case under review.
   d. The Board shall make a final recommendation and submit that recommendation in writing to the Chancellor of City College, and shall communicate the recommendations to the student, the instructor, the department chair and the school dean.

4. Review of Student Files
   It is expected that City College will maintain student files for the purpose of documenting academic progress as well as documenting any events that have aided or deterred academic progress. (Note: Grade and File Review petitions do not become part of a student's file.) Such student files are confidential and information therein contained shall be released only (a) at the written request of the student or (b) in such circumstances that, in the opinion of the Associate Dean of Student Advocacy, Rights and Responsibilities, the information is needed for the safety and well-being of the student, other students and the personnel of City College or (c) when subpoenaed by a court of law.
   Every student has the right to review his or her City College files. File reviews are conducted in the office in which the file is kept with the following steps:
   a. The student presents a written request, signed and dated, to review his/her file(s).
   b. An appointment is arranged for the student to review his/her file under the supervision of the department chair or dean or designee. No documents are to be added or removed in this review.
   c. If the student believes that material contained in his or her file(s) is inappropriate or inaccurate, the student may bring the matter to the attention of the department chair or dean in charge of the file(s) and ask for a correction of the situation.
   d. If the department chair or dean in charge of the file(s) is unable, for any reason, to comply with the student's request for correction, the student may submit a typewritten request for file correction to the Associate Dean of Student Advocacy, Rights and Responsibilities. This request must explain specifically which documents are inappropriate or inaccurate, why the student considers them so, and what specific correction is requested.
   e. This request will be reviewed by the Dean of Student Advocacy, Rights and Responsibilities and, if deemed appropriate, will be forwarded to the Grade and File Review Board. The Board will review the request in the same manner as petitions for grade reviews, that is, through the subcommittee process (see 3 above) and will submit a recommendation to the Chancellor.

Further information and assistance may be obtained from the Associate Dean of Student Advocacy, Rights and Responsibilities, Conlan Hall, Room 106.

CCSF Bookstores
Purchasing Textbooks, Supplies, And Equipment
In accordance with State law and local regulation, City College does not supply textbooks. The cost of these varies according to students' programs. Students are expected to secure textbooks, laboratory books, workbooks, pens, pencils, and paper for most courses. In addition, in some courses, students are expected to provide tools, equipment, clothing, materials, or pay a special materials fee. An estimate of the cost of additional materials or fees for any class may be obtained from the appropriate department or center.

The San Francisco Community College District Bookstore Auxiliary operates several bookstores to serve the City College population. Textbooks and many supplies for City College courses may be purchased at the CCSF Bookstore serving the campus where the course is taught. Books are usually available from the first day of class. Because of the size of the stores, services may vary from location to location. Current hours and store policies are available at each store. Bookstore information is available on the bookstore web page at http://www.ccsf.edu/bookstore.

The schedule of classes issued each semester also contains current information about bookstore services.

San Francisco Community College Police Department
On May 5, 1980, the governing board of the San Francisco Community College District established a "Community College Police Department," (to be known as the Department of Public Safety). Under the California Education Code, sections 72330 and 72334 and California Penal Code, section 830.32(a), personnel, when appointed and duly sworn, are designated as peace officers.

San Francisco Community College Police Department is a certified P.O.S.T. police agency with sworn officers readily identified by the uniforms which include their distinctive patch and gold or silver star. The Department also employs security officers, called Campus Control
City College Student Police

The City College Chief of Police, working in partnership with the City College Administration of Justice Studies Program, authorizes the operation of a Student Officer Program. The purpose of the program is to assist the educational development of the City College students interested in the field of Law Enforcement.

Student Officers are approved into the program by the Administration of Justice Studies Coordinator, and must meet and maintain specific criteria. City College student officers assist the police department in several areas including, but not limited to, parking enforcement, safety escort, traffic control, special events and student code of conduct matters. Student officers operate under the oversight of a police department liaison.

The City College Student Program is designed as an internship and individuals in the program do not receive direct compensation except for particular assignments. The Student Officer Program provides over several thousand hours of service to the campus community.

Smoking


Student Identification

Student identification must be carried at all times and displayed upon request by City College staff, faculty, administrators, student campus police officers, and District police officers.

Student Lockers

Lockers in the gymnasiums are assigned to students in physical-education courses. Students must remove the contents of these lockers, together with padlocks, not later than Monday during the final examination period each semester.

Lockers are also assigned to students in various laboratory courses. Students must follow the department regulations in using these lockers.

Student Parking

The campuses of City College are easily accessible by public transportation. Students are encouraged to use MUNI and BART or to carpool.

The Ocean Campus has a limited number of parking spaces available for student parking. Students are required to pay a fee for either a semester or daily parking permit. Sales of semester parking permits (decals) are available on a first come, first served, basis before the start of each semester. Daily parking permits are available in all student lots and during day classes, student parking is restricted to the main reservoir area and parking lot "S" (previously the location of the South Gym). Information regarding the rules and regulations for student parking, including fees for semester decals and rates for daily parking are available through the Student Accounting Office in Conlan Hall, Room 104. For information call (415) 239-3345 or refer to the Class Time Schedule.

Other campuses of City College of San Francisco have NO on-site parking or very limited parking for students. For student parking information for all other campuses, call the San Francisco Community College Police Department at (415) 239-3200.

Visitors on Campus

Visitors to the campus are welcome. Vehicle parking in all parking lots is by permit only. Vehicles without a permit will be ticketed. Day School visitors are allowed to park in main reservoir parking and parking lot "S" (previously the location of the South Gym), with the purchase of a one-day permit. After 5:00 p.m., visitors may park in all lots (except Cloud Circle, Marston Road, and Science Road) with the purchase of a one-day parking permit. Information and directions are available from the Information Center located in the lobby of Conlan Hall. Visitors are required to observe College rules and regulations. A copy of the rules and regulations are available in Conlan Hall, Room 104 and Cloud Hall, Room 119 (Campus Police Office). Violation of any of these regulations are grounds for automatic revocation of the right to remain on campus. Prior permission must be obtained from the instructor before visiting classrooms. Since auditing of classes is prohibited, visits must be limited.

CCSF Computer Usage Policy

This policy is displayed to users via Message of the Day (MOTD) in the first two weeks of each semester at their logon to the CCSF HPUX computer system, and each user must agree to it in order to continue to use the CCSF computing facilities.

Violation of these policies will be dealt with in the same manner as violations of other College policies and may result in disciplinary review. In such a review the full range of disciplinary sanctions is available including the loss of computer use privileges, dismissal from the College, and legal action. Violations of some of the policies below may constitute a criminal offense.

Rights and Responsibilities

CCSF is pleased to make computer accounts and resources available for student use in the pursuit of their instructional goals, and to faculty and staff to support the institution’s instructional goals. In so far as the computing resources are under the user’s control, the user is fully responsible for their proper and legal use.

The Computer Usage Policy applies to all members of the College community using our computer resources. This includes administrators, faculty, staff and students. This includes use of computer equipment at any CCSF facility including in the various computer labs, classrooms, offices, libraries and the use of the CCSF servers from any location.

Student Parking

The campuses of City College are easily accessible by public transportation. Students are encouraged to use MUNI and BART or to carpool.
Computer accounts and computer access are privileges, and require
the individual user to act responsibly. By using the CCSF accounts,
users have agreed to respect the rights of other users and accounts, to
use the account only for school-related purposes, and to safeguard the
integrity of the system and its related physical resources. Users have
further agreed to observe all relevant laws, regulations, policies, and
contractual obligations of the College.

Other organizations operating computing and network facilities that
are reachable via the City College network may have their own policies
governing the use of those resources. When accessing remote resources
from City College facilities, users are responsible for obeying both the
policies set forth in this document and the policies of the other orga-
nizations. It is the user’s responsibility to be informed of the policies
of other outside organizations to which they establish a computer link.

Confidentiality
All user files, including e-mail files, are not to be relied upon as
confidential. CCSF explicitly does not guarantee or warrantee the con-
fidentiality of these files. It is the practice of Information Technology
Services (ITS) to respect the confidential nature of user files, but the
ITS Department reserves the right to view or alter user files when it is
necessary. Any ITS employee must have their manager’s permission
prior to investigating a user file.

User files may also be subject to search under court order if such files
are suspected of containing information that could be used as evidence
in a court of law. Student files as kept on ITS facilities are considered
educational records as covered by the Family Education Rights and
Privacy Act of 1974 (Title 20, Section 1232(g) of the United States
Code, also referred to as the Buckley Amendment).

In addition, a system administrator may access user files as required
to protect the integrity of the computer system. For example, system
administrators may access or examine files or accounts that are sus-
pected of unauthorized use or misuse, or that have been corrupted or
damaged.

Existing Legal Context
All existing federal and state laws and College regulations apply,
including not only those laws and regulations that are specific to
computers and networks, but also those that may apply generally to
personal conduct.

Misuse of computing, networking or information resources may result
in the loss of computing and/or network privileges without notice. This
includes both those that ITS administers, and those that may exist in
other departments associated with City College of San Francisco and
connected to its network. Deliberate violations of these policies will
be dealt with in the same manner as violations of other college poli-
cies and may result in disciplinary sanctions including, but not limited
to, loss of computer use privileges, dismissal from the college, and/or
appropriate legal action.

Additionally, misuse can be prosecuted under applicable statutes.
Users may be held accountable for their conduct under any appli-
cable College or campus policies, procedures, or collective bargaining
agreements. Complaints alleging misuse of the College's computing
resources will be directed to those responsible for taking appropri-
ate disciplinary action as specified under Enforcement below. Illegal
reproduction of software protected by U.S. Copyright Law is subject to
civil damages and criminal penalties including fines and imprisonment
(See CCSF Policy Manual 8.10).

Copyright
All users must follow all relevant copyright laws. U.S. Copyright law
governs reproduction and distribution of software and other mate-
rial, including text, fonts, graphics, sound, video and others. The End
User License Agreement (EULA) for a product specifies the condi-
tions under which a user may copy or install the product. The EULA
purchased by a department also controls the number of simultaneous
users of the product. Please review the EULA for complete information
on your rights as an end user of these products.

Nondiscrimination
Computer users need to follow the same non-discrimination policy
including those governing "sexual harassment" and "hostile education
environment."

All computer users must follow the non-discrimination guidelines as
stated in the CCSF "Equal Opportunity Statement" listed in the cata-
log: http://www.ccsf.edu/Catalog/Admin/nondiscrim.html

Any user who files a complaint or otherwise protests against discrimi-
nation has the right to be free from any retaliatory action because of
the complaint or protest. The CCSF administrator who receives a com-
plaint of discrimination should inform the complainant of this right
and that the complainant may file an additional complaint if he or she
experiences retaliatory conduct.

Examples of misuse include, but are not limited to, the following
activities:

Breaking into another person’s account
1. Using a computer account that you are not authorized to use by
the ITS Department.

2. Obtaining a password for a computer account that is not your
own account.

3. Using the Campus Network to gain unauthorized access to any
computer systems.

4. Attempting to circumvent data protection schemes or uncover
security loopholes. This includes creating, running, and/or
distributing programs that are designed to identify security loop-
holes and/or decrypt intentionally secure data.

5. Masking the identity of an account or machine. This includes, but
is not limited to, sending e-mail anonymously.

Harassment
1. Using e-mail to harass others.

2. Posting on Internet services information that may be slan
derous or defamatory in nature. This includes, but is not limited
to, posting of said type material on Usenet News.

3. Displaying sexually explicit, graphically disturbing, or sexually
harassing images or text in a public computer facility, or location
that can potentially be in view of other individuals.

Commercial Use
1. Using your account for any activity that is commercial in nature.
Commercial activities include, but are not limited to, consulting,
typing services, and developing software for sale.

Copyright
1. Violating terms of applicable software licensing agreements or
copyright laws.

Changing Files
1. Attempting to monitor or tamper with another user’s electronic
communications, or reading, copying, changing, or deleting
another user’s files or software without the explicit agreement of
the owner. Files owned by individual users are to be considered
private property, whether or not they are accessible by other
users.
2. Modifying another user’s files, which is illegal under California Computer Crime Laws.

System Misuse
1. Sending mass e-mail to a large number of people on the system. It is acceptable, however, to use organization or department mailing lists, listservs, to send e-mail to groups of people on the system.
2. Knowingly or carelessly performing an act that will interfere with the normal operation of computer systems, including running, installing, or giving to another user a program intended to damage or to place excessive load on a computer system or network. This includes programs known as computer viruses and worms.
3. Deliberately wasting/overloading system resources, such as:
   - Printing resources – This includes, but is not limited to, printing multiple copies of a document or printing out large documents that may be available online, or that might impact significantly on other users printing resources.
   - System file space – Storing or transferring of large files or using a large amount of file space in the temporary file system area which degrades overall system performance or preclude other users right of access to disk storage also constitute misuse of resources. The ITS staff may remove or compress disk files that are consuming large amounts of disk space, with or without prior notification.

Additional System Information
Batch jobs or background tasks should be consistent with individual academic goals or institutional academic goals. Jobs that do not appear to coincide with the academic goals of the institution may be “killed” without warning.

Any files stored in the temporary file systems are not backed up and are subject to deletion at any time. Users’ file names and directory names starting with a period or another punctuation or special character will be deleted immediately.

Enforcement
After the appropriate investigation and/or hearing procedures have been followed, the penalties below may be imposed under one or more of the following: City College regulations, California law, the laws of the United States.
   - Infractions of the CCSF Computer Policy may result in the temporary or permanent loss or modification of computer account and resource access privileges, and may be subject to further disciplinary action.
   - Offenses which may be in violation of local, state or federal laws will result in the immediate loss of all computer account and resource privileges, and will be reported to the appropriate College or institution involved and law enforcement authorities.

An individual’s computer use privileges may be suspended immediately upon the discovery of a possible violation of these policies. Such suspected violations will be confidentially reported to the appropriate supervisors or instructor and/or department chair.

This policy is subject to revision. The Information Technology Policy Committee will approve changes to the guidelines, as needed.
Academic freedom does not give faculty freedom to engage in indoctrinal professional services to students. Academic freedom encompasses the right of an instructor to discuss in the classroom pertinent subjects within his or her field of professional competency and consistent with course objectives, and for counselors, librarians and other academic employees to provide appropriate student services within their fields of professional competency and consistent with sound educational principles.

Interference with or censure of an academic employee by District officials or by outside individuals or groups because of the employee's proper treatment of pertinent subjects or provision of proper educational professional services to students is precluded by the principle of academic freedom.

Faculty cannot, however, expect academic freedom to be unlimited, for the right to exercise any liberty implies a duty to use it responsibly. Academic freedom does not give faculty freedom to engage in indoctrination. Nor can faculty invoke the principle of academic freedom to justify non-professional conduct.

Credits And Grades

Unit of Work

The standard unit, a measurement of college work, represents one college hour (50 minutes) of classwork weekly for one semester. In some courses, however, such as those in physical education and the laboratory arts and sciences, a greater number of hours of classwork are required weekly for each unit than in other courses. In general, two or more clock hours of preparation outside class are needed weekly for each unit of classwork.

Semester and Quarter Units

Most universities and colleges in the United States use the semester or quarter system and hence grant credit in semester units (s.u.) or quarter units (q.u.). For example, City College uses the semester system and grants credit in semester units; some California State University campuses and most University of California campuses use the quarter system and grant credit in quarter units.

Two semester units are equivalent to three quarter units. Therefore, to convert semester units to quarter units, multiply the number of semester units by 3/2 (or 1.50); to convert quarter units to semester units, multiply the number of quarter units by 2/3 (or 0.667).

Academic Record Symbols and Standards

A system of letter grades and grade points is used to indicate the quality of work done by students. The meaning of each evaluative symbol, with its value in grade points, is as follows:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing, less than satisfactory</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Exclusion</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td></td>
</tr>
</tbody>
</table>

P = Pass (At least satisfactory, C or better. Units awarded not counted in grade point average.)
NP = No Pass (Less than satisfactory or failing. Units not counted in grade point average.)

Standard English is expected in all College course work and is a consideration in grading. Its use is not an exercise limited to English classes alone.

Pass (P)/No Pass (NP) Courses

Formerly known as: Credit (CR)/No Credit (NC) Courses

Certain courses offered at City College of San Francisco are designated as pass/no pass courses. Such courses are shown in the catalog with the statement “P/NP only” meaning that only grades of P and NP are given for the course. Other courses are designated as optional pass/no pass courses. Such courses are shown in the catalog with the statement “P/NP available” meaning the course may be taken on a pass/no pass or on a letter grade basis; i.e., the pass/no pass option is available. Note: 1) Pass/no pass courses are counted toward graduation and for transfer and 2) in an optional pass/no pass course the student must file a petition with the Office of Admissions and Records to take the course on a pass/no pass basis no later than the deadline date established in the Calendar of Instruction. Petition forms are available from the Office of Admissions and Records. Students may also select “Pass/No Pass” grading option on-line through WebSTARS at http://www.ccsf.edu. In the absence of a “Petition for Pass/No Pass” students will be evaluated on a letter-grade basis. The “NP” symbol shall be used only in calculating units attempted for probation and dismissal.

Although City College does not limit the number of units a student may take on a Pass/No Pass basis, students planning to transfer should inquire of the transfer institution its policy on pass/no-pass course work. Some institutions may require a letter grade in course work used to satisfy specific requirements for admission and/or major preparation.

Noncredit Grading

Many noncredit classes do issue grades. Grading options, as written on the Course Outlines of Record, are:

- Letter-General (A, B, C, NP)
- Pass/Satisfactory Progress/No Pass (P/SP/NP)
- Letter-CCSF High School (A, B, C, D, F, +/-)
- Ungraded or No Grade

Grades are issued in noncredit career-technical/vocational classes, including Automotive, Business, Community Studies, Fashion, Health, Labor Studies, Trade Skills, and Vocational ESL. Each department determines which grading option is appropriate for the course; all classes/sections use the same grading mode.

Students on financial aid receive grades in all their noncredit classes, even if grades are nor usually assigned in those courses.

Students earn final letter grades in the high school classes in Transitional Studies which lead to the CCSF High School Diploma as approved by the California Community Colleges Chancellor’s Office. Grades are not issued in Child Development, Consumer Education, DSPS, Older Adult, and Parenting classes, some Transitional Studies and some Health classes that are not career-technical/vocational in nature.

Other Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>“E”</td>
<td>Exclusion</td>
</tr>
<tr>
<td>“I/”</td>
<td>Incomplete</td>
</tr>
</tbody>
</table>
“MW” = Military Withdrawal
“RD” = Report Delayed
“W” = Withdrawal

“E” Exclusion. The “E” symbol shall be used to denote grades of D, F, or NP the student has chosen to exclude from his or her academic history.

“I/” Incomplete. A student may be given a final grade of Incomplete only if illness or other unavoidable circumstances prevent him/her from taking the final examination or satisfying the other requirements in a course.

A student must make arrangements for an Incomplete with the instructor for the course. The instructor will file a record of Incomplete with the Office of Admissions & Records and give the student a copy. This record shall note the condition(s) for removal of the Incomplete and the grade to be assigned if the work is not completed.

The instructor determines when the student must submit work to remove the grade of Incomplete. The instructor must submit the Removal of Incomplete form by the following deadlines:

<table>
<thead>
<tr>
<th>Incomplete Received</th>
<th>Incomplete must be Removed by the last Day to Submit Grades for the Following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall semester</td>
<td>Spring semester</td>
</tr>
<tr>
<td>Spring semester</td>
<td>Fall semester</td>
</tr>
<tr>
<td>Summer semester</td>
<td>Fall semester</td>
</tr>
</tbody>
</table>

A final grade shall be assigned when the work stipulated has been completed and evaluated. If the student fails to meet the condition(s) of the removal of incomplete or when the time limit for completion has expired, the predetermined grade shall be assigned (i.e. “F” in the case of I/F).

A student should make arrangements for the removal of an Incomplete with the instructor for the course. In the absence of the instructor, the student should contact the department chair.

If a student is, due to extenuating circumstances, unable to complete the work by the deadlines specified in the table above, the student may, after contacting the instructor, petition the Associate Dean of Student Advocacy, Rights and Responsibilities for an Extension of an Incomplete.

An Incomplete shall not be used in calculating units attempted nor for grade points, but shall be used in calculating units for purposes of evaluating probation and dismissal.

Late Withdrawal. Late withdrawals are those requested by students after the last day for an official student or instructor initiated withdrawal and up until the first day of final examinations of the same semester. A late withdrawal will be granted only for verifiable extenuating circumstances that prevented the student from academic participation. Extenuating circumstances are defined as: institutional error, health, jury duty, military service, accident, family emergency, incarceration, extended litigation, or work conflicts that occurred only between the last day for a student- or instructor-initiated withdrawal and the final examination. For more information please consult with the Office of Student Affairs, Conlan Hall, Room 106.

“MW” Military Withdrawal. “Military Withdrawal” shall be assigned to students who are members of a reserve or active military unit and received orders to report to active duty, requiring a withdrawal from all courses. This does not apply to Basic Training assignments. The student must bring a copy of their orders to the Office of Admissions and Records located in Conlan Hall, Room E107, prior to departure, if possible, to have their military withdrawal processed. All courses will be withdrawn without fee assessment. Military Withdrawal does not count against a student for the purposes of progress probation and academic dismissal calculations.

“RD” Report Delayed. Only the Office of Admissions and Records may assign the “RD” symbol. This symbol is to be used when, for reasons beyond the control of the student, there is delay in reporting the student’s grade. “RD” is to be replaced by a permanent symbol as soon as possible. The “RD” symbol shall not be used in calculating units attempted, nor for grade points.

“W” Withdrawal. If a student withdraws from a class or if an instructor withdraws a student from a class between the last day to drop and the last day for withdrawal, a “W” symbol will appear on the student’s permanent record. (See Calendar of Instruction for specific dates.) If a student stops attending a class after the last day for a student-initiated or instructor-initiated withdrawal, the instructor must report a grade symbol (consistent with the grading policies) other than “W.”

The “W” symbol shall not be used in calculating units attempted nor for grade points, but shall be used in calculating units for purposes of evaluating probation and dismissal.

If a student drops a class prior to the last day to drop, no notation will appear on the student’s permanent record. (See Calendar of Instruction for specific dates.)

Excessive Withdrawals. Students who have withdrawn from the same course three times and received a “W” on his/her record will not be allowed to register for the same course without filing a Petition for Exemption to Withdrawal Policy. (California Code of Regulations, T5 Section 55024 (a))

Petitions for Exemption to Withdrawal Policy are available in the office of Student Affairs, Conlan Hall 106

Remedial Coursework Limitation

Remedial coursework is defined as credit, nondegree-applicable basic skills courses. Section 55035 of Title 5 of the California Code of regulations imposes a 30 unit limit on remedial coursework. Students are exempted from this limitation if they are enrolled in an ESL course or are identified by the district as having a learning disability. If neither of these exemptions apply, students who reach this 30 unit limit are restricted to taking only noncredit courses, nondegree-applicable courses which do not involve remediation, and those degree-applicable credit courses which do not have basic skills prerequisites or advisories on recommended preparation. It is our district's policy that students who have completed 30 units of remedial coursework shall be automatically given a 10 unit waiver of this limitation.

Course Prerequisites, Corequisites, and Advisories

City College has established prerequisites, corequisites, and advisories to maintain academic standards and ensure student success. The CCSF Governing Board recognizes that if these prerequisites are established unnecessarily or inappropriately, they constitute unjustifiable obstacles to student access and success. Therefore, the San Francisco Community College District, in compliance with Title 5 Matriculation Regulations, has adopted a policy to provide for the establishment, review and enforcement of prerequisites, corequisites, advisories on recommended preparation, and certain limitations on enrollment in a manner consistent with law and good practice. Elements of this policy follow:

Definition of Terms

Prerequisite: A condition to enrollment that a student is required to meet in order to demonstrate current readiness for a course or educational program. If a prerequisite is a course, a student must pass the prerequisite course with a grade of “C” or higher.

Corequisite: A course that a student must take concurrently with another course.
Below are the different types of pre/corequisites:

1. **Standard prerequisite or corequisite**: A pre/corequisite to a course, the equivalent of which is offered at three or more California State University and/or University of California campuses with an equivalent prerequisite.

2. **Sequential course within and across disciplines**: A course that serves as a pre/corequisite to an articulated course in the same discipline or in another discipline.

3. **Course in communication or computation skills**: A course in communication or computation skills that serves as a pre/corequisite to a course other than another communication or computation skills course.

4. **Placement level**: A Mathematics, English, or English as a Second Language course placement level determined by the College placement assessment process, which consists of the use of State-approved assessment instruments, validated cut-scores, and multiple measures.

5. **Program prerequisites**: A pre/corequisite to enrollment in a program such as Nursing, Culinary Arts and Hospitality Studies, or Aircraft Maintenance Technology.

6. **Health and safety**: A pre/corequisite to enrollment in a course or program in which health and safety of the student or others may be endangered if the pre/corequisite is not met.

7. **Recency**: A pre/corequisite skill-level that a student must possess within a specific time period prior to enrollment in a course or program.

**Advisories on Recommended Preparation**: A condition of enrollment that a student is advised, but not required, to meet before or concurrently with enrollment in a course or educational program. Students are strongly encouraged to follow the advisories since having the recommended preparation will greatly increase the likelihood of success in the target course.

**Limitation on Enrollment**: A condition of enrollment that a student must meet (in addition to any prerequisites and corequisites) prior to enrolling in the following types of courses:

1. **Performance courses**: Courses in this area include intercollegiate athletics, theatre arts (drama), and music, for which an audition or tryout may be required.

2. **Honors courses**: These courses require a specific scholastic aptitude prior to enrollment.

3. **Blocks of courses or sections**: a “block” refers to at least two or more courses or sections of courses in which enrollment is limited to a specific group of students. Examples at CCSF include the African American Achievement Program and the Puente Project.

**Challenge of a Prerequisite or a Corequisite**

A student who does not meet a stated prerequisite or corequisite to a course may be dropped on the first day of school. However, the student may file a petition to Challenge a Prerequisite or Corequisite on one or more of the grounds listed below. The student shall bear the initial burden of showing that grounds exist for the challenge. Challenges shall be resolved in a timely manner and, if the challenge is upheld, the student shall be permitted to enroll in the course or program in question.

**Grounds for challenge**:

A. **The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite.**

B. **The student possesses the skills/knowledge necessary to protect the health or safety of himself and others despite not meeting the stated health and safety prerequisite.**

C. **The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner.**

D. **The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite course has not been made reasonably available.**

E. **The prerequisite or corequisite has not been established in accordance with the District's process for establishing prerequisites or corequisites.**

F. **The prerequisite or corequisite is in violation of Title 5.**

Any student may appeal the decision of the challenge to the Office of the Vice Chancellor of Academic Affairs or the Vice Chancellor of Student Development.

**Procedures for Filing a Petition to Challenge a Prerequisite/Corequisite**

**CAUTION**: The student shall demonstrate that grounds exist for the challenge. A student who wishes to challenge a prerequisite/corequisite should file a petition as early as possible prior to the first day of class.

**Instructions**:

1. Obtain a **Petition to Challenge a Prerequisite or Corequisite** from the Office of Matriculation Services (Conlan Hall, Room 204) or the chair of the department of the course.

2. The student should file the completed petition at the appropriate department office (see the petition form) as early as possible before the first day of school, but must file no later than the end of the add/drop period. The department office will give the student a date-stamped copy of the petition and provide him/her with a decision by the end of the add/drop period.

3. If the challenge is upheld, the student will be eligible for the course; the student should retain the approved petition as proof of his/her eligibility. If the challenge is denied, the student will not be eligible for the course and will be required to drop if he/she has already registered for the course.

4. The student must file the approved petition to the Office of Matriculation for final processing. The department will keep a copy of the petition for its own records.

5. A student may appeal a decision to the Vice Chancellor of Student Development or the Vice Chancellor of Academic Affairs.

**Challenge of a Limitation on Enrollment**

Any limitation on enrollment may be challenged by a student on the grounds listed below. The student shall bear the initial burden of demonstrating that grounds exist for the challenge. The District shall resolve the challenge in a timely manner. If the challenge is upheld, the student shall be allowed to enroll in the course. If no space is available in the course when a challenge is filed, the challenge shall be resolved prior to the beginning of registration for the next term.

**Grounds for Challenge of a Limitation on Enrollment**

A student may challenge a limitation on enrollment in a course if:

A. the course is required in order for the student to receive a degree or certificate and no other course is offered during the semester of the challenge to meet the requirement, and

B. the student's graduation from the degree or certificate program will be delayed if (s)he is unable to enroll in the course during the semester of the challenge.

**Procedure for Challenging a Limitation on Enrollment**:

1. Obtain a **Petition to Challenge a Limitation on Enrollment** from
Academic Probation:

1. The student should file the petition with the department chair prior to the first day of class, but must file no later than the end of the add/drop period in order for the petition to be considered.

2. The student must attach a current CCSF Student Educational Plan indicating that the course is required to receive a degree or certificate. The student must prove that his graduation will be delayed by one or more semesters if s/he is not allowed to enroll in the course. The department chair will retain a copy of the petition and forward a copy to the Office of Matriculation Services.

3. The department chair will provide the student with a decision by the end of the add/drop period and give the student a copy of the decision if the challenge is denied, the student will not be eligible for the course and will be dropped if already enrolled in the course.

4. The student may appeal the department chair's decision to the Dean of Matriculation Services.

Grades and the Grade Point Average

A student's grade point average (GPA) shows numerically the relationship between the number of units attempted and the grade points received. It may be determined by dividing the number of grade points earned by the number of units attempted. Grades of P, NP, W, I, IP, EX and MW do not affect a student's grade point average. A 4.00 quotient indicates an A average; 3.00, a B average; 2.00, a C average; 1.00, a D average; 0.00, an F average.

Students grade point averages are used in various ways. For example, a requirement for graduation from the College is that a student must have completed a minimum of 60 semester units of lower-division college work in which he has maintained an average final grade of C (2.00 grade point average) or higher in all lower-division courses he has attempted for grade points. The College also uses grade point averages in awarding various scholarships and in determining whether students may be disqualified from further attendance because of scholastic deficiencies. In addition, universities and colleges use grade point averages in admitting transfer students.

All credit courses offered by City College of San Francisco are graded courses as defined by Title 5, California Administrative Code.

Academic Probation and Dismissal

Probation:

There are two types of probation: academic and progress. A student may be on either type of probation or on both. If a student is on either type of probation or on both,

- there will be a permanent notation placed on the student's academic history.
- a student will not be in good academic standing at the College;
- the student will not be removed from probation until there is improvement in the overall academic record, even if there is improvement in the current semester academic record.

Students on probation may be contacted by a CCSF counselor so that they may be provided individual counseling and guidance on how to improve their academic standing. The students' programs may be regulated so as to help them move off probation.

Academic Probation: A student who has attempted at least 12 units as shown on the official academic record will be placed on academic probation if the student has earned a grade point average below 2.00 in all units in which grades were given.

Progress Probation: A student who has attempted at least 12 units as shown on the official academic record will be placed on progress probation when the percentage of all units in which a student has enrolled and for which the student has been given a "W," an "INC.," or a "NP" is 50% or more.

Removal from Probation: For removal from academic probation, a student must have an overall cumulative grade point average in all City College units of 2.00 or higher. For removal from progress probation, a student must have been given marks of "W," "INC.," or "NP" in less than 50% of all City College units in which the student has enrolled.

Dismissal:

Academic Dismissal: A student who has been on probation is subject to academic dismissal if the student has been on either academic probation or on progress probation or on both academic and progress probation for more than four consecutive semesters. If students are academically dismissed, a notation of "Academic Dismissal" will be placed on the permanent academic record. Consecutive semesters means four semesters in a row of the student's attendance at City College. Summer sessions are not counted as regular semesters when semesters are being counted for academic dismissal.

Appeal of Academic Dismissal and Request for Reinstatement:

Students may appeal academic dismissal and petition to be reinstated so they may continue their enrollment. Such petitions will be considered in cases of verified unusual circumstances. Students may request information or a Petition to Appeal Academic Dismissal and Request Reinstatement from the Office of Student Advocacy, Rights and Responsibilities (Conlan Hall, Room 106). If students are reinstated, their reinstatement will be conditional based upon a review of the academic record at the end of each semester. Readmitted students will be subject to the continued requirements of the academic probation and academic dismissal regulations.

Financial Aid Probation: The rules for financial aid probation, academic progress, or disqualification may be different. Please see the appropriate section in the Catalog under Financial Aid.

Grade Reporting

Midterm Grades and Final Grades are made available to students through WEB4 at http://www.ccsf.edu.

Repetition of Credit Courses

Repetition of credit courses is allowed under the following general circumstances:

1. When the course has been designated as repeatable.
2. When repetition is necessary to meet a legally mandated training requirement as a condition of continued paid or volunteer employment.
3. To allow a student to alleviate a substandard grade of D, F, NP, or NC.
4. When the district determines that there has been a significant lapse of time since the course was taken.
5. When the district finds that the student's grade is, at least in part, the result of extenuating circumstances.
6. When the student is repeating a course in occupational work experience.
7. When a student with a disability is repeating a special class for students with disabilities.

Details of each circumstance are included below.

Before repeating any course, it is required that a student seek the advice of his or her counselor. In some cases, a course cannot be repeated more than twice without the advice and approval of the department's faculty advisor or the department chair. Students should be aware of the following:
1. When a student repeats a course, the original grade is not removed and therefore remains a part of the permanent record.
2. When a student repeats a course in which he or she has received a grade, any withdrawal with a "W" or "MW" counts as a repetition.
3. When a student repeats a course to alleviate a substandard grade of D or F, the original grade will not be used in calculating the student's CCSF grade point average. The original grade is not removed and remains a part of the permanent record.
4. When a course is repeated, the latest grade will count for the purposes of GPA calculation even if it is lower than the original (except for "notion only").
5. When a student repeats a course in which he or she has received a passing grade (for example, because of a significant time lapse) the student will not receive a second grade or a second set of units unless the course has been designated as repeatable. The notation "Post Grade Only" will be used instead.
6. Course repetition may affect a student's financial aid or other benefit status. Please check with the appropriate office.
7. Some transfer institutions, unlike CCSF, may calculate all grades in the overall grade point average.
8. Students may repeat a course even after graduation from CCSF.
9. Courses that were excluded through the Academic Renewal process are counted in the course repetition limitations.

Petitions for Course Repetition are available in the Office of Student Affairs, Conlan Hall, Room 106.

Repeatability Courses

There are two types of courses that may be designated as repeatable: courses with variable content and activity courses. Repeatable courses are identified in the College Catalog, along with their repetition limits. Students do not need to file a petition to re-take a repeatable course.

Courses with Variable Content are defined as courses in which the essential course content changes substantially from one time of offering to the next. There are two allowable types of variable content courses: Umbrella courses and Independent Studies courses. Umbrella courses consist of an umbrella and a series of lettered topical courses. For example, ENGL 48 is the umbrella for ENGL 48A, 48B, 48C, etc. A student may take any and all of the topical courses under an umbrella, but cannot repeat the same topical course. Independent Studies courses allow a student to conduct special studies or research on a topic in his or her major and to receive units for such studies or research.

Activity Courses are those courses where the student meets course objectives by repeating a similar primary educational activity and the student gains an expanded educational experience each time the course is repeated for one of the following reasons:

- Skills or proficiencies are enhanced by supervised repetition and practice within class periods; or
- Active participatory experience in individual study or group assignments is the basic means by which learning objectives are obtained.

Activity courses include, but are not limited to, courses in physical education, visual or performing arts in music, fine arts, theater, or dance. Courses in foreign languages, ESL, and nondegree-applicable basic skills courses cannot qualify as activity courses. Repeatability for an individual course is requested by the department, approved by the Curriculum Committee, and printed in the Catalog. If the department has several levels of a course with similar educational activities, the repetition limit applies across all levels, regardless of whether the repetition reflects multiple enrollments in a single course or multiple courses.

Special note on courses in the Performing and Visual Arts: In order to allow students who are planning to transfer in the Performing and Visual Arts to maintain proficiency until such time as they transfer, City College policy will allow extended repeatability for the Performing and Visual Arts courses identified by the departments and approved by the Curriculum Committee. Three conditions must be satisfied:

(a) A Performing and Visual Arts course must be one that develops a professional/vocational skill in the Arts and there must be a reasonable expectation that transfer opportunities exist in that skill.

(b) A Performing and Visual Arts skill may not be subdivided into more than three course levels (beginning, intermediate, and advanced) and may not have more than one course per level. The extended repeatability will consist of a maximum of one repeat at the beginning level and a maximum of three repeats at each of the intermediate and advanced levels.

(c) The concept of satisfactory progress described above must be built into any Performing and Visual Arts course using the extended repeatability. A department may not allow a student to repeat a course unless there is evidence that satisfactory progress is being achieved by the student. In the event that a student exhausts this extended repeatability prior to transferring, the student may, with departmental approval, apply to the Vice Chancellor of Academic Affairs for a waiver of the Performing and Visual Arts repeatability limits.

Legally Mandated Training Requirement

Students may repeat a course when repetition is necessary to meet a legally mandated training requirement as a condition of continued paid or volunteer employment. Students may repeat these courses any number of times. Students wishing to repeat a course to meet a legally mandated training requirement must file a Petition for Course Repetition so that they can provide documentation of the requirement for training.

Alleviating Substandard Coursework

Students receiving a substandard grade of D, F, NP, or NC may repeat a course up to two times in an effort to alleviate the substandard grade. Students do not need to file a Petition for Course Repetition in this situation. Any repetition that results in a letter grade, or a withdrawal resulting in W or MW, counts towards this two repetition limit.

Significant Lapse of Time

A student receiving a satisfactory grade may repeat a course if the district determines that there has been a significant lapse of time since that grade was obtained. This section applies when any of the following conditions are met:

1. A recency prerequisite has been established for a course or a program.
2. Another institution of higher education to which the student seeks to transfer has established a recency requirement which the student will not be able to satisfy without repeating the course in question.
3. The student petitions, and the department chair approves, that a significant lapse of time has occurred. In determining whether the length of time that has lapsed is significant, department chairs should take into account situations such as:
   - There is a set of sequentially based courses, and the student may be unable to complete the subsequent level due to the length of time since taking the prior course in the sequence. This may...
include, but is not limited to, courses in foreign languages, mathematics, and science.

- The course content has been revised or updated since the last time the student took the course. This may include, but is not limited to, technology-related courses where the underlying technology has changed since the prior enrollment.

Students must complete a Petition for Course Repetition to repeat a course due to significant lapse of time. This option may also be available to students who have exhausted the maximum number of repetitions of a repeatable course; in such a situation, the student is limited to one additional repetition.

Extenuating Circumstances

Students may repeat a course when the district approves that their previous grade, whether satisfactory or substandard, was, at least in part, the result of extenuating circumstances. Extenuating circumstances are verified cases of accidents, illness, or other circumstances beyond the control of the student. Students must complete a Petition for Course Repetition and provide documentation of the extenuating circumstances.

Occupational Work Experience

Departments offering occupational work experience courses can be designated as repeatable, upon approval of the Curriculum Committee, up to a maximum of 16 units. The repetition limit for a particular occupational work experience course is printed in the College Catalog. Grades received in all repetitions of an occupational work experience course will be counted in calculating the grade point average.

Students with Disabilities

The Disabled Students Programs & Services Department is allowed to offer special classes with content that addresses the educationally-related functional limitations of students with disabilities pursuant to Title 5 of the California Code of Regulations and state and federal non-discrimination laws. Any number of repetitions of these classes may be allowed as a disability-related accommodation based on an individualized determination by the Disabled Students Programs & Services Department that one of the following circumstances applies:

(a) When continuing success of the student in other general education and/or special classes is dependent on additional repetitions of a specific special class;
(b) When additional repetitions of a specific special class are essential to completing a student's preparation for enrollment into other regular or special classes; or
(c) When the student has a student educational contract which involves a goal other than completion of the special class in question and repetition of the course will further achievement of that goal.

Students enrolled in these courses may repeat them without petition.

Academic Renewal/Exclusion

A student may petition to have previous substandard college grades of "D" or "F" excluded from grade point average calculations if that work is not reflective of the student’s present level of performance. However, to ensure a true and complete academic record, the permanent academic record will show all of the student's course work, including excluded classes.

A request for academic renewal will be granted under the following conditions:

1. A student must have completed at an accredited college at least 24 degree-applicable semester units with a grade point average of at least 2.0 or 12 semester units with a grade point average of at least 3.0. These units must be earned subsequent to the last grade of “D” or “F” to be excluded.
2. At least one year must have elapsed since the last "D" or "F" grade to be excluded.
3. A maximum of 24 units can be excluded from the grade point average, and academic renewal will only be granted once.
4. A student's official transcript will include a notation of when the request for academic renewal was granted as well as the fact that grades from other institutions may have been used to satisfy the requirements for academic renewal.

The petition for Academic Renewal/Exclusion may be picked up at the Admissions and Records Office, Conlan Hall, Room 107.

Students are reminded of the following:

- Only courses taken at City College qualify for academic renewal.
- Some destination transfer institutions may not accept academic renewal and may recalculate the grade point average. Students who plan to transfer to other institutions should contact the receiving transfer institution and ask how they apply grade exclusions (academic renewal).
- Once an Associate degree has been awarded at City College, courses taken prior to the awarding of the degree cannot be excluded.
- Transcripts from only accredited institutions will be accepted.

Students who wish to have grades excluded under the Academic Renewal Policy must request a petition from the Office of Admissions and Records. Since academic renewal will be granted only once, students considering the petition are advised to file the petition at a time close to their graduation or transfer. Because Academic Renewal may affect educational goals (such as graduation and transfer), students must see their counselors for assistance with the Academic Renewal petition which requires a counselor signature.

Changing Final Grades

An instructor may not change any final grade, except that of Incomplete, on the basis of additional work completed by a student after the close of a semester.

Academic Transcript of Records

A student may obtain an official or unofficial academic transcript of records through the online self service option available on the CCSF Home Page. See below for instructions on how to request for both types of transcripts.

For official transcripts:

- Click the myCCSF link located on CCSF home page.
- Under the For Students column, click on WEB4 link.
- Log in with your student 10 number and PIN number.
- Click on Student Services and Financial Aid.
- Click on Student Records.
- Click on Order Your Official Transcript.
- Read and follow the instructions on each page carefully.
- Submit your order. If payment is required, follow directions for submitting payment.

For free unofficial transcripts:

- Click the myCCSF link located on the CCSF homepage.
- Under the For Students column, click on WEB4 link.
- Log in with your student 10 number and PIN number.
- Click on Student Services and Financial Aid.
- Click on Student Records.
- Click on Academic Transcript.
- Click the Submit Button.
To print a copy of your unofficial transcript, use your browser print option.

* If you forgot your PIN number, enter your student ID as an option your SSN, click on the “I forgot my PIN” button. You will be required to answer your personal question. If you do not remember your answer, click on the “Forgot Answer” link. A replacement PIN will be sent to your on file. For questions, please email corrects@ccsf.edu.

If you have records predating Fall 1998 and the system cannot locate you, a written request may be submitted to the Transcripts Office:

CCSF
Attn: Transcript Office
50 Phelan Avenue, Conlan Hall E107
San Francisco, CA 94112

When requesting an Academic Transcript of Record the following information must be included:

- Student's full name while attending CCSF
- Current mailing address
- Telephone number
- Present full name if different while attending CCSF
- Birth date
- CCSF Student ID number
- Date last attended at CCSF, i.e. Spring 1998
- First Date of attendance at CCSF, i.e. Fall 1996
- Where the Academic Transcript of Record is to be mailed
- When the Academic Transcript of Record should be sent, i.e., after this semester's grades are posted, after degree/certificate has been posted
- A listing of all courses currently in progress at CCSF
- Number of copies requested
- Student's signature
- Date

It is strongly recommended that students wishing to transfer to another college/university complete and submit a request well in advance of the date in which the transcript is needed. Processing time during peak periods may take up to four (4) weeks. Academic transcripts are reviewed and processed as they are submitted.

Processing Fee
The first two requested official and/or unofficial Academic Transcript of Records are free of charge. A processing fee of $5.00 is assessed for each transcript after the first two.

Rush Service
Students may contact the Transcript Department and request Rush Services for the issuance of Academic Transcript of Records. Normal processing time for this service is 2 or 3 business days and 4 or 5 business days during peak period. The fee for this service is $10.00 per requested copy.

Transfer of Grade Points to City College
City College counts the grade point average of transferable units earned at other universities or colleges toward the combined grade point average of 2.0 required for graduation. The combined grade point average takes into account both the cumulative grade point average at City College of San Francisco and the grade point average of transferable units.

Transfer of Coursework to City College
Students may use coursework completed at other institutions to fulfill program, general education, and/or elective unit requirements for the Associate Degree or certificate programs at City College of San Francisco. Specifically, students may use lower and/or upper division transfer coursework to fulfill any or all of the following:

- specific program requirements for a certificate, or major
- general education graduation requirements
- unit requirement for graduation (minimum of 60 semester units)

The unit requirement may be met with courses from regionally accredited (e.g., accredited by Western Association of Schools and Colleges) colleges or universities. Students are subject to the residence requirement for the Associate Degree, regardless of the number of units transferred into the college.

Program and general education requirements must be evaluated through the course equivalency process. Course equivalency is determined by the chair(s) of the department(s) offering comparable courses, and is communicated by them to the Office of Admissions and Records (A&R) via the “Evaluation of Course Equivalency” form. Student inquiries with either a specific department or with A&R should occur prior to petitioning for graduation.

Credit by Examination
According to Section 55050 of Title 5 of the California Code of Regulations, community college governing boards are authorized to grant credit by examination, under certain circumstances:

a. City College of San Francisco may grant credit to any student who satisfactorily passes an examination approved or conducted by proper authorities of the college. Such credit may be granted only to a student who is registered at the college and in good standing and only for a course listed in the college catalog.

b. The student's academic record shall be clearly annotated to reflect that credit was earned by examination.

c. Units for which credit is given shall not be counted in determining the minimum 12 semester hours of credit that must be taken at CCSF to meet the residence requirement. (See Associate Degree Graduation Requirements.)

1. Credit by CCSF Examination
Students may be eligible for credit by examination if they are enrolled and in good standing, have not earned a grade point average below 2.00, and have not attempted the course. Permission to challenge a course by examination is granted by the appropriate department chair, who also determines which courses are eligible for credit by examination. The department offering a course which may be taken for credit by examination will determine the type of examination to be given and the conditions of its administration. Credit by exam may not be available in all CCSF departments.

Students may petition for credit by examination for selected courses offered at City College of San Francisco in accordance with the following policies and procedures:

1. Determination of eligibility for credit by examination:

a. The student must currently be enrolled in City College.

b. All enrollment and or nonresident tuition fees must be paid in full and any holds on registration must be cleared prior to petitioning for credit by examination.

c. The student must be in good standing, and cannot be on academic or progress probation.

d. The student must meet the requirements for the individual course as specified in the current City College catalog.

e. The student may not have already completed nor currently be enrolled in a course more advanced than that for which credit by examination is requested.
f. The student must not have previously enrolled in and received an evaluative symbol (e.g., letter grade, W, P/NP) for the course for which credit by examination is requested.

g. The student must not have previously attempted the course credit by examination and failed.

2. Maximum credit allowable:

a. The maximum number of units creditable by examination toward the Associate degree is 45 semester units.

b. A student will not be permitted to receive a certificate or an associate degree using credit by examination for more than three quarters of the units completed at City College.

c. A student will not be permitted to fulfill the general education or major requirements for the Associate degree using credit by examination for more than three quarters (75%) of the units completed at City College.

3. Limitations:

a. Credits awarded by examination are not applicable in meeting unit load requirements for veterans or social security benefits, scholastic honors, financial aid, or graduation residency requirements.

b. Only one course in a direct series of courses may be awarded credit by examination, e.g., MATH 90, MATH 95, or MATH 110A or MATH 110B, not more than one of these courses. A student with the appropriate knowledge may take the examination in MATH 110B and receive four semester units for this course; however, the student cannot take examinations in all four courses above and be awarded 16 semester units of credit by examination. (The Allied Health and Nursing Programs are exempted from this policy.)

c. Students who plan to transfer to another college or university are advised that other institutions may have restrictions on how they accept credit by exam.

d. Credit by examination is awarded the grade of "P" (pass) or "NP" (no pass), which does not factor into the student's cumulative G.P.A.

4. Process to petition:

a. Contact department chair to inquire if credit by exam is available for the course.

b. Complete Petition for Credit by Examination form.

c. Pay fee. Note: The fee for credit by exam will not be more than the current enrollment fee for the course.

d. Take the examination given by the department chair or designee.

5. Transcript: A grade of "P" (pass) or "NP" (no pass) will be noted on the student's transcript at the end of the semester.

2. Credit by AP and CLEP Examinations

Currently enrolled students who have completed a minimum of 12 units at CCSF, have earned a grade point average of 2.00 or better, and have not attempted the courses are eligible to be considered for credit by AP and CLEP examination.

1) Advancement Placement Test (AP)

City College will grant subject credit for most College Board Advanced Placement examinations, depending on the exam score obtained by the student. Credit awarded by CCSF applies to the associate degree. Transfer students must consult with senior colleges and universities to determine how AP credit will be awarded by the receiving institution.*

*See table for City College equivalencies for AP scores

2) College Level Examination Program (CLEP)

City College will grant general credit toward graduation for CLEP examinations. CCSF offers elective credit for many exams in the areas of History and Social Sciences, and Science and Mathematics. Generally, students must pass the examinations with a score of 50 or above (Computer Based Testing). California State University (CSU) will accept certain CLEP exams to meet statewide general education requirements (CSU to UC transfer students should check with their specific UC campus regarding the acceptability of AP and CLEP credit, or should consult a CCSF counselor.)

Credit by Petition for Noncredit Courses

Effective July 1, 2009, Credit by Petition for Noncredit Courses is no longer available, regardless of when the noncredit courses were completed. Students who wish to receive credit for knowledge or skills attained in noncredit courses may be able to use the Credit by Examination process. Credit awarded to students who petitioned prior to July 1, 2009 will continue to be honored.

Dean's Honor List

In the fall and spring semesters, the College recognizes students who have attained high scholastic achievement. Students registered for and completed a minimum of twelve (12) semester units for the semester (only those courses where A–F grades were assigned are counted) with a grade point average of 3.30 or higher, and are in good academic standing are placed on the Dean's Honor List. Good academic standing is defined as having a cumulative grade point average of 2.00 or higher and not being on academic and/or progress probation. If a student is on the Dean's Honor List, it will be noted on the student's unofficial/official transcript.

Graduation with Honors

Students who have maintained a grade point average between 3.30 and 3.49, inclusive, will be graduated with honors. Those who have maintained a grade point average between 3.50 and 3.74, inclusive, will be graduated with high honors. Those who have maintained a grade point average between 3.75 or higher will be graduated with highest honors. In determining whether students will qualify for honors at graduation, the Office of Admissions and Records does not count units, grades, or grade points earned in physical education. If a student graduates with Honors, a notation will be placed on the student's unofficial/official transcript.

Students with transferable units from another accredited college or university will have the grade point units earned count toward graduation with honors. Such students, however, will not be granted higher honors than those earned at City College of San Francisco. Students should arrange to have transcripts from other colleges or universities sent to the Office of Admissions and Records in order to have transferable units counted toward graduation with honors.
Student's Responsibility for Satisfying Academic Requirements

Although counselors and advisers assist students in planning their programs, each student must assume complete responsibility for compliance with the instructions and regulations set forth in this catalog and for selecting the courses that will enable him/her to achieve his/her educational objective, whether it be graduation from the College, satisfaction of requirements for transfer to another college or a university, or preparation for an occupation.

Prerequisite Courses. A student may not enroll in a course that is a prerequisite to a course he/she has already completed. Each student is responsible for satisfying prerequisites for the courses included on the study list. For information concerning prerequisites, students should refer to the course information in this catalog in the section entitled "Announcement of Programs and Courses."

A student may not receive credit for any course which is prerequisite to any course already taken.

Field Trips. Field trips are required in a number of the courses offered by the College. Instructors in these courses provide information pertaining to such trips.

Final Examinations. Final examinations are required of all students in all courses except physical education activity courses. Final examinations must be given on the dates and at the times shown on the official schedule and in the classrooms or laboratories in which the classes normally meet. This schedule is published in the Class Schedule. Students are required to take final examinations with the section in which they are enrolled. There are two exceptions to this policy: 1) A department, with the Vice Chancellor of Academic Affairs's approval, can schedule a common date, time, and place for all sections of a course to take a common examination; 2) The Vice Chancellor of Academic Affairs can approve an alternate examination schedule for a course in cases of emergency or necessity.

English Placement Information

Students who wish to enroll in English courses at CCSF must take the CCSF English Placement test first. Call the Testing Office @ 415 239-3129 for information.

Students requesting exemption/waiver from the testing process based on SAT/AP test scores should go to the Matriculation Office, Conlan Hall 204. Students who have taken courses at any California Community College, CSU or UC should take their transcript to the Matriculation office. Students from colleges outside of California or from private colleges seeking exemption/Waiver from the testing process should see the English Eligibility Coordinator in Batmale Hall 514.

Courses below English 1A or placement tests from other institutions are not accepted as prerequisites for CCSF English courses. Transfer students who enrolled in but did not successfully complete English 1A (or the college-level transfer course in composition) must take the English Placement test to enroll in English classes at CCSF.

The English Eligibility Coordinator, in consultation with the Department Chair, will rule on all matters of equivalency in connection with English courses students have taken elsewhere.

English Eligibility Essay Exam

The English Eligibility Essay Exam is given during the fall and spring semesters only, usually after the midterm exam period. Students who wish to challenge their English Placement test results, or students who wish to jump a course in the sequence may take this exam for eligibility into a course in the sequence. Students must finish the English course they are currently enrolled into be eligible. For information, contact the English Eligibility Coordinator, Batmale 514. (415) 239-3574. Or see the English Department Website, www.ccsf.edu/Departments/English under Students.
CCSF Credit For Advanced Placement Test Scores

CCSF's Advanced Placement Examination Policy may differ from that of other colleges and universities. Transfer students should consult with each institution regarding the awarding of units and course equivalencies for Advanced Placement test credit. Failure to do so may lead to education planning errors that may delay students' time to transfer. For more information, see your counselor.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Score</th>
<th>CCSF General Education</th>
<th>CCSF Units Awarded</th>
<th>Course Equivalence - Only if needed for CCSF Major or Certificate Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art History</td>
<td>3/4/5</td>
<td>Area E</td>
<td>3</td>
<td>Art 101</td>
</tr>
<tr>
<td>Studio Art: Drawing</td>
<td>3/4/5</td>
<td>Area E</td>
<td>3</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Studio Art: 2-D</td>
<td>3/4/5</td>
<td>Area E</td>
<td>3</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Studio Art: 3-D</td>
<td>3/4/5</td>
<td>Area E</td>
<td>3</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Biology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>3/4/5</td>
<td>Area C</td>
<td>4</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Chemistry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>Area C</td>
<td>5</td>
<td>Chem 101A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>4/5</td>
<td>Area C</td>
<td>5 &amp; 5</td>
<td>Chem 101A &amp; 101B</td>
</tr>
<tr>
<td>Computer Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS “A” test</td>
<td>3</td>
<td>Area A</td>
<td>3</td>
<td>CS 111A or 110A</td>
</tr>
<tr>
<td>CS “A” test</td>
<td>4/5</td>
<td>Area A</td>
<td>3&amp;3</td>
<td>CS 111A or 110A &amp; CS 111B</td>
</tr>
<tr>
<td>CS “AB” test</td>
<td>2</td>
<td>Area A</td>
<td>3</td>
<td>CS 111A or 110A</td>
</tr>
<tr>
<td>CS “AB” test</td>
<td>3</td>
<td>Area A</td>
<td>3&amp;3</td>
<td>CS 111A or 110A &amp; CS 111B</td>
</tr>
<tr>
<td>CS “AB” test</td>
<td>4/5</td>
<td>Area A</td>
<td>3&amp;3&amp;3</td>
<td>CS 111A or 110A &amp; CS 111B &amp; CS 111C</td>
</tr>
<tr>
<td>Economics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3/4/5</td>
<td>Area D</td>
<td>3</td>
<td>Econ 1</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3/4/5</td>
<td>Area D</td>
<td>3</td>
<td>Econ 3</td>
</tr>
<tr>
<td>English</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language &amp; Composition</td>
<td>3/4/5</td>
<td>Area B</td>
<td>3</td>
<td>English 1A</td>
</tr>
<tr>
<td>Literature &amp; Language Comp.</td>
<td>3/4</td>
<td>Area B</td>
<td>3</td>
<td>English 1A</td>
</tr>
<tr>
<td>Literature &amp; Language Comp.</td>
<td>5</td>
<td>Area B</td>
<td>3&amp;3</td>
<td>English 1A &amp; 1B</td>
</tr>
<tr>
<td>Environmental Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3/4/5</td>
<td>Area C</td>
<td>4</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Geography</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Geography</td>
<td>3/4/5</td>
<td>Area D</td>
<td>3</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Government and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>3/4/5</td>
<td>Area D or F</td>
<td>3</td>
<td>Pols 1</td>
</tr>
<tr>
<td>Comparative</td>
<td>3/4/5</td>
<td>Area D</td>
<td>3</td>
<td>Pols 2</td>
</tr>
<tr>
<td>History</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. History</td>
<td>3/4/5</td>
<td>Areas D &amp; F</td>
<td>3&amp;3</td>
<td>Hist 17A &amp; 17B</td>
</tr>
<tr>
<td>European History</td>
<td>3/4/5</td>
<td>Areas D &amp; E</td>
<td>3&amp;3</td>
<td>Hist 4A &amp; 4B</td>
</tr>
<tr>
<td>Language other than English</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3/4/5</td>
<td>Areas A &amp; E</td>
<td>6</td>
<td>Take Foreign Language Placement Test and Consult with Department Chair</td>
</tr>
<tr>
<td>French Language</td>
<td>3/4/5</td>
<td>Areas A &amp; E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td>French Literature</td>
<td>3/4/5</td>
<td>Area E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td>German Language</td>
<td>3/4/5</td>
<td>Areas A &amp; E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>3/4/5</td>
<td>Areas A &amp; E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td>Japanese Language &amp; Culture</td>
<td>3/4/5</td>
<td>Areas A &amp; E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td>Subject</td>
<td>Score</td>
<td>CCSF General Education</td>
<td>CCSF Units Awarded</td>
<td>Course Equivalence - Only if needed for CCSF Major or Certificate Program</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------</td>
<td>------------------------</td>
<td>--------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Russian Language &amp; Culture</td>
<td>3/4/5</td>
<td>Areas A &amp; E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3/4/5</td>
<td>Areas A &amp; E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3/4/5</td>
<td>Area E</td>
<td>6</td>
<td>See above</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>Area A &amp; Math Grad. Requirement</td>
<td>3</td>
<td>Math 100A</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>4/5</td>
<td>See above</td>
<td>4 or 3</td>
<td>Math 110A or Math 100A</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3/4</td>
<td>See above</td>
<td>4 or 3</td>
<td>Math 110A or Math 100A</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>5</td>
<td>See above</td>
<td>(4 &amp; 4) or 3</td>
<td>(Math 110A &amp; 110B) or Math 100A</td>
</tr>
<tr>
<td><strong>Music</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory</td>
<td>3/4/5</td>
<td>Area E</td>
<td>5</td>
<td>None</td>
</tr>
<tr>
<td><strong>Physics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physics B</td>
<td>3/4/5</td>
<td>Area C</td>
<td>3</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Physics C Mechanics</td>
<td>3/4/5</td>
<td>Area C</td>
<td>3</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td>Physics C Elect. &amp; Magnetism</td>
<td>3/4/5</td>
<td>Area C</td>
<td>3</td>
<td>Consult with Department Chair</td>
</tr>
<tr>
<td><strong>Psychology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>3/4/5</td>
<td>Area D</td>
<td>3</td>
<td>Psyc 1</td>
</tr>
<tr>
<td><strong>Statistics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>Area A &amp; Math Grad. Requirement</td>
<td>3</td>
<td>None</td>
</tr>
<tr>
<td>Statistics</td>
<td>4/5</td>
<td>See above</td>
<td>4</td>
<td>Math 80</td>
</tr>
</tbody>
</table>
The faculty and administration at City College of San Francisco consists of more than 1,500 men and women chosen for their training and competence. Because City College is a community college, offering instruction to meet the educational needs of both its students and the community, its teaching staff is necessarily diverse. It includes, for example, philosophers and nurses, historians and executive chefs, artists and criminologists, linguists and chemists, engineers and ornamental horticulturists, geologists and broadcasters, mechanics and biological scientists, welders and computer programmers, political scientists and printers, dentists and accountants, carpenters and physicists, tailors and journalists, specialists in literature and radiologic technicians.

**Diverse Backgrounds**

They bring to their students extensive backgrounds gained through years of study and research in the United States and in foreign countries; and through extensive experience in business, industry, education, travel, the Armed Forces, and government service. Many are prominent in the life of the community. Others are officers and policy makers in professional organizations. A number are authors of nationally and internationally used texts in their fields. And a surprisingly large number have done pioneer work in developing special courses and curricula.

**Interest in Students**

This diversity in the backgrounds and professional interests of faculty members has made a considerable contribution to the College and the community. The outstanding characteristic of the faculty, however, is neither its diversity nor its acknowledged competence, but rather a common interest in students—through teaching and its closely related activity, guidance. For these are the principal functions of the College, as they have been from its founding more than six decades ago. The College offers many advantages, but it can offer none more important than the interest of instructors and counselors in those whom they teach and advise. Without it, the most impressive and lavishly endowed college is educationally valueless. It is the quality from which students at the College benefit most.

It is the quality most emphasized throughout the College; for instructors spend the major portion of their time working directly with students—in classrooms, in laboratories and offices, on the campus, and in the field—so that the men and women entrusted to their care may acquire knowledge, skills, and understanding that will enable them, in the years ahead, to lead lives that are both useful and rich.

**Regular Faculty and Administrators**

**A**

- **ABEL, JENNIFER**, *English as a Second Language*
  M.A., San Francisco State University; B.A., Diploma, University of Cape Town, South Africa

- **ABENSOHN, STEVEN L.**, *Computer Science*
  B.A., University of Pennsylvania; M.S., University of California, Berkeley; M.S., San Francisco State University

- **ABMA, DEANNA**, *Director, Articulation*
  B.S., California State Polytechnical University, Pomona; M.S.W., San Diego State University

- **ADAMS, MARY**, *Social Sciences/History*
  B.A., M.A., Ph.D., University of California, Berkeley

- **AGUIAR, GLENN E.**, *Mathematics*
  B.A., San Francisco State University; M.S., University of California, Berkeley

- **AKANA, SUSAN**, *Biological Sciences*
  B.A. University of California, Santa Cruz; Ph.D. University of California, Berkeley

- **ALANIZ, MICHELE**, *Library and Learning Resources*
  B.A., University of California, Berkeley; MLIS, San Jose State University

- **ALARI, DOMINIQUE**, *English as a Second Language*
  M.A., San Francisco State University; B.A., University of California, Santa Cruz

- **ALFARO, TED**, *Director, Student Advocacy Rights and Responsibilities*

- **ALIOTO, DARLENE F.**, *Department Chair, Social Sciences*
  B.A., University of San Francisco; M.A., San Francisco State University

- **ALIOTO, KATHLEEN SULLIVAN**, *Dean, College Development*
  Ed.D., Harvard University; B.A., Manhattanville College

- **ALLEN, MARY**, *Health Care Technology*
  RN, Louisville General Hospital School of Nursing; B.A., St. Mary’s College

- **AMSLER, MARY**, *English*
  B.A., Tufts University; M.S., University of Chicago; Ed.D., Harvard University

- **ANINAO, JUAN JR.**, *English as a Second Language*
  B.A., M.A., San Francisco State University; Ph.D., Stanford University

- **ANTONICH, MISHA**, *Broadcast Electronic Media Arts*
  A.A., University of Maryland, European Division - Munich Campus; Theaters Arts Degree, Berlin Theater School; B.A., M.A., San Francisco State University

- **APOLLON, CHANTILLY**, *Biological Sciences*
  B.S., University of Arizona; Ph.D., University of California, San Francisco

- **ARACK, PATRICIA**, *English as a Second Language*
  B.A., University of Oregon; M.A., San Francisco State University

- **ARCENEAUX, JACKES**, *Foreign Languages*
  B.A., University of Memphis; M.A., Ph.D., University of Wisconsin-Madison
ARMSTRONG, JAMES C., Chemistry
B.A., Harvard University; M.S., University of California, Berkeley

ASEBEDO, ANNA, Department Chair, Art
A.A., American River College; B.A., University of California, Davis; M.F.A., University of Colorado, Boulder

ATKINSON, NATHAN, Graphic Communications
B.A., Cal Poly, Pomona

AVILA, ALMA, Coordinator, Community Health Worker Program/Health Education
B.S., Golden Gate University; M.P.H., San Jose State University;

AVILA, CAROLINA, Continuing Student Counseling
B.A., M.S., San Francisco State University

BABILON, CARLOTA, Foreign Languages
B.A., M.A., University of California, Berkeley

BACon, LINDA, Biological Sciences/Nutrition
B.A., Wesleyan University; M.A., Naropa Institute; M.A., San Francisco State University; Ph.D., University of California, Davis

BAIR, ASATAR, Social Sciences/Economics
B.A., Ph.D., University of Massachusetts

BALSASSARE, HEIDI, Disabled Student Programs and Services
B.A., University of California Berkeley; M.A., Columbia Teachers College, New York

BANUET-ALVERS, YVONNE, Physical Education and Dance
B.A., University of California, Berkeley; M.A., San Francisco State University

BAPTISTE, WILLIAM, Computer Science
B.S., University of San Francisco; M.A., California State University, Dominguez Hills

BARNES, ANDRÉ L., Chief of Police
B.A., Administration of Justice, Columbia College of Missouri

BARRETT, JOAO, Library and Learning Resources
B.A., M.A., California State University, Hayward; MLIS, University of California, Berkeley

BARTON, GAIL G., Physical Education and Dance
A.A., City College of San Francisco; B.A., M.A., San Francisco State

BASS, JAMEY, Mathematics
Ph.D., University of California, Santa Cruz

BATTY-SYLVAN, JOHN, English
B.A., San Francisco State University; M.A., University of Wisconsin, Milwaukee

BATTISTE, LEILANI F., ADA Compliance and Affirmative Action Officer
B.A., University of the Pacific; J.D., U.C. Hastings College of the Law; LL.M., S.J.D., Golden Gate University School of Law

BAUTISTA, GLORIA, Business
B.S., University of Puerto Rico, Rio Piedras; M.A., University of San Francisco

BEARD, CHRISTINE H., Transitional Studies
B.A., M.S., San Francisco State University; M.A., University of San Francisco

BEASLEY, WILLIS, Engineering and Technology
Journeyman Welder

BEGNAZAROV, TANAKA, Business
B.S., Fresno State University; M.A., San Francisco State University

BELBIN, CHARLES L., English as a Second Language
B.A., University of Maryland; M.A., San Francisco State University

BELL, JORGE, Interim Vice Chancellor, Campuses and Enrollment Services
A.S., City College of San Francisco; B.A., Jose Simeon Canas University, El Salvador; M.A., University of San Francisco

BELL, LOREN, English
B.A., St. Louis University; M.F.A., Bowling Green State University

BELLO, LEONEL, Business
B.A., University of San Francisco / Saint Mary’s; M.B.A., University of Phoenix

BERGER, VALERIE, English as a Second Language
B.A., University of California, Santa Cruz; M.A.T., School for International Training, Brattleboro, Vermont

BERGIN, ROSEMARY A., Nursing
B.S.N., Northern Illinois University; M.S.N., University of California, San Francisco

BERKOV, KATHLEEN, English as a Second Language
B.S., University of Wisconsin, Madison; M.A., San Francisco State University

BERSTON, SUSAN, Business
B.S., University of California; M.B.A., University of San Francisco

BERTENS, MATTHEW, Mathematics
B.S., California Polytechnic State University, San Luis Obispo; M.A., San Francisco State University

BERTHOLD, TIM, Department Chair, Health Education
B.A., Brown University, R.I.; M.P.H., Harvard University, Massachusetts

BIBLIOWCZ, MORRIS, English as a Second Language
B.A., Boston University, Massachusetts; M.A., San Francisco State University

BILMONT, JOHN, Associate Vice Chancellor, Chief Financial Officer
B.S.B.A., University of Arizona, Tucson; M.P.A., San Francisco State University, San Francisco

BIXLER, CAMILLA, English as a Second Language
B.A., M.A., San Francisco State University

BIXLER, RONALD, English as a Second Language
B.A., M.A., San Francisco State University

BLAIR, CAROLINE, Cinema
B.A., University of California, Santa Barbara; M.A., San Francisco State University; A.F.I., Producing Fellow

BLAIR, THOMAS E., Department Chair, Foreign Languages
B.A., University of Southern Colorado; M.A., Ph.D., University of Wisconsin, Madison

BLOOD, DAVID, Physical Education and Dance
B.S., University of Washington; M.F.A., University of Utah

BLUMENTHAL, SHERYL, Continuing Student Counseling
B.A., M.S.W., M.P.H., University of California, Berkeley

BODET, MARIE, English as a Second Language
B.A., Caldwell College, Caldwell, NJ; M.A., San Francisco State University

BOEGER, THOMAS, Dean, Curriculum, Tenure Review, and Faculty Evaluation of Instruction and Curriculum
B.S., Rensselaer Polytechnic Institute; M.S., University of California, Berkeley

BOGATSKY, ARIADNA M., Biological Sciences/Anatomy
B.A., San Francisco State University; M.A., University of California, San Francisco
BORSTEIN, ABIGAIL, Computer Networking & Information Technology
B.S., Indiana University; M.B.A., California State University, Hayward

BORRAZAS, JAIME, English as a Second Language
B.A., Brooklyn College, Brooklyn, NY

BOSSON, MONICA, English
B.A., University of California, Berkeley; M.A., San Francisco State University

BOWNE, SAMUEL, Computer Networking and Information Technology
B.S., Edinboro University of PA; Ph.D., University of Illinois, Urbana Champaign

BOYD, GREG, Computer Science
B.S., University of Utah; M.S., Stanford University

BOZIDAREVIC, IVANA, Chemistry
B.S., Belgrade University, Serbia; Ph.D., University of Florida

BRADFORD, DANIEL, Library and Learning Resources
B.A., Marymount College, Kansas; MLS, Emporia University, Kansas

BRAVEWOMAN, MARY, Mathematics
B.A., M.A., San Francisco State University

BRAZ, SUZANNAH, English
B.S., St. Johns University; Ed.D., Boston University

BREES, CLAIRE, Art
B.A., San Francisco State University; M.F.A., California College of Arts

BRICK, AARON, Computer Science
B.S., Johns Hopkins; M.S., University of California, Berkeley

BROCCARDO, JULIA A., Nursing
B.S., Southern Illinois University; M.S., University of California, San Francisco

BROWN, ELEANOR R., English
B.A., M.A., San Francisco State University

BROWN, HAROLD III, Physical Education and Dance
B.A., Gonzaga University; M.A., St. Mary’s College

BROWN, JESSICA J., Department Chair, English
B.A., M.A., California State University, Sacramento

BROWN, KATHRYN, Disabled Students Programs and Services
B.A., M.A., San Francisco State University

BROWN, LORI, Library and Learning Resources
B.S., MLIS, Florida State University; M.B.A., Tampa College

BROWN, STEVEN WAYNE, Department Chair, Environmental Horticulture & Floristry
B.S., California Polytechnic State University

BROWN, WHARTON JR., New Student Counseling
A.A., City College of San Francisco; B.A., M.A., San Francisco State University; M.A., University of San Francisco

BUCHSBAUM, JESSICA, English as a Second Language
B.A., Harvard University; M.A., Monterey Institute of International Studies

BUFORD, SYLVIA, Child Development & Family Studies
B.A., M.A., Ed.D., University of San Francisco

BURKE, CHARLES, Mathematics
A.B., M.A., University of California, Berkeley

BURT, TRACY, Child Development & Family Studies
B.A., Colgate University, Hamilton, NY; M.A., Harvard University, Cambridge, MA

BUTLER, REBECCA, Business
B.B.A., University of Texas, San Antonio; M.Acc., University of Tulsa; CPA, State of Texas

C

CABADING, LEON, New Student Counseling
B.A., M.S., San Francisco State University

CABAHUG, ELMA, English as a Second Language
B.A., University of San Carlos; M.A., San Francisco State University

CABANSAG, LEON, English as a Second Language
B.A., San Francisco State University; M.A., Monterey Institute of International Studies

CAHILL, GREGORIA NOVA, African American Scholastic Program
B.A., Beloit College, WI; M.S. California State University, Hayward

CAHILL, PAULA, Student Health Services
B.S.N., Simmons College, Boston; M.S.N., University of California, San Francisco

CAMPOS-ROJAS, MARCIA, Transitional Studies
B.A., Universidad Metropolitana de las Ciencias de la Educacion, Chile; M.A., San Francisco State University

CANTRELL, MARY ANN, English as a Second Language
B.A., San Jose State University; M.A., Pepperdine University, Malibu

CARBALLO, PEBBLE, Business
B.S., University of Southern California; M.B.A., Pepperdine University; CPA – State of California

CARLIN-DAWGERT, JENNIFER, Behavioral Sciences
B.S., Westfield State College, M.A., New College of California

CARLSON, LENNIS, Music
B.A., California State University, Northridge; M.A., Portland State University

CASTRO-GONZALEZ, GONZALO, Mathematics
B.S., National University of Colombia; M.S., University of Cincinnati

CATALDO, BETH, Graphic Communications
B.A., Boston College; M.A., San Francisco State University

CAUL, LISA, Health Care Technology/ Echocardiography Technician
B.S., University of San Francisco

CAUGHTEN, ALFRED, Physics
Masters Engineering Physics, University of California, Los Angeles; Masters Physics, University of California, Santa Cruz

CHAN, AGNES P, English as a Second Language
B.A., University of Hong Kong; M.A., Ph.D., University of California, Berkeley

CHAN, MARRICIA, English as a Second Language
B.S., University of California, Davis

CHAN, NORA L., Health Care Technology/ Echocardiography Technician
B.S., University of California, San Francisco

CHANDLER, ANDREW J., Department Chair, Architecture
M. Arch., Virginia Polytechnic and State University; B.Design, University of Florida
CHAPMAN, THERESA A., Automotive/Motorcycles/Construction & Building Maintenance
B.A., University of California, Berkeley; M.A., John F. Kennedy University
CHARLES, KRISTIN H., Dean, Grants & Resource Development
B.S., M.A., University of Wisconsin, Madison
CHAVARIA, FREDERICK R., Dean, School of Behavioral Social Sciences
B.A., San Francisco State University; M.P.A., Golden Gate University; Ph.D., Walden University
CHEE, CURTIS, Mathematics
B.S., University of California, Berkeley; M.S., University of Colorado, Boulder; M.A., San Francisco State University
CHEN, CORA, English as a Second Language
B.A., South China Normal University; M.A., San Francisco State University
CHEN, PEARL, New Student Counseling
B.A., San Francisco State University; M.A., Idaho State University, Pocatello; M.A., University of San Francisco
CHEN, PEIJUE, Child Development & Family Studies
B.A., Zhongshan University, China; M.A., Sonoma State University
CHENG, EVA, New Student Counseling
A.B., M.S.W., San Diego State University
CHEREMETEFF, MARIA, Art
B.A., University of California, Los Angeles; M.A., San Francisco State University; Ph.D., University of Oregon, Eugene; Kress Fellow, Courtauld Institute of Art, London, England
CHIEN, ANNIE, Department Chair, Nursing
A.A., City College of San Francisco; B.A., University of California, Berkeley; B.S., University of California, San Francisco; M.S., San Francisco State University
CHIN, TINA WONG, English as a Second Language
B.A., M.A., San Francisco State University
CHINN-MORALES, CAROLE, English as a Second Language
B.A., University of California; M.A., San Francisco State University
CHONG-DELON, PATTY P., Continuing Student Counseling
B.A., University of California, Los Angeles; M.S., California State University, Los Angeles
CHRISTAL, YOLANDA, Continuing Student Counseling
B.A., Antioch West University, San Francisco; M.P.H., University of California, Berkeley; M.A., John F. Kennedy University, Walnut Creek
CHUCK, TERENCE, Disabled Students Programs and Services
B.A., University of San Francisco; M.A., John F. Kennedy University
CHUN, DORIS S., Foreign Languages
B.A., College of Chinese Culture, Taiwan; M.A., San Francisco State University; Ed.D., University of San Francisco
CHUNG, CATHERINE, English as a Second Language
B.A., State University of Binghamton, New York; M.A., San Francisco State University
CHUNG, J. CHUONG, Asian American Studies
M.F.A., Lone Mountain College; M.A., University of San Francisco
CHYTROWSKI, PATRICIA, Graphic Communications
B.A., San Francisco State University
CIRAULO, DINA, Cinema
B.A., University of California, Berkeley; M.F.A., San Francisco State University
CLARK, FELITA, African American Scholastic Programs
A.A., Laney College, Oakland, CA; B.A. & M.S., SF State University
CLARK, OPHELIA, Department Chair, Business
B.A., LeMoyne-Owen College, Memphis, TN; M.S., Illinois State University at Normal
CLARK, ROBERT M. JR., Department Chair, Multicultural Retention Services
B.S., University of Illinois at Urbana-Champaign; M.S., San Francisco State University; Ph.D., University of California, Berkeley, Walden University
CLARK, SUNNY, Associate Dean, Student Health Services
A.A., City College of San Francisco; B.S., M.S., N.P., University of California, San Francisco
CLIFFORD, PARSLEY, Automotive/Motorcycles/Construction & Building Maintenance
B.A., California State University (Fullerton)
COHEN, RACHEL, English as a Second Language
B.A., University of Wisconsin, Madison; M.A., San Francisco State University
COLLINS, JOHN R., English
B.A., Columbia University; M.A., Ph.D., Stanford University
COLLINS, SUSAN JACKSON, Theatre Arts
B.C.A., University of North Carolina, Charlotte; M.F.A., University of North Carolina, Chapel Hill
COMMON, KURT, Engineering and Technology
A.A., College of San Mateo; B.A., California Polytechnic State University, San Luis Obispo
CONCIN, CLAUDIO, Foreign Languages
Doctorate, University of Verona, Italy
CONDE, MARIE T., Health Care Technology
A.S., City College of San Francisco; B.S., Golden Gate University; M.F.A., University of San Francisco
CONNELL, KATHERINE, Library and Learning Resources
M.A., San Francisco State University; M.A., San Francisco State University; MLIS, San Jose State University
CONNER, CONSTANCE, Computer Science
B.A., M.A., Mills College
CONRAD, DIVA, Business
B.A., San Francisco State University; M.A., University of San Francisco
COOK, VENETTE A., English as a Second Language
B.A., M.A., San Francisco State University
CORBIE, TERRENCE F., Business
B.A., American University, Paris, France
CORNEJO, LINDA, English as a Second Language
B.A., William Smith College; M.A., San Francisco State University
CORY, MEGAN, Health Care Technology
B.S., M.A., San Francisco State University
COSTA, ANTHONY, Library and Learning Resources
B.A., University of California, Berkeley; MLIS, San Jose State University
COX, KAREN C., English
B.A., University of California, Berkeley; M.A., Ph.D., University of California, Davis
CROSS, KEVIN, English as a Second Language
B.A., University of California, Davis; M.A., San Francisco State University
CROW, KELLI, English as a Second Language
B.A., M.A., San Francisco State University
CUMMINS, JAMES, English as a Second Language
B.A., University of Portland; M.A., San Francisco State University
CUNNINGHAM, ERIN, Nursing
A.S., Long Beach City College; B.S.N.
Sonoma State University; M.S.N. University of California, San Francisco

CUNNINGHAM, TOMI, English as a Second Language
B.A., Dickinson College, Pennsylvania; M.A.,
San Francisco State University

CURTIS, ARTHUR B., Department Chair, Graphic Communications
B.A., New College of California, San Francisco

CUTTEN, BARBARA, Business/Accounting
A.A., City College of San Francisco; B.S.,
Golden Gate University; Certified Public Accountant, State of California

D

D’SOUSA, ALAN, Library and Learning Resources
B.A., San Francisco State University; MLIS,
San Jose State University

DAI, KIT, Associate Dean, Contract Education/Continuing Education

DAMATO, LAWRENCE R., Transfer Counseling
B.S., M.A., University of San Francisco

DANG, LORRAIN, Chemistry
B.S., University of Michigan, Ann Arbor;
M.A., Ph.D., University of California, Santa Barbara

DATZ, ALISON M., English as a Second Language
M.A., San Francisco State University

DAVIS, BOB, Dean, School of Liberal Arts and Castro Campus
B.A., Franklin and Marshall College; B.Mus.,
San Francisco Conservatory of Music; M.F.A.,
Mills College

DAVIS, MARK B., Mathematics
B.Sc., McGill University; M.A., Ph.D.,
University of California, Berkeley

DAVIES, RICHARD, Biological Sciences
B.S., Lamar State University; M.A., University of Texas; Ph.D.,
University of Maryland

DEA, LU MARLA, English as a Second Language
A.A., Los Angeles Community College; B.A.,
University of California Santa Cruz; M.A.,
San Jose State University

DE CORDOVA, ANDRE, Continuing Student Counseling
B.S., M.S., California State University, Hayward

DE LUCCHI, ROBERT, Engineering and Technology
B.A., University of California, Santa Barbara;
Ph.D., Boston University

DELGADO, JOHN F., English
A.A., Skyline College; B.A., M.A., San Francisco State University

DEVLIN-CLANCY, MAURA, Computer Networking and Information Technology
B.A., M.A., San Francisco State University

DENNEY, STEPHANIE ERIN, English
B.A., University of California, Berkeley; M.A.,
Ph.D., University of Wisconsin, Madison

DENT, CAROL, English as a Second Language
B.A., Smith College

DEPRIMO, GAETANO M., Mathematics
A.B., M.A., University of California, Berkeley

DEVINE, JOANNE D., Child Development & Family Studies
B.S., M.S., St. John’s University, Jamaica, NY

DEWAR, CYNTHIA E., Department Chair, Educational Technology
A.A., Moorpark College; B.S., Southern Utah University;
M.A., San Francisco State University

DIXON, ALBERT, Director, Small Business Development Center
B.S., Case Western Reserve University; M.S.,
University of California, Los Angeles

DOANE, TIMOTHIA, English as a Second Language
B.A., Bard College; M.A., San Francisco State University

DONOVAN, SHARON, Child Development & Family Studies
B.A., Regis College, Weston, MA; M.A., San Francisco State University

DORÉ, DAVID A., Dean, School of Business & Downtown Campus
B.A., Gannon University; M.Ed., Boston College; M.B.A., Georgetown University;
Ph.D., Gonzaga University; M.T.S., Jesuit School of Theology of Santa Clara University;
Ed.D., Pepperdine University

DOSS, MONEERA, English
B.A., M.A., Oxford University

DOYLE, TERRENCE, English as a Second Language
B.A., M.A., University of California, Berkeley;
M.A., San Francisco State University; Ed.D.,
University of San Francisco

DRIVER, CLAYTON, Business
B.S., Western Michigan University; M.S.,
Golden Gate University; CPA State Illinois

DRUCKER, RONALD, Chemistry
B.S., California Institute of Technology;
Ph.D., University of California, Berkeley

DUCKWORTH, MATTHEW DAVID, English
B.A., Ph.D. Cand., University of California, Berkeley

DUDUM, ISAM, Mathematics
B.S., San Francisco State University; M.S.,
California State University, Hayward

DUFFY, KATHLEEN, Disabled Students Programs and Services
B.A., New College of CA; MFT-CRC, M.S.,
San Francisco State University

DUKE, LISA, Automotive/Motorcycles/ Construction & Building Maintenance
A.A., City College of San Francisco; B.A.,
M.A., New College of California

DUNCAN, YVONNE, English as a Second Language
B.A., M.A., San Francisco State University

DURIGHELLO, JOY, English as a Second Language
B.A., University of California, Berkeley; M.A.,
San Francisco State University

DYE, DORA J.L., Business
B.A., M.A., University of California, Berkeley;
M.B.A., Armstrong University

E

EDWARDSON, LAWRENCE, English as a Second Language
B.A., Simpson College; M.A., San Francisco State University

EDWARDS, SHARON J., Biological Sciences
B.A., Arizona State University; M.A., San Jose State University

ELLIOTT, BARBARA B, Vocational Nursing
B.S.N., Ph.D., Boston College School of Nursing, Chestnut Hill, MA

ELLIOIT, NANCY MIZUNO, Art
B.A., University of California, Berkeley;
M.F.A., University of Georgia, Athens

ENDRES, ROSE, Computer Science
B.S., M.S., A.M., University of Illinois

ESCOBAR, LUIS, New Student Counseling
A.A., Contra Costa College; B.A., San Francisco State University; Ed.D.,
San Francisco State University

ESTRADA, MICHAEL, Social Sciences/ Political Science
A.A., Grossmont College; B.A., University of California, Berkeley; M.A., San Francisco State University
F

FA, ANGELINA, Department Chair, Asian American Studies
B.A., M.A., Brown University; Ph.D., University of California, Berkeley

FALK, MARION, English as a Second Language
B.A., University of California, Santa Cruz; M.A., Eastern Michigan University

FAN, MARK, Library and Learning Resources
B.A., M.L.S., University of Texas, Austin

FARNBACH, INGRID, English as a Second Language
B.A., University of Pennsylvania; M.A., San Francisco State University

FARRAR, VINCENT, African American Studies
B.A., Harvard University; M.A., Ph.D., University of California, Berkeley

FELIU, VERÓNICA E., Foreign Languages
Ph.D., Duke University

FERGUS, BRIAN, Music
B.A., Pennsylvania State University; M.F.A., Mills College

FERNANDEZ, OLALLO, Architecture
A.B., M.S., University of California, Berkeley

FERRARA, LAWRENCE DAVID, Music
B.M., M.M., San Francisco Conservatory of Music

FERREIRA DA SILVA, CLAUDIA, Computer Networking and Information Technology
B.S. Centro Federal de Educacao Tecnologica, Brazil; M.A. University of Phoenix,

FIANDACA, ANASTASIA, Latino Services
Network Counseling
B.A., California State University, Fullerton; M.S., San Francisco State University

FIORE, LINDA, Health Care Technology
B.S., University of Phoenix; M.S., Nova Southeastern University

FISHER, ALLAN, English as a Second Language
B.A., University of Massachusetts; M.A., San Francisco State University

FLEMING, ANNE-MAIRE, English as a Second Language
B.A., University of California, Berkeley; M.A., San Francisco State University

FOLTZ, FRANCINE, English
B.A., Northwestern University; M.A., University of California, Berkeley

FONG, CYNTHIA, Child Development & Family Studies
B.A., M.A., San Francisco State University

FONG, LAWRENCE K., Chemistry
B.S., University of Nevada, Reno; M.A., Ph.D., Harvard University

FONG, MAY, Department Chair, Consumer Education
B.S., San Francisco State University; M.P.H., University of California, Berkeley

FONG, RAYMOND H., Department Chair, Chemistry
B.S., University of Southern California; Ph.D., University of California, Los Angeles

FONG, RAYMOND, EOPS Counseling
B.A., M.A., M.S., M.F.C.C., San Francisco State University; Ed.D., University of San Francisco

FONSECA, GRISELLE, New Student Counseling
A.S., City College of San Francisco; B.S., M.S., San Francisco State University

FONTANELLA, ANN, English as a Second Language
B.A., M.A., San Francisco State University

FOREMAN, JOYCE, Disabled Students Programs and Services
B.A., M.S., San Francisco State University

FOWLER, JANET, English as a Second Language
B.A., M.A., San Francisco State University

FRACCHIA, CHARLES, Department Chair,
Library & Learning Resources
A.B., University of San Francisco; M.L.S., University of California, Berkeley

FRANCISCO, CHRISTINE T., English as a Second Language
B.A., California State University Long Beach; M.A., San Francisco State University

FRANDINA, MARY, English as a Second Language
B.A., Lehman College, Bronx, NY; M.A., City College of New York, NY

FRANKLIN, KIM R., English as a Second Language
B.A., San Francisco State University; M.A., Portland State University

FREGLY, CAROL, English
B.S., Pennsylvania State University; M.A., San Francisco State University

FREDERICKS, DIANE, Transitional Studies
B.A., San Francisco State University; M.A., New College of California

FREEDMAN, BETH, Health Education
B.A., University of Florida, Gainesville; M.P.H. University of California, Berkeley

FUCHS, EKATERINA, Mathematics
B.A., University of California, Berkeley; M.A., Pennsylvania State University

G

GABLE, BURTON, English as a Second Language
B.A., State University of New York, Buffalo; M.A., San Francisco State University

GAMBA, RAYMOND, Department Chair,
Behavioral Sciences/Psychology
B.A., University of San Francisco; M.A., Ph.D., The Claremont Graduate School

GARCIA, ANA, Foreign Languages
B.A., University of California, Berkeley; M.A., San Francisco State University

GARCIA, DIANE R., Diagnostic Medical Imaging
A.S., City College of San Francisco; B.S., M.S., Touro University International

GARCIA-DENSON, DIANA, Foreign Languages
B.A., University of California, Davis; M.A., Boston University

GARCIA, MAURO, Library and Learning Resources
B.A., University of California, Santa Cruz; MLIS, San Jose State University

GATI, SALLY, English as a Second Language
B.A., M.A., University of California, Los Angeles

GATES, ROBIN, English as a Second Language
B.A., M.A., San Francisco State University

GEE, PROCEPINA R, Nursing. Licensed Vocational
B.S.N., M.S.N., San Francisco State University

GELERA, DON RICO, International Student Counseling
B.S., M.S., San Francisco State University

GENSLE, THERESA, Physical Education and Dance
B.A., M.S., San Francisco State University

GENTILE, PAMELA, English
B.A., University of Oregon; M.A., San Francisco State University

GENTRY, ERIKA, Photography
B.A., University of Oregon; M.F.A., Rochester Institute of Technology
GIBBS, CAROLINE L., English as a Second Language  
B.Ed., University of London

GILBERT, QUINCE, Business  
B.A., Franklin & Marshall College; M.A., San Francisco State University

GINThER-WEBSTer, KIMBERLY M,  
Library and Learning Resources  
B.A., Michigan State University; M.I.L.S., University of Michigan; M.P.A., University of Pittsburgh

GIUSTO MENDES, DEBRA, Nursing  
A.A., City College of San Francisco; B.S.N., Holy Names University Oakland; M.S.N., California State University, Los Angeles

GLANZR, CAROLE, English as a Second Language  
B.A., Rutgers University, New Brunswick, NJ; M.A., University of California, Berkeley

GLAZER, SHELLEY, Department Chair, Older Adults  
B.A., University of California, Los Angeles; M.S.W., M.P.H., University of California, Berkeley

GLENN, TORREY, Chemistry  
B.S., M.S., University of California, Santa Cruz

GOLDSMITH, DEBORAH, Social Sciences/Economics  
B.A., Pomona College; M.A., University of California, Berkeley

GOLDSMITH, AUGUSTA, English as a Second Language  
B.A., St. John's College, Santa Fe, New Mexico; M.A., San Francisco State University

GOLDSMITH, PETER A., Vice Chancellor of Finance and Administration  
B.A., Binghamton University; M.P.P., University of California, Berkeley

GOLDMAN, MARYLIN, Business  
B.S., University of California, Berkeley; M.B.A., University of San Francisco

GOODFRIEND-KOVEN, NORA, Health Education  
B.A., University of California, Santa Cruz; M.P.H., San Jose State University

GOODYEAR, WILLIAM, Department Chair, Continuing Student Counseling  
B.A., University of Arkansas; M.A., University of Arizona; M.S., San Francisco State University

GORTHY, MICHELLE K., Speech Communication  
B.A., California State University, Hayward; M.A., San Francisco State University

GOUGOUTAS, ANNE KATHERINE, Transitional Studies  
B.A., Reed College; M.A., San Francisco State University

GRABER, MARY, Physical Education and Dance  
B.S., Trinity University; M.S., California State University, Hayward

GRADY, MARGARET SPECK, Physical Education and Dance  
B.S., Chico State University; M.S., Sacramento State University

GRANDITS, FRANK, English as a Second Language  
M.A., State University of New York

GRANDY, CARLA, Earth Sciences  
B.S., Texas Christian University; M.S., Oregon State University; Ph.D., University of California, Santa Cruz

GRANT, FUMIKO YAMAMOTO, Foreign Languages  
B.A., Doshisha University, Japan; M.A., San Francisco State University; Ed.D., University of San Francisco

GRASS, JAMES, Biological Sciences  
B.S., Canisius College; M.S., University of Washington; Ph.D., Columbia Pacific University

GRATCH, BONNIE G., Library and Learning Resources  
B.A., San Francisco State University; M.P.A., State University of New York; M.L.S., Syracuse University

GRAVES, WILLIAM, Social Sciences/Philosophy  
B.A., M.A., Wayne State University

GREEN, DENNIS CURTIS, Social Sciences/Philosophy  
M.A., University of the Pacific; Ph.D., Claremont Graduate School

GREEN, DIANE, Department Chair, Fashion  
B.A., Brooklyn College; M.A., State University of New York at Stony Brook; Interior Design, Wilsey Institute, New York

GREEN, HERBERT, English  
B.A., University of California, Berkeley; M.A., Brown University

GREENBERG, MICHAEL, Mathematics  
B.A., New York University; M.S., Brown University

GREGER, CHRISTOPHER, English  
B.A., University of California, Berkeley; M.A., Ph.D., New York University

GRIFFIN, DON Q., Chancellor  
B.A., University of California, Berkeley; M.A., San Francisco State University; Ph.D., University of California, Berkeley

GRIFFITHS, ROBERT, English as a Second Language  
B.A., University of California, Davis; M.A., TEFL, San Francisco State University

GUEYE, SOULEYMANE, Social Sciences/Economics  
B.A., University of Dakar M.A., Ph.D., University of Paris, Sorbonne

GUICHARD, MARGARET C., Department Chair, Health Care Technology  
B.S., University of Phoenix, Arizona; M.A., University of San Francisco

GUTHRIE, MICHAEL J., Anatomy and Physical Anthropology  
B.A., California State University, Sacramento; M.S., University of California, Davis

GUTHRIE, TERRY W., English as a Second Language  
B.A., University of California, Santa Cruz; M.A., San Francisco State University

H

HAIGHT, EVE, English as a Second Language  
B.A., University of California, Berkeley; M.A., San Francisco State University

HAIMES, BARBARA, Culinary Arts and Hospitality Studies  
B.A. Michigan State University

HAIN, LIANA, Nursing  
B.S.N., San Jose State University; M.S., University of California, San Francisco; Ph.D. University of California, San Francisco
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>HALE, CECIL</td>
<td>Broadcast Electronic Media Arts</td>
<td>A.A., City College of San Francisco; B.A., San Francisco State University</td>
</tr>
<tr>
<td>HALL, TERRANCE</td>
<td>Dean, School of Health/Physical Education and John Adams Campus</td>
<td>A.A., City College of San Francisco; B.A., San Francisco State University; M.P.H., University of California, Berkeley</td>
</tr>
<tr>
<td>HAMMER, JENNIFER</td>
<td>English as a Second Language</td>
<td>B.A., State University of New York, Oswego; M.A., San Francisco State University</td>
</tr>
<tr>
<td>HAMMERICH, KEITH C.</td>
<td>Culinary Arts and Hospitality Studies</td>
<td>A.A., Skyline College</td>
</tr>
<tr>
<td>HANSON, EDWARD SIMON</td>
<td>Department Chair, Biological Sciences</td>
<td>B.A., B.S., University of California, Santa Barbara; Ph.D., University of California, San Francisco</td>
</tr>
<tr>
<td>HARRIS, JULIE</td>
<td>Continuing Student Counseling</td>
<td>A.A., Glendale College; B.A., San Jose State University; M.A., San Francisco State University</td>
</tr>
<tr>
<td>HARRIS, THERESA</td>
<td>Nursing</td>
<td>R.N., French Hospital School of Nursing; B.S., M.S., San Francisco State University</td>
</tr>
<tr>
<td>HARRISON, LISA</td>
<td>Behavioral Sciences/Psychology</td>
<td>B.S., Santa Clara University; M.A., Psy.D., California School of Professional Psychology</td>
</tr>
<tr>
<td>HARTMAN, CATHERINE</td>
<td>English as a Second Language</td>
<td>B.A., M.A., San Francisco State University</td>
</tr>
<tr>
<td>HAYES, DANIEL JOSEPH</td>
<td>Department Chair, Physical Education and Dance</td>
<td>A.A., City College of San Francisco; B.A., University of California, Riverside; M.A., Azuza Pacific University</td>
</tr>
<tr>
<td>HAYES, DONNA J.</td>
<td>Continuing Student Counseling</td>
<td>A.A., Canada College; B.A., M.S., San Francisco State University</td>
</tr>
<tr>
<td>HAYES, EARL</td>
<td>English as a Second Language</td>
<td>A.A., City College of San Francisco; B.A., M.A., San Francisco State University</td>
</tr>
<tr>
<td>HEARD, CAROL</td>
<td>Learning Assistance</td>
<td>B.A., University of Iowa; M.A., San Francisco State University</td>
</tr>
<tr>
<td>HEARST, JUDITH</td>
<td>Child Development &amp; Family Studies</td>
<td>B.A., San Francisco State University</td>
</tr>
<tr>
<td>HECTOR, GINA</td>
<td>Business</td>
<td>B.A., Prairie View A&amp;M University; M.B.A., University of San Francisco</td>
</tr>
<tr>
<td>HECTOR, WILLIE</td>
<td>Physical Education and Dance</td>
<td>B.A., University of the Pacific; M.A., San Francisco State University</td>
</tr>
<tr>
<td>HEGE, LINDA</td>
<td>Business</td>
<td>B.S., University of the State of New York; California CPA License; California Real Estate Broker License</td>
</tr>
<tr>
<td>HENDERSON-BROWN, TESSA</td>
<td>Continuing Student Counseling</td>
<td>A.A., City College of San Francisco; B.A., M.S., San Francisco State University</td>
</tr>
<tr>
<td>HENDRICKSON, DENNIS S.</td>
<td>English</td>
<td>B.A., M.A., San Francisco State University; M.A., University of California, Davis</td>
</tr>
<tr>
<td>HENNING, NANCY</td>
<td>Nursing</td>
<td>B.S., University of Massachusetts; M.S., University of California, San Francisco</td>
</tr>
<tr>
<td>HEREDIA, MARIA L.</td>
<td>Department Chair, New Student Counseling</td>
<td>B.A., Holy Names College; M.S., San Francisco State University</td>
</tr>
<tr>
<td>HERNANDEZ HAFFNER, LORI</td>
<td>Vocational Nursing</td>
<td>B.S.N., San Diego State University; C.N.P., San Francisco State University</td>
</tr>
<tr>
<td>HERRMANN, PAUL</td>
<td>Chemistry</td>
<td>B.S., Massachusetts Institute of Technology; Ph.D., University of California, Berkeley</td>
</tr>
<tr>
<td>HESS, DARREL</td>
<td>Earth Sciences</td>
<td>B.A., University of California, Berkeley; M.A., University of California, Los Angeles</td>
</tr>
<tr>
<td>HILLAN, JOHN M.</td>
<td>Environmental Horticulture &amp; Floristry</td>
<td>B.S., M.Ed., University of California, Davis</td>
</tr>
<tr>
<td>HIROSE, LYNDA</td>
<td>Culinary Arts and Hospitality Studies</td>
<td>B.S., M.A., San Francisco State University</td>
</tr>
<tr>
<td>HOFFMAN, CAMILLE</td>
<td>English as a Second Language</td>
<td>B.A., M.A., San Francisco State University</td>
</tr>
<tr>
<td>HOLSTEN, MATTHEW</td>
<td>English as a Second Language</td>
<td>B.A., M.A., San Francisco State University</td>
</tr>
<tr>
<td>HOM, CALVIN W.</td>
<td>Biological Sciences</td>
<td>B.A., University of California; M.A., San Jose State University; M.A.; Stanford University</td>
</tr>
<tr>
<td>HOM, GRACE</td>
<td>Department Chair, Transfer Counseling</td>
<td>B.A., University of California, Berkeley; M.A., University of San Francisco</td>
</tr>
<tr>
<td>HOMER, SUZANNE</td>
<td>Social Sciences/Political Science</td>
<td>B.A., University of California, Berkeley; M.A., San Francisco State University; J.D., University of California, Berkeley</td>
</tr>
<tr>
<td>HOSKINS, SHIRLEY ANN</td>
<td>Biological Sciences</td>
<td>B.S., University of California, Davis; M.S., University of the Pacific; Ph.D., University of California, Berkeley</td>
</tr>
<tr>
<td>HOTECKISS, DAVID</td>
<td>Chief Information Technology Officer</td>
<td>B.S.E.E US Army Institute; M.B.A., De La Salle University; Ph.D., De La Salle University</td>
</tr>
<tr>
<td>HU, KARIN</td>
<td>Behavioral Sciences/Psychology</td>
<td>B.A., University of California, Berkeley; M.A., Ph.D., Johns Hopkins University, Baltimore, Maryland</td>
</tr>
<tr>
<td>HU, THOMAS</td>
<td>Mathematics</td>
<td>B.A., University of California, Berkeley; M.A., University of California, Los Angeles</td>
</tr>
<tr>
<td>HUANG, JOANNE X.</td>
<td>New Student Counseling</td>
<td>B.A., University of California, Davis; M.S., San Francisco State University</td>
</tr>
<tr>
<td>HUBBELL, JUDY</td>
<td>Music</td>
<td>B.S., M.S., Juilliard School of Music</td>
</tr>
<tr>
<td>HUDSPETH, CHARLES</td>
<td>Music</td>
<td>B.A., Oklahoma City University; M.A., San Francisco State University</td>
</tr>
<tr>
<td>HUNNICUTT, VERONICA</td>
<td>Dean, Office of Student Affairs</td>
<td>A.A., City College of San Francisco; M.A., San Francisco State University; B.S., Ed.D., University of San Francisco</td>
</tr>
<tr>
<td>HUOT, BOPHANY</td>
<td>English as a Second Language</td>
<td>B.A., Rhodes College; M.A., School of International Training</td>
</tr>
</tbody>
</table>
HUNTSMAN, HAL, Mathematics
B.A., University of Colorado, Boulder; M.A., University of Colorado, Boulder; M.S., California State University, Hayward.

HURT, MAI, Chemistry
B.S., University of California, Berkeley; Ph.D., University of California, Santa Cruz

HUSARI, NANCY, English as a Second Language
B.A., University of California, Berkeley; M.A.T., The School for International Training, Brattleboro, VT

HUSZAGH-LOCKWOOD, DEBORAH, English as a Second Language
B.A., University of California, Santa Cruz; M.A., New York University

HUTCHINGS, SASCHA, Library and Learning Resources
B.A., University of California, Berkeley; MLIS, San Jose State University

HUYNH, LOAN, APASS
B.A., M.S., San Francisco State University

Ikeda, Vivian, English as a Second Language
B.A., M.A., San Francisco State University

Iles, Tandy, Health Education
B.A., Hunter College; M.P.H., University of California, Berkeley

Illick, Shirley A., English
B.A., Cedar Crest College; M.A., San Francisco State University

Inman, Judith, Health Care Technology
B.S., San Francisco State University; M.S., University of California, San Francisco

Inomata, Kimiyoshi, Foreign Languages
B.A., M.A., Tokyo University of Foreign Studies; Ed.D., University of San Francisco

Iqbal, Mohammed, English as a Second Language
B.A., M.A., San Francisco State University

Irvine, Jennifer, English as a Second Language
B.A., University of California, Davis; M.A., San Francisco State University

Irwin, Robert Cirelli, English as a Second Language
B.A., M.A., San Francisco State University

J

Jardim, Philip, Biological Sciences
B.A., University of California, Berkeley; M.S., California State University, Hayward

Jenkins, Lidia, Associate Dean, Matriculation & Enrollment Services
A.A., City College of San Francisco; B.A., Golden Gate University; M.A., San Jose State University

Jew, Carl S., Dean, Civic Center Campus
A.B., University of California, Berkeley; M.A., San Francisco State University

Jindrich, Denise, English as a Second Language
B.A., University of California, Berkeley; M.A., University of Michigan, Ann Arbor

Johnson, JILL, Physics
B.S., California Polytechnic State University, San Luis Obispo; Ph.D. University of California, Davis

Johnson, Christopher J., Culinary Arts and Hospitality Studies
B.A., Stanford University

Johnson, Daniel P., Business
B.S., University of California at Los Angeles; M.B.A., University of Michigan; C.P.A., State of California

Johnson, Elaine, Biological Sciences
B.S., University of Minnesota; M.A., San Francisco State University; M.S., University of Bridgeport; Ph.D., University of Texas, Austin

Johnson, Lisa, English as a Second Language
B.A., Saint Olas College; M.A., University of Northern Iowa

Johnson, Ronald, English
B.A., M.F.A., Bowling Green State University

Johnson, Stephan, F., Social Sciences/Philosophy
A.B., University of California, Berkeley; M.A., San Francisco State University; Ph.D., University of Wisconsin, Madison

Jones, Keith, Business
M.S., San Francisco State University; M.B.A., University of California, Berkeley

K

Kaeuper, Edith Ann Leonhardt, Biological Sciences
B.A., University of California, Berkeley; Ph.D., University of California, Davis

Kaiser, Leo M., Mathematics
B.S., Stanford University; M.A., University of California, Los Angeles

Kamatani, Pamela, Music
B.M., M.A., San Francisco State University; Ph.D., University of California, Berkeley

Kaneshiro, Robin, Art
A.B., M.A., M.F.A., University of California, Berkeley

Kao, Lanceot, Department Chair, Astronomy
A.B., University of California, Berkeley; M.S., Ph.D., University of Chicago

Kapp, Mary J., English as a Second Language
B.A., Southern Illinois University, Carbondale; M.A., American University, Cairo, Egypt

Kappra, Richard, English as a Second Language
B.F.A., Philadelphia College of Art; M.Ed., Temple University

Kastner, Barbara J., English as a Second Language
B.A., M.A., San Francisco State University

Kauffman, Wendy S., Engineering and Technology
B.S.M.E., University of California, Berkeley; M.S.M.E., University of Michigan, Ann Arbor; M.S.M.E., University of California, Berkeley

Kaushik, Dorothy, Nursing Licensed Vocational
B.Sc.N., M.Sc.N., RN, RM, University of Mardas, India

Kawamoto, Judy, Student Health Services
M.S.W., Simmons College, Boston

Kearsley, Jeanne, English as a Second Language
B.A., Colby College; M.A., School of International Training

Keast, Darren, English
B.A., Stanford University; M.A., San Francisco State University

Keech, Gregory, Department Chair, English as a Second Language
B.S., Georgetown University, Washington, D.C.; M.A., San Francisco State University

Keenan, Kimberly, Social Sciences/Political Science
B.A., University of California, Berkeley; M.A., San Francisco State University; J.D., Pepperdine School of Law

Kellond, Maureen, Culinary Arts and Hospitality Studies
B.S. Southern New Hampshire University
KENTER, ALICIA, English as a Second Language  
B.A., San Joaquin Delta College, Stockton, CA; B.A., M.A., San Francisco State University

KENNEDY, MATTHEW, Behavioral Sciences/Anthropology  
B.A., University of California, Los Angeles; M.A., University of California, Davis

KESSLER, STEVEN, Biological Sciences  
B.A., Wesleyan University; M.S., University of California, Berkeley

KEYS, KERIN, Mathematics  
B.A., B.S., The Evergreen State College; M.A., San Francisco State University

KHAN, SHEHLA NASREEN, English as a Second Language  
A.A., City College of San Francisco; B.A., University of California, Berkeley; M.A., San Jose State University

KILLIKELLY, TIMOTHY, Social Sciences/ Political Science  
B.A., City University of New York; Queens College; Ph.D., City University of New York

KIM, JUNG EUN, Vocational Nursing  
M.S.N., Ph.D., University of California, San Francisco

KING, ELIZABETH, English  
B.A., University of Michigan; M.A., San Francisco State University

KING, ROGER, Physics  
B.S., University of Arizona; Ph.D., University of California, Davis

KING, WILLIAM CHARLES, Mathematics  
B.S., University of Colorado; M.A., University of Illinois

KITCHEL, MARC, Social Sciences/ Economics  
B.A., University of California, Riverside; M.A., San Jose State University; Ph.D., University of Massachusetts, Amherst

KITCHIN, DEBORAH, Business  
B.A., Golden Gate University; M.A., San Francisco State University; Ed.D., University of San Francisco

KLEINMAN, CRAIG I., English  
B.A., Buffalo State College; M.A., San Diego State University; Ph.D., University of Rhode Island

KLOT, STEVEN, Interdisciplinary Studies  
A.B., Hunter College, New York, NY; A.M., University of Hawaii, Honolulu

KOIFFER, MARC, Computer Networking and Information Technology  
B.S., City College of San Francisco; B.A., University of Massachusetts, Boston; M.A., San Francisco State University

KOREY, SUZANNE, Vocational Education  
B.A., University of Wisconsin; M.A., San Francisco State University

KOK, CHRISTOPHER, Department Chair, Library Information Technology  
A.B., Brown University; M.S., Columbia University; Ph.D., University of California, Berkeley

KRUSTAPENTUS, EMILIE, English as a Second Language  
B.A., Assumption College, Worcester, Mass.; M.A., School of International Training, Brattleboro, VT

KUMAR, SHRIDEVI, Physics  
B.S., Physics, University of Mumbai; M.S., Physics, San Francisco State University

KUDSI, OMAR SAMI, Speech Communication  
B.A., M.A., University of California, Santa Barbara

LA MATTERY, MARY, English  
B.A., San Diego State University; M.A., San Francisco State University

LABAGH, JUSTIN, Physical Education and Dance  
B.A., University of California, Berkeley; M.A., United States Sports Academy

LABREQUE, DANA, Broadcast Electronic Media Arts  
B.A., University of California

LAI, ELAINE, Computer Studies  
B.A., Hong Kong Baptist College; M.A., University of San Francisco

LAMHA, CARMEN, Interim Department Chair, Computer Networking and Information Technology  
B.S., Universidade Federal de Juiz de Fora, Brazil; M.A., Instructional Technologies, San Francisco State University

LANGMO, TORE, English  
B.A., University of Oregon; M.A., San Francisco State University

LANSANG, JEAN, Nursing, Licensed Vocational  
R.S.N., Lyceum of Batangas, Phils; M.A.N., University of Philippines

LARIN, RENATO, Department Chair, Extended Opportunity Programs and Services  
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

LAROCHE, RANDY, English as a Second Language  
B.A., San Jose State University; M.A., San Francisco State University

LASS, BARBARA, Behavioral Sciences  
B.A., University of South Dakota M.A. and Ph.D., University of Minnesota

LAU, PENNIE, English as a Second Language  
B.A., University of California, Davis; M.A., San Francisco State University

LAUGHLIN, SEAN, Physical Education and Dance  
B.A., University of San Francisco; M.A., St. Mary's College

LAURITZEN, DEAN, Biological Sciences  
B.S., University of California, Davis; Ph.D., University of California, Los Angeles

LEBER, LORRAINE, Graphic Communications  
B.A., San Francisco State University

LEE, DACK K., Physics  
B.A., San Francisco State University; M.A., University of California, Berkeley

LEE, KIM, English as a Second Language  
A.A., American River Community College, Sacramento, CA; B.A., M.A., San Francisco State University

LEE, QUINCI, New Student Counseling  
A.A., City College of San Francisco; B.A., University of California, Davis; M.S., San Francisco State University

LEE, THEODORE, Mathematics  
A.B., University of California, Berkeley; M.A., University of California, Los Angeles

LEE, THOMAS, English as a Second Language  
A.A., Merritt College, Oakland, CA; B.A., University of California, Berkeley; M.A., University of San Francisco

LEGASPI, ERLINDA, English  
A.B., University of California, Berkeley; M.A., San Francisco State University

LEGGION, VICKI, Health Education  
B.A., New College of California; M.P.H., University of Illinois, Chicago

LEMLEY, JAMIEL, Business  
B.A., St. Mary's College, Moraga

LEONE, ANDREW, Art  
B.A., San Francisco State University; M.F.A., San Jose State University
LEUNG, BRUCE K.T., Business
B.S., University of California, Berkeley; M.S., Golden Gate University

LEUNG, LORELEI, Extended Opportunity Programs and Services
B.A., Syracuse University; M.S.S., Byrn Mawr College

LEY, DEBBIE POLLACK, English as a Second Language
B.A., University of California, Berkeley; M.A., New York University

LEY, LYNN, English as a Second Language
B.A., University of Washington, Seattle; M.A., San Francisco State University

LEW, EUNICE, English as a Second Language
B.A., M.A., San Francisco State University

LEWIN, SIDNEY, Environmental Horticulture & Floristry
B.A., University of Oregon; M.A., Ph.D., Columbia Pacific University

LEWIS, DAVID, English as a Second Language
B.A., M.A., San Francisco State University

LEWIS, CHRISTA, English as a Second Language
B.A., Mills College, Oakland; M.A., University of San Francisco

LEWIS, CHRISTOPHER, Earth Sciences
B.A., University of California, Berkeley; M.S., University of California, Berkeley, CA

LEYBA, MARYLOU, Dean, Admissions & Records (Registrar)
B.A., University of Utah; M.A., San Jose State University

LIAN, XUE-GUANG, Foreign Languages
B.A., Dalian University of Foreign Language, China; M.A., Pacific University, Fresno; M.A., California State University, Fresno

LIANG, MANDY, New Student Counseling
B.A., University of California, Davis; M.S., San Francisco State University

LIANG, YI, Library and Learning Resources
B.A., MLIS, Wuhan University, China; MLIS, University of Wisconsin-Milwaukee

LILIENTHAL, BRUCE W., Business
B.A., University of Florida, Gainesville; J.D., Duke University, Durham, NC

LIM, BENEDICT, Music
B.A., Towson State University; M.A., University of Maryland

LIM, JAMES, Library and Learning Resources
A.B., M.L.S., University of California, Berkeley

LIN, DORIS, Chemistry
B.Sc., Hong Kong University; Ph.D., University of California, Los Angeles

LIN, JEANNE, Behavioral Sciences/ Psychology
B.A. San Francisco State University, M.S., Ph.D. University of Washington

LIND, DONALD, Associate Dean, Payroll Services
B.S.G.E., Northwestern University; M.P.A., Florida International University

LING, GARY, Mathematics
B.S., M.A., M.S., University of California, Berkeley

LISKER, DAVID, English as a Second Language
B.A., San Francisco State University; M.A., University of California, Berkeley

LIU, DEBRA, English as a Second Language
B.A., M.A., University of California, San Francisco State University

LIU, HSIN-YUN, Foreign Languages
B.A., National Taiwan University; M.A., University of California, Berkeley

LIU, MAIDA, APASS
B.S., San Francisco State University; M.A., San Jose State University

LIU, MONIKA, Associate Dean Registration and Records (Noncredit)
B.S., San Francisco State University; M.B.A., University of Phoenix; A.A., City College of San Francisco

LIU, RENEE, Mathematics
B.S., University of Hawaii; M.A., University of California, Berkeley

LO, SUZANNE, Library and Learning Resources
B.A., M.L.S., University of California, Berkeley

LOCKMAN, KENDRA, Mathematics
B.A., M.A., University of Montana

LOFFHOUSE, ERIN, English as a Second Language
B.A., M.A., San Francisco State University

LONGACRE, SUSAN, Nursing
B.S., San Diego State University; M.S., University of California, San Francisco

LOO, JOSEPHINE, Learning Assistance
B.A., M.S., San Francisco State University

LOPEZ, SUSAN, English as a Second Language
B.A., University of California, Berkeley; M.A., University of San Francisco; M.P.A., San Francisco State University

LOUIE, MARGARET, Behavioral Sciences/ Psychology
A.S. City College of San Francisco, B.A., San Francisco State University, Ph.D., California School of Professional Psychology

LOVIS, DAVID MORGAN, Disabled Students Programs and Services
B.A., St. Olaf College, Northfield, MN; M.A., University of Kansas, Lawrence

LOW, JOANNE, Interim Vice Chancellor, Academic Affairs
B.A., San Jose State University; M.A., University of San Francisco

LUCARELLI, ADAM L. JR., Physical Education and Dance
B.A., M.S., California State University, Hayward

LUCKEY, BERNADINE, Child Development & Family Studies
B.A., John F. Kennedy University, Orinda, CA; M.S.W., San Francisco State University

LUM, JERRY W., Architecture
B.A., M.Arch., University of California, Berkeley

LUM, LILY YUEN, Mathematics
B.S., University of California, Davis; M.A., University of California, Los Angeles

LUTZ, ROBERT W., Behavioral Sciences/ Psychology
B.A., U.C. Berkeley; Ph.D., Arizona State University

LYLES, TANYA E., Aircraft Maintenance Technology
A.S., College of San Mateo; B.S., San Jose State University; M.S., Bastaq University; Airframe and Powerplant Certificate, F.A.A.

LYM, BRIAN, Library
B.A., M.S., MLIS, University of California, Berkeley

M

MA, THI THI, English as a Second Language
B.A., San Francisco State University; M.A., University of California, Los Angeles

MACANDREW, ANN, English as a Second Language
B.A., M.A., San Francisco State University
MACRI, BEN, Department Chair, Automotive/Motorcycle-Construction & Building Maintenance  
B.A., Antioch University, Yellow Springs, OH;  
M.A., San Francisco State University

MACK, IMELDA (AMY), New Student Counseling  
A.S., City College of San Francisco; B.A.,  
M.S., San Francisco State University

MACKEY, ROBIN H., English as a Second Language  
B.A., University of California, Berkeley; M.A.,  
San Francisco State University

MADULI-WILLIAMS, DENISE, English as a Second Language  
B.A., California Polytechnic State University, San Luis Obispo; M.A., Columbia University, Teachers College, New York, NY

MAESTRE, JOSÉ, Business  
B.A., Rutgers University, New Brunswick, NJ;  
M.A., University of San Francisco

MAGALONG, PHILIP V., Disabled Students Programs and Services  
B.A., University of San Francisco; M.S., San Francisco State University; Ed.D., University of San Francisco

MARINOFF, JOANI, Health Education  
B.A., Antioch University West, San Francisco;  
P.H., University of Massachusetts

MARKHAM, DIANA, Department Chair, Physics  
A.B., University of California, Berkeley; M.S.,  
Ph.D., University of Colorado

MARRUJO-DUCK, LILLIAN, Social Sciences/History  
B.A., M.A., San Jose State University

MARS, TONY, English as a Second Language  
B.A., San Francisco State University; M.A.,  
University of San Francisco

MARTIN, MOLLY (MO), Mathematics  
B.S., M.A., University of Kentucky

MARTIN, TINA, English as a Second Language  
B.A., M.A., San Francisco State University

MARTINEZ, ANTONIO, New Student Counseling  
A.A., San Joaquin Delta College; B.A., M.A.,  
Sonoma State University

MASSIN, TERRI, English as a Second Language  
B.A., University of Wisconsin, Madison;  
M.A., San Francisco State University

MATSUMURA, MIKIKO, Foreign Languages  
B.A., M.A., San Francisco State University

MAULEON-SANTANA, REBECA, Music  
A.A., City College of San Francisco; B.A.,  
M.A., Mills College, Oakland, CA

MAUZEY, KARL, Computer Networking and Information Technology  
A.B., Columbia College; M.S., Ph.D.,  
University of Washington

MAYER, ANN B., Nursing, Licensed Vocational  
B.S.N., California State University, Dominguez Hills; M.S., University of California, San Francisco

MAYORGA, SUSANA M., Latino Services Network  
A.A., College of San Mateo; B.A., University of California, Berkeley; M.Ed., University of California, Los Angeles

MBOLO, BILLINGTON, Transitional Studies  
B.A., United States International University, San Diego; M.A., California State University, Long Beach

MCADAM, SHERRY, English as a Second Language  
A.A., Fullerton Jr. College; B.A., Sonoma State University; M.A., University of San Francisco; Cert., Court Interpreter

MCATEER, ROBERT, Photography  
A.S., Cecil Community College; B.A.,  
Allentown College; M.F.A., University of Delaware

MCCARTHY, DENISE, English as a Second Language  
B.A., M.A., San Francisco State University

MCCARTHY, LEILAH, Physics  
B.S., Ohio State University; M.S., University of California, Davis

MCCARTHY, MONICA, Continuing Student Counseling  
A.A., City College of San Francisco; B.A.,  
M.S., San Francisco State University

MCCLAIN, LAURENE WU, Department Chair, Asian Studies  
B.A., University of California, Berkeley;  
M.A., Columbia University; J.D., University of California, Berkeley

MCCORMACK, IRENE, Vocational Nursing  
R.N., A.S., City College of San Francisco;  
B.A., New College of California

MCFADDEN, JAMES, Music  
B.A., St. Patrick’s College; M.A., San Francisco State University

MCFARLAND, SHEILA, Broadcast Electronic Media Arts  
B.A., University of California, Berkeley; M.A.,  
San Francisco State University; M.S., Cal State East Bay

MCGREEVY, ABIGAIL, Health Care Technology  
B.S.N., St. Louis University, St. Louis, MO

MCGUIRE, PHILLIS G., Interim Vice Chancellor, Research and Policy  
B.S., Wayne State University; M.A., University of California, Berkeley

MCGUIRE, WILLIAM, English/Humanities  
B.A., St. Louis University; M.A., San Francisco State University

MCINERNEY, WILLIAM, Chemistry  
B.S., Loyola University of Chicago; Ph.D.,  
Stanford University

MCKINNEY, JAMES, English as a Second Language  
B.A., San Francisco State University; Lic. és Let., University of Paris; M.A., San Francisco State University

MCKNIGHT, LINDY, Interim Vice Chancellor, Student Development  
B.A., Lewis and Clark College; M.A., Sonoma State University

MCLEAHAN, AMY D., Mathematics  
B.S., University of Massachusetts, Amherst;  
M.A., University of California, Santa Barbara

MCNEIL, DEBORAH J, Nursing, Licensed Vocational  
B.S.N., San Francisco State University;  
M.S.N., CNP, Drexel University

MCNICHL, JULITA, Transitional Studies  
B.A., Universidad Complutense, Spain; M.A.,  
San Francisco State University

MCNICHL, THOMAS, English as a Second Language  
B.A., Bucknell University; M.A., San Francisco State University

MEAGHER, CAROLE, Business  
B.A., University of California, Berkeley;  
M.B.A., Santa Clara University

MEDEIROS, AIMEE, Social Sciences/History  
B.A., University of California Berkeley; M.A.,  
San Francisco State University

MEHAN, JOAN, English  
B.A., University of San Francisco; M.A., San Francisco State University

MENENDEZ, THOMAS, Social Sciences/ Economics  
B.A., Rutgers University; M.A., San Francisco State University
Messer, Alisa, English
B.A., Mills College; M.A., State University of New York, Buffalo

Metzler, Charles, Computer Science
A.A., Massachusetts Bay Community College; B.A., University of Massachusetts; M.A., Syracuse University

Meunier-Fibelkorn, Muriel, Child Development & Family Studies
B.A., San Francisco State University; M.A., San Francisco State University

Meyer, Susan D., Business
B.A., San Francisco State University

Mijatovic, Katarina, English as a Second Language
B.A., M.A., San Francisco State University

Miller, David A., Automotive/Motorcycle-Construction & Building Maintenance
Journeyman Auto Mechanic

Miller, H. Brown, English
B.A., M.A., San Francisco State University

Miller, Wendy L., Fashion
B.A., University of Michigan

Miraglia, Sheri, Biological Sciences
B.A., California State University, Fullerton; Ph.D., University of California, Irvine

Mireles, Enrique, Continuing Student Counseling
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

Mitchell, Kathleen, Career Development Counseling
A.A., City College of San Francisco; B.A., University of San Francisco; M.A., University of Santa Clara; M.A., John F. Kennedy University; Ed.D., University of San Francisco

Mohammadzadeh, Sonny, Mathematics
B.S., Ph.D., University of California, Davis

Mojica, Jay, English as a Second Language
B.A., M.A., San Francisco State University

Mojica, Marco A., Latin American & Latino Studies
B.A., SF State University; M.A.I.A., Ohio University

Momjian, Gohar, Executive Assistant to the Chancellor
B.A., University of California, Los Angeles; M.A., Stanford University

Monajami, Siros, Library and Learning Resources
B.A., M.A., Ph.D., University of Paul Valery, France; MLIS, University of California, Berkeley

Money-Collins, Holly J., Environmental Horticulture & Floristry
B.S., California Polytechnic State University, San Luis Obispo

Montemayor, Roland, Interim Dean, Financial Aid Programs
B.A., San Jose State University; M.A., San Jose State University

Moody, Cindy, Mathematics
A.B., M.A., University of California, Berkeley

Morales, Leslie, Business
B.A., M.A., San Francisco State University

Moran, Rita, English as a Second Language
B.A., University of California, Berkeley; M.A., San Francisco State University

Moreno, Edward W., Social Sciences/History
B.A. University of California, Los Angeles; M.A., San Francisco State University

Moriwaki, Glen, Art
B.A., M.A., M.F.A., University of California, Berkeley

Moriwaki, Kathleen M., English as a Second Language
A.B., University of California, Berkeley; M.A., San Francisco State University

Morse, James S., Culinary Arts and Hospitality Studies
A.A., Diablo Valley College; A.S., City College of San Francisco

Moss, Carol Bell-Thomas, Library and Learning Resources
B.A., M.A., San Francisco State University

Motamedi, Isabelle, Foreign Languages
M.A., Universite Stendhal, Grenoble; M.A., Universite Jean Moulin Lyon 3

Mueller, Keith, Engineering and Technology
A.S., City College of San Francisco; B.S., M.S., M.B.A., University of California, Davis

Mueller, Madeleine N., Department Chair, Music
A.A., Bakersfield College; B.A., University of California, Berkeley; M.A., San Francisco State University

Mullen, Dennis, Business
B.A., UC Berkeley; B.A., San Jose State University; M.B.A., UC Berkeley; CPA - State of California

Muller, Lauren S., Department Chair, Interdisciplinary Studies
B.A., Phi Beta Kappa University of North Carolina, Chapel Hill; M.A., Bread Loaf School of English, Middlebury College; A.B.D., University of California, Berkeley

Mun, Vivien C., Disabled Students Programs and Services
B.Ed., University of Malaya, Malaysia; M.A., San Francisco State University

Murillo, Alice, Dean, Evans Campus
B.S., Catholic University of Puerto Rico, Ponce; M.A., University of Florida, Gainesville; MLE, Harvard University Institute; Ph.D., Florida State University, Tallahassee;

Murray, Edward, English as a Second Language
B.A., M.A., San Francisco State University; M.A., California State University, Sacramento

N

Nagura, Diane Terumi, Physical Education and Dance
B.A., M.A., San Francisco State University

Nava, Lisa, Nursing-Registered
B.S., R.N., M.S.N., University of California, San Francisco

Nayer, Louise, English
B.A., University of Wisconsin; M.A.H., State University of New York, Buffalo

Needham, Michael, Business
B.S., University of Pennsylvania; M.B.A., University of Chicago

Nelson-Lundy, Jessica, English
B.A., M.A., San Francisco State University

Ng, Ronald, Culinary Arts and Hospitality Studies
A.S., City College of San Francisco

Nickliss, Alexandra M., Social Sciences/History
B.A., M.A., San Jose State University; Ph.D., University of California, Davis

Nielsen, Leif, English as a Second Language
B.A., Hellerup Seminarium in Copenhagen; M.A., San Francisco State University

Niosi, Andrea, Library and Learning Resources
B.A., The Evergreen State College, Olympia, Washington; MLIS, University of California, Los Angeles

Nishihira, Robert M., Department Chair, Photography
B.A., University of California, Los Angeles
NISHIMURA, ARTHUR, Behavioral Sciences/Sociology
A.B., University of California, Berkeley; M.A., Ph.D., University of Washington

NIXON, SHANNON, Biological Sciences
B.S., California State University, Long Beach; M.A., Ph.D., University of California Riverside

NORRIS, JENNIFER, Business
B.A., California State University, Hayward; M.A., College of Notre Dame

NUNEZ, SAL, Health Education
B.A., New College of California; M.S., Nova Southeastern University; Ph.D., Capella University

OAKLEY, JOHN D., Culinary Arts and Hospitality Studies
Former Executive Chef

OBENCHAIN, CYNTHIA, Department Chair, International Student Counseling
B.A., M.A., San Francisco State University

O’CONNELL, DANIEL
B.A., Western Washington University; M.A., San Francisco State University

O’DONNELL, SHEILA
B.A., Sheffield University, England; M.A., San Francisco State University

OGDEN, AARON, Culinary Arts and Hospitality Studies
A.A., City College of San Francisco; Certificate, Culinary Institute of America

OGRODNIK, JAYNE, English as a Second Language
B.A., Elmira College, Elmira, NY; M.A. University of Kansas, Lawrence

OLIVENBAUM, LINDA, Director, California Early Childhood Mentor Program
B.A., University of Pennsylvania; M.Ed., Temple University

OLIVIER, DIANE, Art
B.F.A., Rhode Island School of Design; M.A., San Jose State University; M.F.A., University of California, Berkeley

ORR, DOUGLAS, Social Sciences/Economics
B.A., Colombia University; M.A., Ph.D. University of Colorado

O’ROKE, LINDA
M.A., San Francisco State University

ORROSS, MICHELE OCHOA, Nursing
A.S., City College of San Francisco; B.S., San Francisco State University; M.P.A., California State University, Hayward

ORTIZ, CARLOS, English as a Second Language
B.A., San Francisco State University

OSBORNE, ELLIOT C., New Student Counseling
A.A., Chabot College; B.A., Pacific Union College; B.A., M.S., California State University, Hayward; M.Div., Ph.D., Andrews University, Michigan

OSBORNE, MARIE, New Student Counseling
B.A., M.A., San Francisco State University

OSTREA, EMILY S, Nursing, Licensed Vocational
Ph.D.(candidate), Columbia Northcentral University, AZ; M.B.A., Columbia Southern University, Orange Beach, AL; B.S.N., California State University, Domínguez Hills, CA

OVERTON, ANN, English as a Second Language
B.A., American University, Washington D.C.; M.A., University of San Francisco

OWENS, RHONELLA C., Continuing Student Counseling
B.S., Western Michigan University; M.Ed., Antioch Graduate School of Education; Ph.D., California Institute of Integral Studies, San Francisco

OWENS, WENDY, Library and Learning Resources
B.A., San Francisco State University; MLIS San Jose State University

OXSEN, RICHARD G., Social Sciences/History
B.A., University of San Francisco; M.A., San Francisco State University

PADILLA, RODOLFO, Business
A.S., College of San Mateo; B.A., M.A., San Francisco State University

PALACIO, MITCHELL T., Physical Education and Dance
B.A., San Francisco State University

PARATORE, VINCENT, Culinary Arts and Hospitality Studies
B.A., San Francisco State University

PARENTEAU, MURIEL L., Department Chair, Disabled Students Programs and Services
B.A., New College of the University of South Florida; M.S., San Francisco State University; M.S.C., New Seminary, New York, New York

PARKER, JAMES, English as a Second Language
B.A., San Francisco State University

PARKS, KAREN, Business
A.A., Merced College; B.S., California State University, Stanislaus; M.B.A., California State University, Dominguez Hills

PARR, DAVID, Theatre Arts
M.A., University of Illinois

PASTORE, ANGELE, Foreign Languages
B.A., M.A., University of California, Berkeley

PAUL, ALAN B., Foreign Languages
A.A., Phoenix College; B.A., University of California, Santa Barbara; Maestieda, Universidad Nacional Autónoma de Mexico

PAULY, MALINDA, Chemistry
B.S., Eckerd College; Ph.D., University of California, Los Angeles

PAZ, LEO, Department Chair, Philippine Studies
B.A., De La Salle University/OLAS; M.A., Ed.D., University of San Francisco

PEREZ, LINDA, Business
B.S., San Francisco State University; J.D., University of San Francisco

PERSIKO, CRAIG, Department Chair, Computer Science
B.S., Harvey Mudd College; M.S., New York University, New York

PETERKOFSKY, NI, Mathematics
B.S.Eng., Shanghai College, China; M.S., Ph.D., University of Southern Mississippi

PETERSON, SARA, Mathematics
B.A., Webster University; M.A., M.B.A., Washington University

PHILLIPS, CATHERINE ANNE, English as a Second Language
A.A., City College of San Francisco; B.A., M.A., San Francisco State University; Ph.D., Arizona State University

PIEPER, DAVID, Social Sciences/Economics
B.A., University of Toronto; M.B.A., University of California, Berkeley; M.A., San Francisco State University

PIOTKOWSKI, DENNIS, Department Chair, Mathematics
B.A., Ohio University; M.A., University of California, Berkeley

PLATFORD, OLIVIA, English as a Second Language
B.A., Cambridge University, U.K.; B.A., M.A., University of Paris, France
PODENSKI, FRANCINE P., Department Chair, Broadcast Electronic Media Arts
B.A., M.A., San Francisco State University

POGGE, CRIMA, Biological Sciences
B.A., M.A., Justus-Liebig University of Giessen; M.A., San Francisco State University

PON, TERESA, English as a Second Language
B.A., San Francisco State University; M.A., Golden Gate University

PRICE, ROBERT T., Chemistry
A.B., Princeton; Ph.D., University of California, Berkeley

PRIESTLEY, CAROLINE, Program Coordinator, Institute for International Students
B.A., University of Exeter; M.Litt., University of Edinburgh; M.A., University of Leicester

PUGH, ROBIN, Business
B.A., University of California, Berkeley

PUGH, SUZANNE, Art
B.A., The University of Georgia; M.F.A., Kansas State University

Q

QUADRA, INDIANA G., Department Chair, Career Development Counseling
B.A., San Francisco State University; M.A., University of San Francisco

QUEEN, MIRIAM, English as a Second Language
B.A., State University of New York, New York; M.A., School of International Training, Vermont

QUEZADA, OLIVERIO, Art
B.F.A., California State University, Long Beach; M.A., California State University, San Jose

QUINN, DENISE, English as a Second Language
B.A., M.A., State University of New York, Cortland

QUINTANA, ALEJANDRO F., English as a Second Language
B.A., San Francisco State University

R

RANDOLPH, ALVIN, New Student Counseling
B.A., University of Iowa; M.A., San Francisco State University

RASKIN, STEVEN, Photography
M.F.A., California College of Arts and Crafts

RAZUMOVA, INNA, Art
B.F.A., University of California, Los Angeles; M.F.A., San Jose State University

RE, DOUG, Director, ITS Systems and Operations
B.A., M.A., San Francisco State University

REGINO, NESTOR C., Architecture
A.B., M.Arch., University of California, Berkeley

REICHMAN, LINDA K., English as a Second Language
B.A., M.Ed., University of Washington, Seattle

REID, ANNA, Physical Education and Dance
B.Ed., University of Hawaii; M.A., San Francisco State University

REINSDORF, TANNIS C., Department Chair, Culinary Arts and Hospitality Studies
A.S., City College of San Francisco; B.A., Saint Mary’s College; M.A. Education, San Francisco State

REESE, CAROL H., Language Center/Foreign Languages
B.A., Reed College; M.A., Ph.D., University of California, Berkeley

REN, TIFFANY, Department Chair, Dental Assisting
B.A., University of California, Berkeley

RENO, PEGGY, New Student Counseling
B.A., San Francisco State University; M.A., University of San Francisco

REYES, JOE A., Biological Sciences
B.A., San Jose State University; Ph.D., University of California, Berkeley

RICO, STEPHEN, Child Development and Family Studies
B.S., University of California, Davis; M.A., Stanford University

RIEHE, ELIZABETH, Culinary Arts and Hospitality Studies
B.A. California State Hayward

RIGG CARRIERO, TODD M., Astronomy
A.S., Hudson Valley Community College; B.S., California Polytechnic State University, San Luis Obispo; M.S., University of Michigan

RINCON, DORY R., Health Information Technology/Medical Assisting
A.S., City College of San Francisco; B.A., St. Mary’s College; MA, San Francisco State University

ROBERSON, ROSE MARIE, Director, Financial Aid Services
B.A., Pace University; M.S., Fordham University; Ed.D., Alliant University

ROBERTS, LAURIE, English as a Second Language
B.A., Sonoma State University; M.A., San Francisco State University

ROBINSON, JOHN, English as a Second Language
B.A., Stanford University; M.A., San Francisco State University

ROBINSON, MARK D., New Student Counseling
A.A., City College of San Francisco; B.A., M.A., Indiana University; Ph.D., The Victorian University of Manchester, United Kingdom

ROBISON, STEPHANIE, Art
B.F.A., Marylhurst University, Marylhurst, Oregon; M.F.A., University of Oregon, Eugene, Oregon

RODRIGUEZ, DORA, Disabled Students Programs and Services
B.A., M.A., San Francisco State University

ROMAN-MURRAY, CARMEN R.
B.S., M.A., San Francisco State University; M.A., California State University, Sacramento

ROMANO, LISA C., New Student Counseling
A.S., City College of San Francisco; B.S., M.A., San Jose State University

ROSALLES-URIBE, MARIA, Transitional Studies
B.A., M.A., San Francisco State University

ROSE, MEREDITH, English
B.S., University of Florida, Gainsville; M.F.A., University of Massachusetts, Amherst

ROSEN, EDWARD, English as a Second Language
B.A., City College of New York, NY; M.A., San Francisco State University

ROSENBERG, STEPHANIE, Business
B.S., Carlow University, Pittsburgh, PA

ROSENTHAL, NADINE, Department Chair, Learning Assistance
B.A., University of California, Berkeley; M.Ed., Northeastern University, Boston, MA

ROSS, GORDON F., English
B.A., M.A., University of California, Berkeley

Roth, Robin H., Health Education
B.A., Antioch University, Yellow Spring, Ohio; M.S., San Francisco State University

ROTHSTEIN, IRA, Cinema
B.A., Indiana University, Bloomington; B.A., University of California, Berkeley; M.A., San Francisco State University
S

SABOLBORO, JESSICA, Behavioral Sciences/Sociology
B.A.(2), M.S., San Francisco State University

SAGINOR, KAREN, Library and Learning Resources
B.A., University of Virginia; MLIS, University of California, Berkeley

SANELLI, ANDREA, English
B.A., California State University, Northridge; M.A., San Francisco State University

SANEE, FARIBORZ, Interim Dean, Faculty Support Services and Course/Room Scheduling
B.S., M.S., Southern Illinois University; Dr. Engr., University of Florida

SANFORD, CURT, English as a Second Language
B.A., Humboldt State University; M.A., San Francisco State University; Ed.D., San Francisco State University

SANTOS, DON, Art
B.A., California State University, Chico; M.A., M.F.A., San Jose State University

SANTOS, SAMUEL, Associate Dean, Student Activities

SAPIENZA, JOHN PAOLO, English
B.A., Amherst College; M.A., Ph.D., Temple University

SAUVE, JAMES, English
B.A., Whitman College; M.A., Claremont Graduate School

SCHALL, SUSAN, English as a Second Language
B.A., Buffalo State College; M.A., San Jose State University

SCHATZ, JASON, Computer Science
B.S., M.S., University of California, Davis

SCHNEIDER, LYNN, English as a Second Language
B.A., University of California, Berkeley; M.A., San Francisco State University

SCHOLNICK, NADIA F., English as a Second Language
A.A., Long Beach City College; B.A., M.A., California State University, Long Beach

SCHUBERT, LOUIS, Social Sciences/Political Science
B.A., University of Connecticut; M.A., Ph.D., University of Southern California

SCHURICH, ROBERT, English as a Second Language
B.A., University of Wisconsin-Madison; M.A., San Francisco State University

SCHUSTEFE, AARON, Mathematics
B.A., University of California, Santa Cruz; M.A., Ph.D., University of California, Los Angeles

SCOLARI, LAURIE, Interim Dean, Counseling, Student Support and Outreach and Recruitment Services
B.A., San Jose University; M.A., University of San Francisco

SCOTT, DIANA G., Art
B.A., University of California, Santa Barbara; M.A., San Francisco State University

SCOTT, RODGER, Transitional Studies
B.A., M.A., Texas Tech University; Ph.D., University of New Mexico, Albuquerque

SCRAFFORD, BARBARA, English
A.A., North Idaho College; B.A., M.A., San Francisco State University

SECKMAN, JOHN, Graphic Communications
B.F.A., Florida State University

SEID, PATRICIA, English as a Second Language
B.S., University of Southern California; M.A., University of Missouri

SELECK, DENISE, English as a Second Language
A.S., City College of San Francisco; B.A., M.A., San Francisco State University

SHEAFLER, CHRIS J., Transitional Studies
B.A., University of California, Berkeley; M.A., San Francisco State University

SHAW, BARBARA, English as a Second Language
B.A., M.A., State University of New York, Stonybrook

SHEILDS, WILLIAM, Department Chair, Labor and Community Studies
B.A., Yale University; M.A., Antioch University

SHOA, WILLIAM, English as a Second Language
B.A., Denison University, Granville, OH; M.A., San Francisco State University

SHORE, ELISA, English as a Second Language
B.A., University of Bridgeport, CT; M.A., San Francisco State University

SILVA, LETICIA
B.A., San Francisco State University; M.A., San Francisco State University

SILVA, MANUEL, Vocational Nursing
A.A., Solano Community College; B.S., University of California, Davis

SILVER, ELIZABETH, English as a Second Language
B.A., M.A., San Francisco State University

SILVERBERG-WILLIS, LUANA, Physical Education and Dance
B.A., College of St. Teresa; M.A., Mills College

SIMON, LESLIE, Women's Studies; Project SURVIVE
B.A., University of Michigan; M.A., University of California, Los Angeles; M.A., University of California, Berkeley

SKINNER, JANET, Health Education
B.A., Brown University, R.I.; M.P.H., University of California, Berkeley

SKOLNICK, JULIAN, Business
B.A., University of New Mexico, Albuquerque

SMALL, WILLIAM, English as a Second Language
B.A., M.A., San Francisco State University

SMITH, DANIEL A., Mathematics
B.A., Whitman College; M.A., Ph.D., University of Illinois at Urbana-Champaign

SMITH, LESLIE, Associate Vice Chancellor, Governmental Relations
B.A., University of California, Santa Barbara; M.B.A., University of California, Berkeley; Doctoral Studies, Tulane University

SMITH, LIA, English as a Second Language
B.A., University of California, Los Angeles; M.A., University of San Francisco

SNEED, JANE, Department Chair, Transitional Studies
B.A., Mills College; M.A., San Francisco State University
SOLOW, MICHAEL, Chemistry
B.S., University of California, Santa Cruz; Ph.D., University of California, Berkeley

SONEJI, HITESH, Engineering and Technology
B.S., M.S., Carnegie Mellon University; M.Sc., Lund University, Sweden

SONG, GRACE, English as a Second Language
M.A., University of Birmingham, Great Britain

SPARKS, JACK, Continuing Student Counseling
B.A., M.A., San Diego State University

SPEARS, DEANNE K., English
B.A., M.A., University of Southern California

SPINGOLA-CONNOLLY, JEANNE, New Student Counseling
B.A., San Francisco College for Women; M.A., University of San Francisco

STAFF, CONI, Physical Education and Dance
B.S., Illinois State University; M.A., University of California, Berkeley; Master of Divinity, Pacific School of Religion

STARR, CLARA, Dean, Human Resources/Temporary Dean of Library/Learning Resources Center
B.S., M.S., Tennessee State University, Nashville

STASTNY, DEBRA, Radiation Therapy Technology
A.S., Foothill College; B.A., San Francisco Conservatory of Music; M.S., Touro University International

STEELE, NATHAN, Speech Communication
B.A., M.A., San Francisco State University

STELLMAN, CHRISTOPHER J., Culinary Arts and Hospitality Studies
B.A., State University of New York, Binghamton; B.S., University of Massachusetts, Amherst

STEVE
S, ALICE, Mathematics
B.A., University of California, Berkeley; M.A., Ph.D., University of California, Davis

STEVENSON, HOLLY, English as a Second Language
B.A., M.A., San Francisco State University

STEVENSON, DAVE, Graphic Communications
B.A., University of California, Berkeley; M.A., California State University, San Francisco

STEWARD, DEBRA, New Student Counseling
B.A., University of Arkansas, Pine Bluff; M.S., California State University, Hayward

STILES, PETER H., Business
B.S., California State University, Chico; M.B.A., College of Notre Dame

STOFFERS, PETER, New Student Counseling
B.A., University of California, Santa Cruz; M.S., San Francisco State University

STOOPS, BARBARA, English as a Second Language
B.A., University of Wisconsin; M.Phil., Yale University; M.A., San Francisco State University

STRAUS, AMBER, Learning Assistance
B.A., Swathmore College; M.A., San Francisco State University

SU, TIMOTHY, Chemistry
B.S., University of California, Santa Cruz; Ph.D., University of California, Los Angeles

SUGAWARA, JACK, Transfer Counseling
B.A., M.S., San Francisco State University

SUMMERS, KATHRYN J., Nursing
R.N., B.S., Dillard University; M.S., University of California, San Francisco

SWINGLE, STEPHEN, Physics
B.S., Engineering Physics, University of California, Berkeley; M.A., Physics, University of California, Santa Barbara

SZAJKO, LIDIA, Department Chair, Cinema
B.A., Oberlin College; M.F.A., San Francisco State University

SZOMBATHY, AGNES, Library
B.A., Pedagogical University; M.L.S., San Jose State University

T

TA, MINH-HOA, Dean, Chinatown/North Beach Campus and School of International Education and English as a Second Language
B.A., University of California, Berkeley; M.S.W., San Francisco State University; Ed.D., University of San Francisco

TAHA, DARIAN, Computer Networking and Information Technology
B.A., Menlo College, Atherton, California

TAHA, RICHARD, Computer Networking and Information Technology
B.S., College of Aeronautical Engineering, London, England; M.B.A., California Western University, Santa Ana, California

TAN, BIE HAN, Mathematics
B.S., State University of New York, Binghamton; M.A., University of California, Berkeley

TANG-QUAN, ETHEL, Speech Communication
B.A., University of San Francisco; M.A., San Francisco State University

TARPEY, JOHN, Biological Sciences
B.S., University of San Francisco; Ph.D., University of California, Berkeley

TARQUINO, EVE, English as a Second Language
B.A., M.A., San Francisco State University

TERAO, LENNI Y., English as a Second Language
B.A., University of California, Berkeley; M.A.T., Seton Hall University, South Orange, NJ

TERNAR, MINE Y., Art
B.A., Bennington College, Vermont; M.A., Mimar Sinan University, Istanbul, Turkey; M.F.A., University of California, Berkeley

TETI, FREDERICK A., Mathematics
B.S., Yale University; Ph.D., University of California, Berkeley

THIRY, PIERRE S., Computer Networking and Information Technology
Engineer, University of Louvain, Belgium; M.S., Ph.D., University of California, Berkeley

THOMAS, ARDEL M., Department Chair, Lesbian, Gay, Bisexual, and Transgender Studies
B.A., University of Colorado, Boulder; M.A., University of Colorado, Boulder; Ph.D., Stanford University

THOMAS, JULIA, English as a Second Language
B.A., M.A., San Francisco State University

THOMPSON, RODERICK, Mathematics
B.S., University of London; M.S., Portland State University; M.Div., Church Divinity School of the Pacific

THOMPSON, SARAH, Continuing Student Counseling
B.A., M.A., Antioch University, San Francisco

THORNTON, KYLE R., Department Chair, Radiologic Sciences
A.S., Los Angeles City College; B.A., San Francisco State University; M.Ed., Touro University International

TINGLE, JUDY W., Vocational Nursing
RN, B.A., Georgia State University; M.S.N., Emory University
TOEBE, CAROLE S., Biological Sciences
B.S., University of Missouri; M.S., Ph.D., Tulane University

TORLAKSON, JAMES, Art
B.F.A., California College of Arts and Crafts; M.A., San Francisco State University

TORRES, CHITA, Department Chair, Nursing, Licensed Vocational
B.S.N., Far Eastern University, Manila, Philippines; M.S.N., University of Phoenix

TORRES, EDGAR, Department Chair, Latin American and Latino/a Studies
A.A., City College of San Francisco; A.B., M.A., C.P.I.L., University of California, Berkeley

TRAHAN, NICOLE, English as a Second Language
B.A., San Francisco State University; M.A., Sacramento State University

TRAN, TRINH, Biological Sciences/Nutrition
B.S., Ph.D., University of California, Davis

TRAUT, BIBIT, Biological Sciences
B.A., M.S., University of California, Santa Cruz; M.S., Oregon State University; Ph.D., University of California, Davis

TREGO, ROLAND P., English as a Second Language
B.A., University of Idaho; M.A., San Francisco State University

TRUITNER, JAMES, Behavioral Sciences/Sociology
A.A., Fresno City College; B.A., M.A., University of California, Berkeley

TSE, ANNIE, Health Education
A.S., City College of San Francisco; B.S., San Francisco State University; M.P.H., San Jose State University

TURKS, VICTOR, English as a Second Language
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

UBUNGEN, DENNIS F., New Student Counseling
A.A., City College of San Francisco; B.A., M.S.W., San Francisco State University

UBUNGEN, JOSEPHINE M., Career Development Counseling
B.A., M.S., San Francisco State University

UCHIDA, RICHARD H., Business
B.A., University of California, Berkeley; M.A., San Francisco State University; J.D., Golden Gate University

V

VALENTINE, ALEXANDER, Library and Learning Resources
A.B., Morehouse College; M.L.S., Atlanta University

VALIENTE, HERVING, Continuing Student Counseling
B.A., M.S., San Francisco State University

VAN DYKE, MARCIA, Student Health Services
B.A., Syracuse University, New York; M.E.D., Columbia University, New York; Ph.D., Pacific Graduate School of Psychology

VAN DERSLICE, ANNE, Disabled Students Programs and Services
B.A., San Jose State University; M.A., San Francisco State University

VAN HASSELT, JADE, Child Development & Family Studies
B.A., University of Michigan; M.A., San Francisco State University

VANONCINI, JOHN, Physical Education and Dance
B.A., University of California, Santa Barbara; M.A., United States Sports Academy, Alabama

VARGAS, NANCY, Continuing Student Counseling
B.A., San Francisco State University; M.A., Santa Clara University

VASQUEZ-VEGA, MIGUEL A., Foreign Languages
B.A., Westminster College, Salt Lake City, Utah; M.A., University of Utah; Ph.D., Stanford University

VAYNGORTIN, LEV, Mathematics
M.S., Moscow State University; Ph.D., Kazan Institute of Chemical Technology

VEERATHANONGDECH, PANIDA, English as a Second Language
A.S., City College of San Francisco; B.A., San Francisco State University

VERDUGO, DIANA L., Career Development Counseling
B.S., M.S., Arizona State University, Tempe

VEROSKY, JOHN, Mathematics
B.S., M.S., University of Texas at El Paso; Ph.D., Tulane University

VILLALTA, HUGH A., Behavioral Sciences/Psychology
A.A., City College of San Francisco; B.A., San Francisco State University; M.A., John F. Kennedy University

VILLASANA-RIUZ, ROSARIO, Child Development & Family Studies
A.A., City College of San Francisco; B.A., New College of California; M.A., San Francisco State University

VILLAZANA-PRICE, NORMA, Child Development and Family Studies
A.A., City College of San Francisco; B.A., New College, San Francisco; M.A., San Francisco State University

VINALS, JULISSA B., New Student Counseling
A.A., Skyline College, B.A., M.S., San Francisco State University

VIVRETTE, CAROL, Disable Students Program and Services
B.A., M.S., San Francisco State University

VO, DANNY, Mathematics
B.S., M.S., Washington State University

VOGT, LEE, English as a Second Language
B.A., California State University, Hayward; M.A., University of San Francisco

W

WAGNER, LISA, English as a Second Language
B.A., University of Santa Cruz; M.A., San Francisco State University

WALL, ELLEN H., English
B.A., Texas Christian University; M.A., George Washington University

WALLIS, DIANE KAY, English as a Second Language
B.A., M.A., San Francisco State University

WALSH, LAURA J., English as a Second Language
B.A., University of Nebraska, Omaha; M.A., San Francisco State University

WANG, ALICIA, English as a Second Language
B.A., University of Hawaii, Honolulu

WANG, TIEN RITA, Foreign Languages
B.A., National Taiwan Shihfian University; M.A. (Education), M.A. (English), San Francisco State University

WATSON, JOHN, New Student Counseling
B.S., Cal State Hayward University; M.P.A., Cal State University, East Bay

WEBB, NANCY J., Computer Science
B.A., University of Maryland

WEBSTER, CARLOS, New Student Counseling
A.A., City College of San Francisco; B.A., M.A., San Francisco State University
WEICHLERT, KAREN, English as a Second Language  
B.A., M.A., San Francisco State University

WEIL, MELINDA L., Astronomy  
B.S., San Francisco State University, M.S., Ph.D., University of California, Santa Cruz

WEINSTOCK, GLORIA, Department Chair, Theater Arts  
B.A., Antioch West University, San Francisco

WEISMAN, VICKI, Transational Studies  
B.A., Reed College, Portland, OR; M.A., San Francisco State University

WENDEL, NICOLE, English as a Second Language  
B.A., University of Wisconsin, Madison; M.A., San Francisco State University

WEST, ANN, English  
B.A., College of Mt. St. Vincent; Ph.D., University of California, Berkeley

WESTERBERG, KARL M., Physics  
B.S., Carnegie-Mellon University; Ph.D., Princeton University

WHALEN, KRISTINA L., Speech Communication  
B.A. Missouri State University; M.S. Florida State University; Ph.D. Florida State University

WHITE, EVA, Child Development & Family Studies  
B.A., Jackson State University, Jackson, MI; B.A., San Francisco State University

WHITE, KATHLEEN, Department Chair, Child Development & Family Studies  
B.A., M.A., San Francisco State University

WHITEHEAD, JOHN, Social Sciences/Economics  
B.A., University of California, Berkeley; M.A., University of Massachusetts, Amherst

WHITESIDE, ANNE, English as a Second Language  
B.A., University of California, Santa Cruz; M.A., University of California, Berkeley

WHITTOM, SUSAN, Child Development & Family Studies  
B.A., University of Mississippi; M.A., San Francisco State University

WIESE, KATRYN, Department Chair; Earth Sciences  
B.S., Caltech; M.S., Oregon State University

WILENKSY, DEBRA, English as a Second Language  
B.A., State University of New York, Binghamton; M.A., San Francisco State University

WILLE, PATRICK, Business  
A.S., City College of San Francisco; B.S., Cornell University; M.A., San Francisco State University

WILLET, JOHN H., English as a Second Language  
B.A., M.A., San Francisco State University

WILLIAMS, JESSICA R., Social Sciences/Political Science  
B.A., University of Pennsylvania; M.Phil., University of Cambridge

WILSON, JOAN, English  
B.A., M.A., University of California, Berkeley

WINN, SALLY, English as a Second Language  
B.A., Fairhaven College, Bellingham, WA; M.A., Arizona State University

WINSTON, TERRI, Broadcast Electronic Media Arts  
B.Engr., Purdue University, Indiana

WISE, KIM, African American Scholastic Programs  
A.A., City College of San Francisco. B.A. & M.A., San Francisco State University

WISE, NICOLE Y., New Student Counseling  
A.A., City College of San Francisco; B.A., Spelman College, Atlanta; M.S., San Francisco State University

WONG, JAMIE M., Physical Education and Dance  
B.S., San Francisco State University; M.A., St. Mary's College

WONG, JAMES ZEE MON, New Student Counseling  
A.A., University of California Santa Barbara; M.A., University of San Francisco; M.Div., San Francisco Theological Seminary

WONG, KATHLEEN JOYCE, English as a Second Language  
B.A., University of California, Berkeley

WONG, ANNIE M., English as a Second Language  
B.A., University of California, Berkeley; M.A., San Francisco State University

WONG, BRIAN, Chemistry  
B.S., University of California, Berkeley; Ph.D., Massachusetts Institute of Technology

WONG, MIMI, English as a Second Language  
B.A., Michigan State University, East Lansing, MI

WONG-MINETA, CHRISTINE, Health Education  
B.A., University of California, Santa Cruz; M.P.H., University of California, Los Angeles

WONG, TRACEE, New Student Counseling  
A.A., Pasadena City College; B.A., University of California, Los Angeles’ M.S., Cal State Northridge

WONGPRASERT, TANICHYA, Speech Communication  
B.A., Chulalongkorn University, Bang Kok; M.A., Ph.D., Washington State University

WOOD, PETER, Computer Networking and Information Technology  
B.A., University of California, Berkeley; M.A., Sonoma State University

WOSTNER, Ulf, Mathematics  
Filosofie Magister, University of Lund, Sweden; C.Phil., University of California, Berkeley

WU, ANA, English as a Second Language  
B.A., University of Sao Paulo, Brazil; M.A., San Francisco State University

Y

YAGLE-SNEAD, LYNN, Child Development & Family Studies  
B.A., California College of the Arts; M.A., San Francisco State University

YAMASHIRO, LISA, Consumer Education/Nutrition Assistant Program  
B.S., University of California, Berkeley; M.Ed., University of Phoenix

YEE, CHRISTINA, Language Center/Foreign Languages  
B.A., National Taïwan Normal University; M.A., San Francisco State University

YEE, DAVID, Dean, School of Science and Mathematics  
B.S., M.S., San Francisco State University

YEE, EDNA, Student Health Services  
B.S.N., San Francisco State University; San Francisco; M.S.N., University of California, San Francisco

YEE, FRANK, English as a Second Language  
B.A., California State College, Sonoma; M.A., San Francisco State University

YEE, JILL, Behavioral Science/Psychology  
B.A., University of California, Berkeley; M.S., San Francisco State University; J.D., Golden Gate University

YEE, RODNEY, English as a Second Language  
B.A., M.A., San Francisco State University

YEE, SUE LIM, New Student Counseling  
B.A., San Francisco State University; M.S.W., University of California, Berkeley
YIM, LESLIE KING, Radiation Therapy Technology
A.A., City College of San Francisco; B.A., San Francisco State University

YIU, WINNIE L.F., Financial Aid
Teachers' Certificate, Northcote College of Education, Hong Kong; B.S., M.Ed., University of Hawaii, Manoa

YNGOJO, MARCUS, New Student Counseling
B.A., M.A., San Francisco State University

YOUNG, JOAN HANFORD, English as a Second Language
B.A., Colorado Women's College, Denver; M.A., San Francisco State University

YU, HOWARD K., New Student Counseling
B.A., University of California, Berkeley; M.S., San Francisco State University; Ph.D., University of Arizona, Tuscon

YRUN, MARIO, Business
B.A., Pomona College; M.B.A., University of Chicago

Z

ZANETTO, JANET S., English as a Second Language
B.A., University of California, Santa Barbara; M.A., San Francisco State University

ZIMMERMAN, CARIN C, Engineering & Technology
B.A., University of California, Berkeley; M.S., University of California, Davis; Ph.D., University of California, Davis

ZIMMERMAN, SUSAN, English
B.A., M.A., University of California, Berkeley; M.S., San Francisco State University

ZLOTNICK, JAN, Nursing
R.N., Santa Fe Community College, Florida; B.A., M.Ed., Ed.S., University of Florida

ZOLL, SHARYN, Transitional Studies
M.A., San Francisco State University

ZUMWALT, MARTA, Chemistry
B.S. Sonoma State University Ph.D., University of California, Davis
Adjunct Faculty

A

ABUSAAD, RONI W., Interdisciplinary Studies
B.A., Bethlehem University; M.A., Malta University; M.A., UC Berkeley; Ph.D., Gent University

ACCORNERO, MARC
B.A., University of California, Los Angeles; M.A., University of California, Berkeley

AFSHAR, GOLNAR, Engineering and Technology
B.S., University of California Irvine; Ph.D., Georgetown University

AGORASTOS, EMMANUEL D.
B.A., University of California at Berkeley

AGUILAR, FERNANDO, English as a Second Language
B.A., M.A., San Francisco State University

ALEXANDER, ALEXIS
B.A., University of Southern California; M.S. San Francisco State University; M.A. National University

ALDIS, KEITH, Health Care Technology
B.A., San Francisco State University

ALIANO, JOHN, C.
B.A., University of California, San Diego; M.F.A., Loyola Marymount University

ALLEN, KENNETH, Health Care Technology
B.A., University of California, Santa Barbara, EMT-Paramedic

ALLEN, MARY
B.S., Ohio State University; M.A., University of Michigan

ALLEN, RICHARD, Health Care Technology
B.A., San Francisco State University; EMT-Paramedic

ALTIN, MARK, Broadcast Electronic Media Arts
M.A., Berklee College of Music in Boston

ALVARADO, SALVADOR, Transitional Studies
B.A., B.S., Universidad Autonoma de El Salvador

ANCHETA, REBECCA, Behavioral Sciences
B.A., University of California, Santa Barbara; Ph.D., University of California, San Francisco

ANDERSON, BARBARA
M.S., Columbia University

ANDERSON, JOHN C. JR.
B.A., University of Toledo; J.D., Golden Gate University

ANIMA, ROBERTO, Earth Sciences
B.A., Ph.D., University of California, Santa Cruz

APARICIO, HUGO, Business
A.A., City College of San Francisco; B.A., San Francisco State University; M.B.A., Golden Gate University

ARAN, JOSE, Architecture
B.Arch., National University of Mexico

ARGENTI, MARY, Music
B.A., Dominican College; M.A., San Francisco State University

ARMSTRONG, KAREN, Fashion
B.A., San Francisco State University

ARNOLD, MARY R.
B.A., Moscow Pedagogical Institute of Foreign Languages, Russia; M.A., Ph.D., University of California, Berkeley

ARQUETTE, EDWARD J, Automotive/Motorcycle/Construction-Building Maintenance
B.A., Phoenix University, Arizona; Vocational Education Credentials, University of California, Berkeley

ARRIGOTTI, PAUL, Mathematics
B.S., Saint Mary's College of California; M.S., California State University; Hayward

ARRUDA, ELISABETH, Department Chair, Women's Studies
B.A., Boston College; M.A., San Francisco State University

ARROYO-NEVES, MARTHA, Library and Learning Resources
B.A., San Francisco State University; MLIS, San Jose State University

ARSOALANE, PAUL, Diagnostic Medical Imaging
A.S., City College of San Francisco; Physician Assistant, University of California, Davis; M.S.H.S., TUI University

ATAIE, ABDOLLAH, Engineering and Technology
B.S.E.E, U. of Science and Technology, Tehran; M.S.E.E., Boston University; Massachusetts, ENGD, NE University, Boston, Massachusetts.

ATKINSON, LYNNE
B.A., San Jose State University; M.A., San Francisco State University

AUYEUNG, MABEL, Child Development & Family Studies
B.A., M.A., University of Hong Kong; M.S., University of Wisconsin; M.Ed., San Francisco State University

AYER, FRANKLIN
B.S., Woodbury University, CA

AXT, ANITA, Foreign Language
A.A., B.A., University of California, Berkeley; M.A.T., College of Notre Dame; M.A., San Francisco State University

AYALA, RENE, Transitional Studies
B.S.M.T., Universidad Autonoma de El Salvador

AZARMI, REZA, Child Development & Family Studies
A.A., Contra Costa College; B.A., Isfahan University, Iran; M.A., San Francisco State University; M.P.A., University of San Francisco

AZEVEDO, NEYDE
B.A., Conservatorio Dramatico Musical, Sao Paolo; M.A., Indiana University

B

BABIN, JOANNE, Speech Communication
B.A., M.A., University of Pacific

BADLER, RANDOLPH D., Behavioral Sciences
B.A., California State University at Sonoma; M.A., Duquesne University; Ph.D., Professional School of Psychology at San Francisco

BADRAN, CAROL, Health Education
B.S., University of California, Davis; M.P.H., University of California, Berkeley

BAEDEKER, ROB
B.A., Stanford University; M.A., University of Pennsylvania

BAGBY, CHARLOTTE, Library and Learning Resources
B.A., University of California, Santa Barbara; MLIS, University of California, Berkeley

BALDOCCHI, MARTHA
M.A., Universita degli Studi di Bologna, Italy

BARAFF, BARBARA E., Language Center
B.A., M.A., Ph.D., University of California, Berkeley

BARGA, ALBERT, Architecture
B.A., California Polytechnic State University, San Luis Obispo

BARDIN, TSING
B.S., Imperial College of Science and Technology, London University; Ph.D., Columbia University

BARENS, NICOLE, English as a Second Language
B.A., University of California, Santa Cruz; M.A., San Francisco State University
BARNES, WILLIAM A, Social Sciences
PhD, political science, University of Michigan; J.D., Boalt Hall School of Law, University of California Berkeley

BARNHART, LOWELL
B.A., San Jose State University

BARRA-SALAS, ADRIANA, English as a Second Language
B.A., Otterbein College, Westerville, OH; M.A., Ohio State University, Columbus

BARRATT, CHARLES, Business
B.S., Stonehill College; M.A., San Francisco State University

BARTHOLOMEW, MURIEL I., Foreign Language
B.A., Barnard College; M.A., San Francisco State University

BARRESI, PATRICK, Health Education
B.A., University of Akron; M.P.H., University of South Carolina, Columbia

BARTON, GARY J.
A.A., City College of San Francisco; B.A., San Francisco State University

BASRA, RAVINDER, Graphic Communications
M.A., University of Central England, Birmingham, United Kingdom

BAUTISTA, REINA, Foreign Language
B.A., Maryknoll College, Philippines; M.A., St. Joseph College, Connecticut; Ed.D., University of San Francisco

BEALES, MARCIA, Graphic Communications
M.F.A., University of California, Berkeley

BEAVERS, ANNA, Business
B.A., California State University, San Bernardino; M.B.A., Golden Gate University

BEGG, CONNIE
A.A., The Fashion Institute of Design and Merchandising; A.S., City College of San Francisco; B.A., San Francisco State University

BEGINIA, DAN, Behavioral Sciences
B.A., M.A., San Francisco State University

BEIGHLEY, SHANNON, Culinary Arts and Hospitality Studies
A.A., Cuesta College

BELL, ELISE
B.A., University of California, Davis

BELL, ROSALYN
A.S., City College of San Francisco

BEMIS, JEANETTE, Consumer Education
B.S., Eastern Washington University; M.A., San Francisco State University

BENDER, BEVERLEY, Older Adults
A.A., West Los Angeles City College; B.A., University of California, Santa Cruz; M.A., San Francisco State University

BENHAM, URSULA, Foreign Language
B.A., M.A., San Francisco State University

BENJAMIN, JOAN
B.S., Boston University, Massachusetts

BENNICH, AGATHE
B.F.A., M.F.A., San Francisco Art Institute

BENSHOOF-HOLLER, MARGARET E., English as a Second Language
B.A., M.A., University of Colorado

BENVENUTTO, LILLY, Fashion
A.A., San Francisco School of Fashion Design

BERGER, JACQUELINE
B.A., Goddard College; M.F.A., Mills College

BERGMAN, JULIA ELLEN, Social Science
B.A., San Francisco State University; M.L.S., Western Michigan University

BERMAN, MARSHALL P., Photography
B.S., University of Southern California

BERNSTEIN, HARRY, Music
B.A., UC Los Angeles; M.A., University of Chicago; D.M.A., Stanford University

BERSTON, HYMAN MAXWELL
A.A., City College of San Francisco; B.S., University of California, Berkeley; M.B.A., San Francisco State University; Ph.D., Pacific Western University

BEYER, KARYN, Broadcast Electronic Media Arts
B.A., University of California, San Diego; M.A., San Francisco State University

BIS SINGER, STEVE
B.A., Colorado College; M.F.A., Mills College

BLANCHARD, ROSALYN
A.S., City College of San Francisco

BLAU, LAURENCE A., Business
B.A., University of California, Santa Barbara; J.D., University of San Francisco; LL.M. (tax), University of Florida College of Law

BLEA, ANTHONY, Music
B.A., Manhattan School of Music; M.A., SF Conservatory of Music

BLOCK, ANGELA, Behavioral Sciences
B.S., University of Santa Clara; M.A., California State University; Hayward

BLUNDELL, SOLON F. (FRED), Mathematics
S.B., Massachusetts Institute of Technology; M.S., University of Alabama, Huntsville; Ed.M., Holy names University; Ph.D., Boston University

BOGOMOLNY, ABBY LYNN
B.A., Brooklyn College; M.A., San Francisco State University

BOND, JILL, English as a Second Language
B.A., University of Wisconsin-Madison; M.A., University of Maryland

BOOK, CARL E., Architecture
B.A., Sonoma State University; M.Arch, University of California, Berkeley

BORNSTEIN, SHELDON
A.A., Santa Rosa Junior College; B.A., San Francisco State College

BOSTROM, DENISE, Cinema
B.A., Bennington College; M.F.A., New College of San Francisco

BOYLE, KAREN
B.S.N., San Francisco State University

BOZINA, ROBERT P., Music
B.A., University of Santa Clara; M.A., San Francisco State University

BRADFORD, DAVID
A.A., College of Alameda; A.B. University of California, Berkeley; M.S., University of Wisconsin, Madison; M.S., University of California, Davis

BRADY, JOYCE
M.S., Community Health Education Hunter College, New York City, N.Y.

BRANAGAN, LAURA, Biological Sciences
B.S., Ramapo College; M.S., Rutgers University

BREDA, CARMEN, Consumer Education
B.A., San Francisco State University

BRITTON, RUTH
B.A., Douglass College of Rutgers University; M.A., San Francisco State University

BRODERICK, DIANE, Behavioral Sciences
B.S., Marymount University, M.S. University of Southern California, Ph.D., University of Southern California

BROTHERS, JO ELLEN
B.S., University of Missouri, Columbia; M.P.H., San Francisco State University

BROWN, COURTNEY
B.S., University of Pennsylvania; M.S., Stevens Institute of Technology; Certificate Project Management, University of California, Berkeley Extension

BROWN, DAVID, Cinema
B.A., Claremont McKenna College; M.A., San Francisco State University
BROWN, GEOFF, Disabled Students
Programs and Services
B.S., State University of New York College at
Buffalo; M.S., San Francisco State University

BROWN, KENNETH D, English as a Second
Language
B.A., University of California, Santa Cruz;
M.A., San Francisco State University

BROWN, MARY J.
A.A., San Diego Mesa College

BROWNSEY, MAUREEN, Lesbian, Gay,
Bisexual, and Transgender Studies
B.A., University of California, Davis; M.A.,
M.F.A., San Francisco State University

BRUBAKER, DEBBIE, Cinema
B.A., San Francisco State University

BRUHN, JAMES, Health Care Technology
A.A., Nursing; A.A., Biology, Chabot

BRUNER, EDDA S., Foreign Language
Ph.D., University of California, Berkeley

BRUVRY, PATRICIA, Fashion
B.A., San Francisco State University; M.F.A.,
John F Kennedy University

BRYJA, CLAIA O.
B.A., Reed College; Ph.D., University of
Minnesota

BURICK, KATHE
B.A., University of California, Santa Barbara;
M.A., San Francisco State University

BURNICK, MERLE, English as a Second
Language
B.A., University of California, Berkeley; M.A.,
Jersey City State University, New Jersey

BYK, LYNN R., Interdisciplinary Studies
B.A., M.S., City University of New York;
Ph.D., New York University

BYKLE, TRON J.
B.F.A., M.F.A., San Francisco Art Institute

BYNUM, TORDANCE LAMAR,
Administration of Justice and Fire Science
A.A., B.S., Tennessee State University; J.D.,
Lincoln Law School, San Jose California

BROWN, G. D., Engineering and Technology
B.S., M.S., Aachen University of Technology,
Germany; M.B.A., University of Hagen,
Germany

BROWN, KENNETH D, English as a Second
Language
B.A., University of California, Santa Cruz;
M.A., San Francisco State University

BROWN, MARY J.
A.A., San Diego Mesa College

BROWNSEY, MAUREEN, Lesbian, Gay,
Bisexual, and Transgender Studies
B.A., University of California, Davis; M.A.,
M.F.A., San Francisco State University

BRUBAKER, DEBBIE, Cinema
B.A., San Francisco State University

BRUHN, JAMES, Health Care Technology
A.A., Nursing; A.A., Biology, Chabot

BRUNER, EDDA S., Foreign Language
Ph.D., University of California, Berkeley

BRUVRY, PATRICIA, Fashion
B.A., San Francisco State University; M.F.A.,
John F Kennedy University

BRYJA, CLAIA O.
B.A., Reed College; Ph.D., University of
Minnesota

BURICK, KATHE
B.A., University of California, Santa Barbara;
M.A., San Francisco State University

BURNICK, MERLE, English as a Second
Language
B.A., University of California, Berkeley; M.A.,
Jersey City State University, New Jersey

BYK, LYNN R., Interdisciplinary Studies
B.A., M.S., City University of New York;
Ph.D., New York University

BYKLE, TRON J.
B.F.A., M.F.A., San Francisco Art Institute

BYNUM, TORDANCE LAMAR,
Administration of Justice and Fire Science
A.A., B.S., Tennessee State University; J.D.,
Lincoln Law School, San Jose California

CALASA, AUGUSTINE
A.S., Contra Costa College; Journeyman
Welder

CALLOWAY, JOHN, Music
B.A., City University of New York; M.A. San
Francisco State University; Ed.D., University
of San Francisco

CALVO, JUAN, Foreign Language
B.A., M.A., San Francisco State University

CAMARGO, YELENA, Foreign Language
M.A., Moscow State University, Moscow,
Russia

CANNON, JOE, Biological Sciences
B.S., M.S., San Diego State University

CAPARAS, MARIVIC
B.S., University of the Philippines,
Philippines; M.A., University of San Francisco

CARLSON, JOHN, Cinema
B.A., University of Wisconsin, Milwaukee;
M.A., San Francisco State University

CARPENTER, JANET, Art
B.A., Wellesley College, Wellesley; M.A,
University of Kansas, Lawrence; Ph.D.,
University of Kansas, Lawrence

CARPENTER, WILLARD, Social Sciences
B.S., University of Michigan; M.A., California
State University, Los Angeles; Ph.D.,
Claremont Graduate School; J.D., Goldern
Gate University

CARTER, JAMES
Journeyman Glazer

CASPER, HARRIS, English as a Second
Language
B.A., Temple University; M.A., San Francisco
State University

CASTON, BRYAN, Business
B.S., Louisiana State University-Baton Rouge;
M.B.A., San Francisco State University

CASTRO-ROJAS, CARMEN, Health
Education
B.A., Colorado College, Colorado Springs;
M.A., San Francisco State University

CAYANAUGH, JOHN, Health Care
Technology
A.A., Saint Louis University; B.A., M.S.,
Bellevue University; EMT-Paramedic

CECIL, MALCOLM, Broadcast Electronic
Media Arts
M.A., McGill University, Montreal Canada;
Ph.D., Concordia University, Montreal
Canada

CELIK, CAN, Engineering and Technology
B.S., M.S., Aachen University of Technology,
Germany; M.B.A., University of Hagen,
Germany

CHACON, CINTHIA, Foreign Language
B.A., M.A., San Francisco State University

CHAM, JAMES F, English as a Second
Language
B.A., M.A.Ed., Concordia Teachers College;
M.Div.Colloquy, Concordia Seminary; Ed.D.,
University of San Francisco

CHAMPAGNE, LEO J.
A.A., City College of San Francisco

CHAN, ANDREW, English as a Second
Language
B.A., University of California, Berkeley; M.A.,
San Francisco State University

CHAN, DANIEL
A.A., City College of San Francisco; B.A.,
University of California, Berkeley; M.A.,
California State University, San Francisco

CHAN, FRANCES, Consumer Education
B.S., California Polytechnic State University

CHAN, GILBERT
A.A., City College of San Francisco; Certified
Television Serviceman

CHAN, HON YUEN
B.A., M.A., San Francisco State University

CHANG, DOROTHY, Business
Ph.D., University of California, Berkeley

CHANG, JOANNE
J.D., New York University School of Law

CHANG, LARRY G.
B.S.E., Princeton University; M.Arch, Yale
University

CHAPMAN, CAROLE, Library Information
Technology
B.A., University of California, Sta Barbara;
M.S., San Jose State University

CHARLTON, KATHERLEEN, Health Care
Technology
B.S., Nursing, California State University, San
Francisco

CHATTERJEE, NEELA, English as a Second
Language
B.A., UC Berkeley; M.A., San Jose State
University

CHAVOSHIAN, ALI-REZA,
Interdisciplinary Studies
B.A., College of Translation, Tehran, Iran;
M.A., Lynchburg College; M.A. & Ph.D., The
Wright Institute, Berkeley, CA

C
CHENG, CHIH-YIH, Foreign Language
B.A., Fu-Jen Catholic University; M.A., San Francisco State University

CHIN, EDDIE Y., English as a Second Language
B.A., San Francisco State University; M.A., University of San Francisco; J.D., University of California

CHING, GARY, Architecture
B.Arch, California College of Arts and Crafts

CHINN, GARRETT, Older Adults
B.A., San Francisco State University

CHOWN, MIRIAM
B.A., New York University, NY; M.A., University of California, Berkeley

CHOI, HERBERT
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

CHOU, KEITH
A.A., City College of San Francisco; B.P.A., Administration of Justice and Fire Science

CHRISTOPHER, Graphic Communications
B.A., University of California, Berkeley

CHOW, LORIS, Behavioral Sciences
A.A., San Francisco State University; M.A., University of San Francisco

CLARE, JAMES, English as a Second Language
B.A., San Francisco State University; M.A., University of San Francisco

CLARKE, CHRISTOPHER, Graphic Communications
B.A., Ohio Wesleyan University; M.A., Academy of Art College

CLAYTON, WILLIAM F.
B.S., State University of New York, Albany; M.H.R.O.D., University of San Francisco

COATES, RAMONA, Behavioral Sciences
A.A. New Mexico Military Institute, B.A., University of California, at Irvine, M.A., California State University, at Fullerton, Ph.D. Sociology, Wayne State University

COFFEY, JERICA, Child Development & Family Studies
A.A., City College of San Francisco; B.A., San Francisco State University; M.A., University of San Francisco

COGKILL, CHARLES, English as a Second Language
B.A., M.A., San Francisco State University

COLES, LYNN, Older Adults
B.A., California State University, Los Angeles; M.A., San Francisco State University

COLLINS, BRUCE, Transitional Studies
B.A., San Francisco State University

CONFFIN, GERALD
B.S., University of California, Berkeley; M.S., San Francisco State University; Ph.D., University of California, Berkeley

COMACCHIO, ELISABETTA MONIQUE, Graphic Communications
B.A., University of Oregon, Eugene, Oregon; M.A., California State University, San Francisco, California

CONAHAN, BARBARA J.
A.A., State University of New York, Upstate; B.S., San Francisco State University; M.S., University of California, San Francisco

CONAWAY, ELLEN M.
B.A., M.A., San Francisco State University

CONDEGIO, JOSEPHINE
A.A., City College of San Francisco; B.F.A., California College of Arts and Crafts; M.F.A., San Francisco Art Institute

CONNORS, JAMES, Department Chair, Administration of Justice and Fire Science
A.A., City College of San Francisco; B.P.A., University of San Francisco

CONTRERAS, ANTHONY R., Social Sciences
B.A., San Francisco State; M.A., Stanford University

COOK, KEVIN
B.A., Williams College; M.A., University of California, Berkeley

CORNELL, JEANNE
B.S., University of California, Berkeley

CURRID, EVAN, Architecture
B.S., Virginia Polytechnic State University; M.S. San Jose State University

CORSINI, DEBORAH, Fashion
B.F.A., California College of Arts; M.A., San Francisco State University

COSTARIDES, HARILOS V.
B.A., Emory University; M.A., Portland State University

COUSINEAU, KATHRYN
B.A., Stanford University; B.F.A., M.F.A., San Francisco Art Institute; M.A., Dominican University

COSIO, MIGUEL JR.
Supervisor of Custodial Services

COSTELLO, PATRICIA, English as a Second Language
B.A., University of Southern California; M.A., San Francisco State University

COULTER, DALE
B.A., M.A., San Francisco State University

COVARRUBIAS, MANUEL, Engineering and Technology
A.S., City College of San Francisco; B.S.E.E., San Jose State University; M.S.E.E., California State University, Northridge

COX, DAVID, Graphic Communications
B.A., Deakin University, Australia; M.A., RMIT University Melbourne, Australia

CRIST, LILLIAN, Engineering and Technology
B.A., Marshall University, Huntington, WV

CUellar, JOSE B., Latin American and Latino/a Studies
A.A., Golden West College, Huntington Beach, CA; B.A. Cal State University, Long Beach; M.A. & Ph.D., UC Los Angeles

CULP, DARLENE L.
A.A., College of Marin; B.A., San Francisco State University; M.F.A., University of California, Irvine

CURR, DIANA, Child Development & Family Studies
B.A., University of Iowa

D

D'ANGELO, JACK E.
B.S., University of San Francisco; M.A., San Francisco State University

D'ARCANGELIS, GWEN
B.A., University of Pennsylvania; M.A., Ph.D., University of California, Los Angeles
DA SILVA, JACK
B.A., San Jose State University; M.F.A., Indiana University

DADDY, KWAKU S., Music
B.A., M.B.A., San Francisco State University

DAJANI, LINA, English as a Second Language
B.A., Birzeit University, West Bank; M.A.T., University of Illinois, Champaign, Urbana

DARBY, SAM, Business
Bachelor of Arts, Stanford University; Master of Business Administration, University of California, Berkeley

DARCK, JEFFREY, Mathematics
B.S., M.S., California State University, Hayward

DAW, DEIRDRE
B.F.A., Cleveland Institute of Art; M.F.A., California College of Arts and Crafts

DAWE, A. TIMOTHY, Physics
B.S., M.S., San Francisco State University

DAY, TERRY, Behavioral Sciences/Psychology
B.S. Howard University, Ph.D., The Wright Institute

DE PIERRIS, MARTA, Foreign Language
M.A., Ph.D., University of California, Berkeley

DE VITO, GENNARO
B.S., Teacher’s College of Connecticut; M.A., Boston University, Massachusetts

DEAR, JERRY, Library Information Technology
A.A., City College of San Francisco; B.A., San Francisco State University; MFA University of San Francisco; MLIS San Jose State University

DECKER, THOMAS, Art
A.B., University of California, Berkeley; M.F.A., San Jose State University

DEGANI, NADEREH, Photography
B.F.A., M.F.A., Academy of Art College

DEGIROLAMO, GERALD, Administration of Justice and Fire Science
A.A., City College of San Francisco; B.S., M.A., San Francisco State University

DEL GRANDE, DAVID, Automotive/ Motorcycles/Construction & Building Maintenance
Certificate, Skyline College; Journeyman Auto Mechanic

DELACORTE, ERIKA, English as a Second Language
B.A., Bryn Mawr College; M.S.W., Fortham University; M.A., San Francisco State University

DELL’AGOSTINO, DAVID A, Social Sciences
B.A., California State University, Chico; M.A., University of California, Santa Barbara; M.A., San Francisco State University, San Francisco

DENNEHY, ANN, English as a Second Language
B.A., Connecticut College, Connecticut; M.A., San Francisco State University

DENNIS, JOHN A. JR.
B.A., University of California, Santa Barbara; M.A., Ph.D., Stanford University

DIAMOND, JOSEPH N., English as a Second Language
B.F.A., Parsons School of Design, New York; M.A., USIU, San Diego

DIGIROLAMO, LISA
M.A., Ph. D, University of California, Santa Cruz

DIGGS, DAYO, Health Education
B.S., California State University, Hayward; M.S., California State University East Bay

DILWORTH, HELEN J., Music
B.A., M.A., San Francisco State University; A.M., Stanford University; Ed.D., University of Southern California

DIMANLIG, BARBARA, Health Care Technology
A.S., City College of San Francisco; B.S., University of Cincinnati

DINKINS, SHARI HEATHER
B.A., San Jose State University; M.A., San Francisco State University

DOBBS, MARK, Biological Sciences
B.A., M.A., USC Fullerton

DOLLAR, LISA ALFARO
B.A., John F. Kennedy University; M.A., University of San Francisco

DOMINGUEZ, MARIA, Child Development & Family Studies
A.A., City College of San Francisco; B.A., Patten University; M.A., San Francisco State University

DREWES, STEPHEN
M.A., University of California, Berkeley; M.F.A., Brandeis University

DU JEAN, Foreign Language
B.A., Nankai University; M.A., San Francisco State University

DUBOIS, MARCIA, English as a Second Language
B.A., M.A., University of Wisconsin, Madison

DUHL, FRANK, Child Development & Family Studies
B.A., Oberlin College, Ohio

DULMAN, MARC
B.A., M.A., San Francisco State University; M.Div., Graduate Theology Union Berkeley

DUMONT, PAUL
J.D., Golden Gate University

DUPRE, TIMOTHY
B.A., M.A., San Francisco State University; M.Div., Graduate Theology Union Berkeley

DVORSON, BETTY, Speech Communication
B.A., University of California, Berkeley; M.A., San Francisco State University

E

EDMONDSON, WILBUR, English as a Second Language
B.A., M.A., San Francisco State University

EDWARDS, SAM, Student Health Services
A.A., Community College of San Francisco; B.A., San Francisco State University; M.S.W., University of California, Berkeley

EGLANDER, SUE
Ph.D., University of California, Los Angeles

ELEMEN, JOZEE, Engineering and Technology
A.S., Santa Rosa JC; Civil Engineering & Surveying Technology; B.S., San Francisco State University

ELZIE, PAMELA, Health Education
B.S., M.A., University of San Francisco

ENCISO, FRANZ, Music
B.A., California State University Los Angeles; M.A., University of California, Berkeley

ENG, GREG, Culinary Arts and Hospitality Studies
B.S., San Francisco State University

EPPLER, DOROTHY, Engineering and Technology
B.A., University of California, Berkeley; M.S., University of California, Davis

ERGUN, MARYLOU, English as a Second Language
B.A., University of San Francisco; M.A., San Francisco State University

ERICSON, EARL W.
A.A., City College of San Francisco; B.A., San Francisco State University; M.B.A., Golden Gate University
ESCALANTE, MARTIN, Automotive/Motorcycles/Construction & Building Maintenance
Director, Custodial Services, San Francisco Unified School District

ESHERICK, LISA
B.A., M.F.A., San Francisco State University

ESPINOSA, MARIA
B.S., Columbia University; M.A., San Francisco State University

EVANS, BRENDA, Student Health Services
R.N., M.S.N., S.N.P., University of San Francisco

EYESTONE, DONNA, Broadcast Electronic Media Arts
B.A., Clark University, Worcester, MA; M.F.A., Mills College, Oakland, CA; M.F.A., Rensselaer Polytechnic Institute, Troy, NY

F

FAHEY, ADAM, Mathematics
B.S., Santa Clara University; M.A., San Francisco State University

FANG, LYNN, English as a Second Language
B.S., Marycrest College, Davenport, IA

FAZACKERLEY, JAMES M., Health Care Technology
B.A., University of California, Berkeley

FEIN, JUDITH T.
B.S., Brooklyn College; M.A., Ph.D., University of Iowa

FELLINI-TISHLER, DEBORAH
B.A., University of California, Berkeley; M.A., C.Phil., University of California, Los Angeles

FENNER, RICHARD, Music
B.A., City University of New York; M.F.A., Brandeis University

FINE, BRANDON, English as a Second Language
B.A., University of Massachusetts, Amherst; M.A., San Francisco State University

FINKElSTEIN, MALAIKA, Transitional Studies
B.A., University of California, Santa Cruz; M.A., San Francisco State University

FIRESTONE, ALAN, Art
B.A., M.A., M.F.A., University of California, Santa Cruz

FISHER, ANA, Child Development & Family Studies
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

FITcH, KERI
A.A., Diablo Valley College; B.A., M.A., John F Kennedy University

FITcH, ROBERT, Disabled Students Programs and Services
B.A., University of the Pacific, Stockton, CA; M.R.A., University of San Francisco

FITZGERALD, CAROLE, Disabled Students Programs and Services
B.S., Black Hills State University, Spearfish, SD

FLEncING, TODD, Music
B.A., San Francisco State University

FLOYD, GARY
B.S., Ohio State University; M.S., University of San Francisco

FLORES, ADElIZA
B.S., University of California, Davis; M.S., San Francisco State University

FONG, ADRIENNE, Child Development & Family Studies
B.A., University of Hawaii; M.A., San Francisco State University

FONG, BRYANT, Health Education
B.A., University of California, Berkeley

FONG, WENDY, Graphic Communications
B.A., School of the Art Institute, Chicago; M.A., San Francisco State University

FRAHM, JANENE, Speech Communication
A.A., Ferris State University; B.A., M.A., Michigan State University

FREDERICKS, JAMES, Mathematics
B.S., M.S., State University of New York at Stony Brook

FRERICHs, KARRIANN, Fashion
B.S., University of Nebraska at Omaha; P.D., Fashion Institute of Design and Merchandising, San Francisco

FRIEDMAN, FREDERICK
B.S., City University of New York, NY; M.B.A., Golden Gate University

FUAPoPO, SEKIO, Automotive/Motorcycles/Construction & Building Maintenance
B.F.A., San Francisco Arts Institute; M.A., Sacramento State University

FUNG, ALLAN
B.A., M.A., San Francisco State University

FURINO, FRANCIA, Health Care Technology
M.D., University of Santa Tomas, Manila

FUSHIMI, RANDA, Architecture
B.A., M.Arch., University of California, Berkeley

G

GAGLIARDI, FRANK, Automotive/Motorcycles/Construction & Building Maintenance
B.A., M.A., San Francisco State University

GALBRAITH, CARRIE, Graphic Communications
B.F.A., University of the Arts Philadelphia, PA; M.F.A., Academy of Art College, San Francisco, CA

GAMBINI, LAURA, Foreign Language
A.A., City College of San Francisco; B.A., M.A., San Francisco State University; Ph.D., University of California, Berkeley

GARCIA, ANA
B.A., University of California, Berkeley; M.A., San Francisco State University

GARCIA, LORENZO, Transitional Studies
B.A., University of Alaska, Fairbanks; B.A., M.A., San Francisco State University

GARDINER, JEFFREY
B.A., University of Connecticut; M.A., Ph.D., University of Iowa

GARY, MARCus, Architecture
B.A., University of California, Berkeley; M.S., Stanford University

GEE, BARON
B.A., University of California, Berkeley

GEIS, BAYARD
B.A., Kent State; M.S., Holy Names

GEORGE, KATHLEEN, Older Adults
B.S., State University of New York, Cortland

GEORGIOU, STEve T.
M.A., SF State University; M.A. & Ph.D., Graduate Theological Union, Berkeley

GERASIMOVA, GALINA, Disabled Students Programs and Services
A.S., City College of San Francisco

GEYER, ANNA, Cinema
B.A., University of California, San Diego; M.F.A., Cal Arts

GIAMBATTISTA, LOUIE, Computer Science
A.A., City College of San Francisco; B.A., University of California, Berkeley; M.B.A., Southern Methodist University

GILEWSKA, BOZENA, English as a Second Language
M.A., Poznan University, Poland; M.A., Mills College

Adjunct Faculty 463
GILLESPIE, ELGY, English as a Second Language
B.A., M.A., Trinity College, Dublin; B.A., Maynooth College; M.A., University of Ireland

GINSBERG, ELAINE, Art
M.A., M.F.A., San Jose State University

GIVES-TOLSON, CATHRYN, Consumer Education
B.A., M.S., San Francisco State University

GLASS, FRED
M.A. (2), San Francisco State University

GLESSNER, JANET MICHIKO-TOYAMA, Older Adults

GLICK, PAUL, Foreign Language
B.A., University of the Pacific; M.A., New York University; DDS., University of California, San Francisco

GNASS, NANCY, Child Development & Family Studies
B.A., California Polytechnic State University, San Luis Obispo

GODINEZ, MARCO A.
A.A., Los Medanos College; B.A., California State University, Hayward; M.A., John F. Kennedy University

GOEDERT, JUDITH, Biological Sciences
B.A., Wittenberg University, Ohio; M.A., University of Nevada, Reno

GOLDBERG, ALAN, Institute for International Students
B.A., University of Hawaii, Honolulu; M.A., San Francisco State University

GOLDBERG, JANET
B.A., University of Pittsburgh; M.F.A., Mills College

GONZALEZ, MICHAEL, Philippine Studies
B.A., University of the Philippines; M.A., University of Sydney, Australia

GOODE, RUTH
M.A., Macquarie University, Australia

GOODMAN, JUDY, Disabled Students Programs and Services
B.F.A., University of Wisconsin; M.A., Emerson College

GORDON, RICHARD, Photography
B.A., University of Chicago

GORDON, SUSAN E., English as a Second Language
B.A., University of California, Santa Cruz; M.A., San Francisco State University

GORMLEY, JIM
B.A., M.A., San Francisco State University

GOURDREAU, BETH, Health Care Technology
A.S., City College of San Francisco; EMT-Paramedic

GRAB, VERA
B.S., San Jose State University; A.C.C.E., American Society of Psychoprophylaxis in Obstetrics

GRAHAM, THOMAS, Journalism
B.A., San Jose State University

GRANOFF, SHEILA, English as a Second Language
B.A., University of California, Santa Cruz; M.A. (2), San Francisco State University

GRAUBERGER, MARY E.
B.A., University of Kansas, Lawrence; B.A., San Francisco State University

GREEN, MAGGIE
A.A., Louis and Salenger Fashion School Designer, San Francisco

GREEN, MELISSA
B.A., University of New Orleans; M.A., Mills College

GREENE, TERRANCE, New Student Counseling
A.A., Diablo Valley College; B.A., Morehouse College; M.A., John F. Kennedy University

GREGORY, GREG
M.A., Kazakhstan State University, Kazakhstan

GREGORY, LINDA
President, San Mateo Labor Council Training Coordinator, AFSCME District 57

GREGSON, DIANE, Behavioral Sciences
B.A., University of California, Berkeley, M.A., Antioch University

GRIFIS, STANLEY, Transitional Studies
A.A., Brevard Junior College, Cocoa, FL; B.A., University of West Florida, Pensacola

GRIMES, PAUL, English as a Second Language
B.A., Yale University; M.A., San Francisco State University

GRUENIG, THOMAS, Business
B.S., San Jose State University; J.D., U.C. Berkeley; M.A., U.C. Berkeley; Ph.D., U.C. Berkeley

GUILLEN-NUNEZ, EDITH, Health Education
B.A., Colgate University; M.S., Nova Southeastern University

GUION, DURAND, Fashion
A.A., City College of San Francisco; B.A., San Francisco State University

GUIUAN, ANTONIO
B.A., M.A., San Francisco State University

GUO, SUIJUAN, English as a Second Language
B.A., Peking University, China; M.A., The Chinese University of Hongkong, Hongkong

GUTIERREZ, EUSEBIO
B.A., M.A., San Francisco State University; Ed.D., University of San Francisco

GUTIERREZ, WILLIAM SR.
Superintendent, Custodial Services, San Francisco International Airport (Ret.)

H

HABEGGER, VALERIE A., Transitional Studies
B.A., M.A., San Francisco State University

HAGAN, MICHIE
B.A., University of California San Diego; J.D., University of San Francisco

HAGIWARA, NINA, Library and Learning Resources
B.F.A., University of Hawaii, Manoa; M.F.A., San Francisco State University; MLIS, San Jose State University

HALFORD, DANIEL, English as a Second Language
B.A., M.A., Fordham University, NYC

HALL, THOMAS, Diagnostic Medical Imaging
A.A., City College of San Francisco; B.A., University of California, Berkeley; Graduate Degree, University of California, San Francisco

HANSEN, CAROL L.
B.A., San Jose State University; M.A., University of California, Berkeley; Ph.D., Arizona State University

HANSON, KRISTA, Foreign Language
B.A., M.A., Ph.D., University of California, Berkeley

HARB, KAMAL, Health Education
B.S., M.P.H., San Jose State University

HARDIMAN, DAVID, Music
A.A., City College of San Francisco; B.A., Cal State Hayward University; M.A., San Francisco State University
HARDING, JOHN E., Photography  
B.A., Southern Illinois University; M.B.A., San Francisco State University; M.F.A., San Francisco Art Institute

HARMON, HENRY M., Civic Center  
B.A., San Francisco State University; M.A., Occidental College in Los Angeles

HAROZA, MELISSA M.  
B.A., University of Minnesota; M.A., University of San Francisco

HART, RODNEY K.  
B.A., Geogemeany Center/Antioch University

HARVEY, PHILIP, Health Care Technology  
EMT-P, City College of San Francisco

HASTINGS, LEE  
B.A., M.A., University of California, Berkeley

HAWTHORNE, MARK, Administration of Justice/Fire Science Department  
A.A., City College of San Francisco; B.A., M.P.A., Golden Gate University

HEGGWOOD, DELICIA  
B.A., University of California, Davis; M.A., San Francisco State University

HEILWEIL, VICTORIA, Photography  
B.F.A., New York University; M.F.A., California College of Arts and Crafts

HELLERSTEIN, NATHANIEL, Mathematics  
B.A., Princeton University; M.A., Ph.D., University of California, Berkeley

HELMY, ANNA-LISA, English as a Second Language  
B.S., California Polytechnic State University, San Luis Obispo; M.A., American University, Cairo

HENNESSEY LAVERY, SUSANA, Health Education  
M.P.H., University of California, Berkeley

HICKEY, DANIEL  
B.A., San Francisco State University; M.A., University of San Francisco

HIGGINS, KIMBERLY, Culinary Arts and Hospitality Studies  
B.A. University of San Francisco, A.S. City College of San Francisco

HILL, ROGER W.  
B.A., M.A. (2), San Francisco State University

HINCAPIE, MARIELENA  
J.D., Northeastern University

HITZ, KAMILLE, Fashion  
B.F.A., Parsons the New School for Design

HO, MARGARET  
A.A., City College of San Francisco; B.A., University of California, Berkeley; M.A., San Francisco State University

HOELSCHER, SUSANNE H., Foreign Language Erste Staatsexamen at the Westfälische Wilhelms Universität Münster, Germany; M.A., San Francisco State University; Ph.D. University of California, Davis

HOENISCH, CHARLES E., Administration of Justice/Fire Science  
A.A., City College of San Francisco; B.S., University of San Francisco

HOLDER, VICTORIA, English as a Second Language  
B.A., New York University (Washington Square College); M.A., San Francisco State University

HOLLAND, JOHN  
B.A., Humboldt State University; M.A., University of Oregon

HOM, GRACE, Dental Assisting  
M.A., San Francisco State University

HOM, MELVIN, Mathematics  
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

HONG, BO, Automotive/Motorcycles/Construction & Building Maintenance  
A.A., University of San Francisco

HONG, PATRICIA YET, English as a Second Language  
B.A., M.A., San Francisco State University

HONGO, JO-ANNE, Engineering and Technology  
B.S., San Francisco State University; M.S., San Francisco State University

HOPKINS, AISJAH, Older Adults  
B.A., M.F.A., University of Washington

HOROWITZ, MANLY, Library and Learning Resources  
B.A., University of California, Berkeley; MLS, San Jose State University

HOUGH, TONYA, Photography  
B.S., University of Oregon; M.F.A., San Jose State University

HSU, WEI-JANE, English as a Second Language  
B.A., National Taiwan Normal University; M.A., San Francisco State University

HUANG, DARVIN, Engineering and Technology  
B.S., Michigan State University

HUANG, AMILY, Architecture  
B.A., University of California, Berkeley; M.Arch., Columbia University

HUANG, SU-PING  
B.A., University of California, Berkeley; M.A., San Francisco State University

HUDSON, JULIA, Business  
B.A., Ohio State University, Columbus

HUGHES, JEANNE-MARIE  
B.A., M.F.A., Mills College

HUGHES, PATRICIA, English as a Second Language  
B.A., M.A., Marshall University, Huntington, WV

HUGHES, PATRICK  
B.A., M.A., San Francisco State University

HUGHES, PETER, Business  
B.S., Richard Stockton State College; M.B.A., Golden Gate University

HULBERT, MICHAEL J.  
B.A., University of California, Berkeley; M.A., San Francisco State University

HUNTZINGER, ANNE K., English as a Second Language  
B.A., M.A., Oral Roberts University, Tulsa, OK

HURLEY, KATHLEEN M., Diagnostic Medical Imaging  
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

HURWICH, DAVID, Graphic Communications  
B.F.A., Carnegie Mellon University

HWANG, EDWIN S.  
B.Arch., Tamkang University; M.S., Pittsburg State University

I

IMSON, GRACE, Transitional Studies  
A.A., San Jose State University; B.S.C.E., Mathematics; M.A., Saint Louis University

ISENSEE, RIK, Student Health Services  
B.A., University of California, Santa Cruz; M.A., San Francisco State University; M.S.W., University of Hawaii, Manoa

ISHIBASHI, JEAN, Interdisciplinary Studies  
B.A., University of Wisconsin, Madison; M.A., Stanford University; Ph.D., University of California, Berkeley

ISRAEL, KINNERET R., Interdisciplinary Studies  
B.A., UC Santa Cruz; M.A., University of Texas, Austin
J

JACOBSEN, RODGER, Art
B.F.A., M.F.A., San Francisco Art Institute

JAMES, ARLENE J., Transitional Studies
B.A., University of California, Berkeley

JANDALI, AMEENA K., Interdisciplinary Studies
B.A., University of Illinois, Chicago, Illinois; M.A., UC Berkeley

JANKO, JAMES
B.S., University of California, Berkeley; M.A., San Francisco State University

JENSEN, CAROL A., Business
B.A., University of California at Santa Barbara; M.B.A. University of California at Los Angeles

JOHNSON, LINDA M.
B.S., University of San Francisco; M.S.N., University of California, San Francisco; M.S., San Francisco State University

JOHNSON, MICHAEL S., Foreign Language
B.A., Gallaudet University, Washington, D.C.; M.S., Western Maryland College

JOHNSON, ROBERT, Physics
A.A., City College of San Francisco; B.S., M.S., San Francisco State University

JONES, JOHN
B.A., San Francisco State University

JOSEPH, GERALDIN, Dental Assisting
BVE, San Francisco State University

JOY, LINDA, Broadcast Electronic Media Arts
B.A., Journalism, San Francisco State University

JUE, SPENCER
B.A., University of California, Berkeley

JUE, TRACY, English as a Second Language
B.A., University of California, Davis; M.A., San Francisco State University

JUINUS, KATHLEEN, Health Education
B.S., M.S., Golden Gate University; M.S., San Francisco State University

K

KADANI, TERRY T.
Certificate, Charette School of Costume Design and Pattern Making, Los Angeles; Certificate, Milady Dressmaking School, Fresno

KAILATH, PRIYA, English as a Second Language
B.A., Pitzer College, Claremont; M.A., San Francisco State University

KANESHIRO, DAWN, Art
B.A., University of California, Santa Barbara; M.F.A., Mills College

KAPLAN, GREGORY
B.A., University of California, Berkeley; M.A., San Francisco State University

KAPLAN, JUDI, Disabled Students Programs and Services
B.A., University of California, Santa Barbara; M.S., San Francisco State University

KAPLAN, SUSAN
B.A., San Francisco State University

KAPUST, WALTRAUD
B.A., M.A., San Francisco State University; M.A., San Jose State University

KARAPETYAN, LYUDMILA, Mathematics
B.A., M.A., Azerbaijan State Pedagogical Institute

KARAY, DEAN, English as a Second Language
B.A., University of California, Santa Cruz; M.A. (2), San Francisco State University

KASTEN, ANGELIKA, English as a Second Language
B.A., M.A., Justus Liebig University, Giessen, Germany

KAUFMAN, EDWARD, Lesbian, Gay, Bisexual, and Transgender Studies
B.A., University of California, Davis; M.S.W., San Francisco State University

KEELEY, GLORIA
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

KEENAN, KRISTIN, Earth Sciences
B.S., University of California, Davis; M.S., San Francisco State University; Ph.D., University of California, Riverside

KELLY, DEBORAH, Health Care Technology
B.A., University of Washington, Washington DC; M.A., Ohio State University

KELLY, MAX, Graphic Communications
B.F.A., The Art Institute of Chicago; M.F.A., California State University, San Francisco

KENNEDY, SHARON, Health Care Technology
A.S., RN, Laboure College

KENNEDY, THOMAS W., English as a Second Language/ Transitional Studies
B.A., St. John’s College, Santa Fe, NM; M.A., San Francisco State University

KELCH, SANDRA J., Graphic Communication
B.F.A., Cooper Union School of Art; M.F.A., Cranbrook Academy of Art

KILGARFF, MARTIN J., Administration of Justice and Fire Science
B.A., San Francisco State University; M.P.A., Golden Gate University; J.D., Lincoln Law School

KILLIAN, DOROTHY PEREZ, English as a Second Language
B.A., San Diego State University; M.A., San Francisco State University

KIMBALL, CHARLES, Engineering and Technology
A.S., City College of San Francisco

KING, KATHLEEN, English as a Second Language
B.A., M.A., San Francisco State University

KINSBOURNE, SABRINA, Health Care Technology
B.S., RN, Samuel Merritt College

KIPP, ANA, Transitional Studies
A.A., City College of San Francisco; B.A., Teachers College Bolivia; J.D., Oruro Tech University

KISER, STEVE
Dipl., Brooks Institute of Photography; B.A., M.A., San Jose State University

KLAASSEN, JACQUELINE, Foreign Language
B.A., University of Southampton, U.K.; M.A., Ph.D., University of Wisconsin-Madison

KLATT, JOHN
Journeyman Auto Mechanic

KLEIN, RUSSEL
B.S.M.E., California Maritime Academy, Vallejo

KLING, FRED, Art
B.F.A., California College of Arts and Crafts; M.F.A., Mills College

KNOOP, MICHELLE DEYA
B.A., Mills College, Oakland; M.A., San Francisco State University
KO, SHANNON, Mathematics  
B.S., M.A., University of California, Davis  

KOBYASHI, TRACEY  
B.A., San Francisco State University; M.S., Springfield College  

KOBYASHI, VIVIAN, Library Information Technology  
B.A., M.L.S., University of Hawaii  

KOEHLER, FRANK H., Physics  
A.A., City College of San Francisco; B.S., M.S., San Francisco State University  

KOFFMAN, LINDA  
B.A., M.A., San Francisco State University  

KORNBLAU, JACK, Transitional Studies  
B.A., M.A., Rutgers University, New Brunswick, NJ  

KOSAKA, SEIKO, Foreign Language  
M.A., San Francisco State University  

KOSHAL, MARILYN, Mathematics  
B.A., University of California, Berkeley; M.S., Oregon State University  

KRIEGISH, MARILU, Institute for International Students  
B.A., University of San Francisco; M.A., San Francisco State University  

KURPINSKY, ANNEMARIE, Child Development & Family Studies  
B.A., University of San Francisco; M.A., San Francisco State University  

KUWABARA, JAMES S., Earth Sciences  
B.S., University of Hawaii, Manoa; M.S., Ph.D., California Institute of Technology  

KWAN, DAN,  
B.A., M.A., San Francisco State University  

KWOK, HON-CHUNG WILLIAM  
B.A., San Francisco State University; M.A., University of California, Davis  

LAI, CHU-HUI  
B.A., National Taiwan University; M.A., University of California, Santa Cruz  

LAND, KIRKWOOD M.  
B.S., University of California, Davis; M.A., University of California, Riverside; Ph.D., University of California, Los Angeles  

LANDI, ELEANOR  
B.A., Fordham University; M.A., Hunter College; Ed.M., Columbia University  

LANDINI, LOUIS F., Administration of Justice and Fire Science  
J.D., San Francisco Law School  

LANDAU, GREG, Latin American and Latino/a Studies  
B.A., University of California, Berkeley; M.A., Ph.D., University of California, San Diego  

LANDEROS, MONICA FIGUEROA, Latin American and Latino/a Studies  
A.A., Solano Community College; B.A., UC Davis; M.A., UC Santa Barbara  

LANGDON, MICHAEL  
B.A., University of North Carolina, Charlotte; M.A., Portland State University  

LANGLAND, GREG, Engineering and Technology  
B.S. University of Cincinnati, Cincinnati, OH; Ph.D., University of Cincinnati, College of Medicine, Cincinnati, OH  

LANNON, ALBERT V.  
M.A., San Francisco State University  

LARDIE, RAYNE, English as a Second Language  
M.A. (2), San Francisco State University  

LAU, LINDA C.  
B.A., M.P.H., University of California, Berkeley  

LAU, SHARON, Child Development & Family Studies  
B.S., University of California, Davis; M.A., San Francisco State University  

LAW, JOSHUA T., Music  
B.A., Hong Kong Baptist College; L.R.S.M., Royal Schools of Music, London; M.A., California State University, Los Angeles; M.Div., Golden Gate Baptist Theological Seminary  

LAW, JOHN MUIR, Biological Sciences  
B.S., University of California, Berkeley; M.S., University of California, Santa Cruz  

LAW, CALVIN, Engineering and Technology  
B.S., California Polytechnic State University, San Luis Obispo  

LAWSON, DANIEL L., Administration of Justice and Fire Science  
B.A., University of San Francisco; M.P.A., College of Notre Dame; Ph.D., University of San Francisco  

LIEBEAUX, VALERIE A.  
B.A., M.A., University of San Francisco  

LEROY, VIRGINIA  
B.S., Oregon State University, Corvallis  

LAW, DOUGLAS  
B.A., Lewis & Clark College; M.A., University of Michigan; Ph.D., University of California, Santa Barbara; J.D., Northwestern School of Law  

LAW, JOSEPHINE C., Consumer Education  
B.S., San Francisco State University  

LEE, JENNIFER K., Engineering and Technology  
A.S., City College of San Francisco  

LEE, JIN, English as a Second Language  
B.A., National Taiwan University, Taiwan; M.A., Chinese Culture University, Taiwan; M.A., San Francisco State University  

LEE, SOONDUK, Disabled Students Programs and Services  
B.S., Ewha University, Seoul, South Korea; M.S., Golden Gate University  

LEE, SUSIE, English as a Second Language  
A.A., City College of San Francisco; B.A., San Francisco State University  

LEE, TERRY  
B.A., Westminster College: M.S.W., University of Utah  

LEE, WAYNE, English as a Second Language  
B.A., M.A., University of Hawaii, Honolulu  

L'ECEH, MARLA, Broadcast Electronic Media Arts  
B.A., University of California, Davis; M.A., San Francisco State University; M.F.A., New College of California  

LEHANE, THOMAS  
Instructional Training Program, Purdue University, Lafayette, IN; Journeyman Plumber  

LEIVA, JOSE, Theatre Arts  
M.F.A., Stanford University  

LENFETAKI, SOPHIA, Library and Learning Resources  
B.A., San Francisco College for Women; M.S., San Francisco State University  

LEU, TERESA, Consumer Education  
B.A., San Jose State University  

LEVY, CAROL A., Art  
B.F.A., Syracuse University, New York; M.F.A., Art Institute of Chicago  

LEVY, HENRY  
B.A., Swarthmore College, Swarthmore, PA; M.A., San Jose State University  

LEVY, HOPE, Older Adults  
B.A., George Washington University; M.A., San Francisco State University  

LEVY, RAYMOND, Engineering and Technology  
A.S., City College of San Francisco  

LEW, REED, Engineering and Technology  
B.A., Reed College; M.A., University of California, Santa Cruz  

LEWIS, JAMES, Engineering and Technology  
B.A., Reed College; M.A., University of California, Santa Cruz  

KO–Le Adjunct Faculty 467
LEWIS, MARGARET, Child Development & Family Studies  
B.A., State University of New York, Albany, NY

LEWIS, TODD., English as a Second Language  
B.A., University of North Carolina; M.A., TESOL, San Francisco State University

LI, XIN HUA, English as a Second Language  
B.A., Xian Foreign Language Institute, China; M.A., San Francisco State University

LIEBERMAN, CAROLINE, Older Adults  
B.S., Purdue University, Lafayette, IN

LIEHE, CLIFFORD J., Business  
B.S., Purdue University; M.S., Case Western reserve University; J.D., University of San Francisco

LIEN, STEVEN, English as a Second Language  
A.S., City College of San Francisco; B.S., San Francisco State University

LIFLAND, JESSICA, Journalism  
B.A., B.F.A., Cornell University; M.A., Ohio University

LIGHT, KEN, Photography  
B.A., Ohio State University; M.F.A., San Jose State University

LIM, JIMMY L., Biological Sciences  
B.S., University of San Francisco; O.D., University of California School of Optometry, Berkeley

LIM, CAROL, Health Education  
B.A., University of California, Berkeley; B.S., San Francisco State University

LINDEBOOM, ROBERT T., English as a Second Language  
B.A., San Francisco State University

LINDO, NASHORMEH NORMA, Art  
B.A., Pennsylvania State University; M.S. Bank Street College of Education

LIOU, JOYCE, Foreign Language  
B.A., M.A., San Francisco State University

LIU, IDA F.  
B.S., University of California, Berkeley

LIU, JEAN C., Business  
B.S., Chung Yuan College of Science Engineering, Taiwan; M.S., University of Kansas, Lawrence; M.A., San Francisco State University

LLOYD, STEPHEN  
B.A., Cornell University; M.A., Columbia University

LO, LELAND, Aircraft Maintenance Technology  
A.S., City College of San Francisco; F.A.A., College of San Mateo

LOE, HUMPHREY  
B.S., M.Ed., University of Missouri, Columbia

LOH, YING-TSU, Engineering and Technology  
B.S., University of California, San Diego; Ph.D., Purdue University

LOHR, JANET, Art  
B.S., Portland State University, Oregon; M.Ed., University of Oregon, Eugene; M.A., San Francisco State University

LONG, JAMES, English as a Second Language  
B.A., M.A., University of California, Berkeley; M.A., San Francisco State University

LONG, WILLIAM E., Administration of Justice and Fire Science  
B.A., M.A., San Francisco State University

LOPEZ, TRINA, Cinema  
B.F.A., University of Arizona; M.F.A., San Francisco State University

LOPIPERO-LANGMO, PEGGY, Biological Sciences  
M.P.H., University of California, Berkeley

LOVADINO CROCOMO, CARLA, Institute for International Students  
B.A., Unimet University Metodista, Piracicaba; M.A., San Francisco State University

LOVETT, LI MIAO, Continuing Student Counseling  
B.A., Stanford University; M.A., California Institute of Integral Studies

LOWE, RONDA, Health Care Technology  
B.S., St. Louis College of Pharmacy; CA Licensed Pharmacist

LOZANO, ALBERT H., Foreign Language  
A.A., Vallejo Junior College; B.A., M.A., San Francisco State University

LU, QUAN, English as a Second Language  
M.A., Ed.D, University of San Francisco

LUCAS-CLARK, JOYCE, Earth Sciences  
B.A., M.A., University of California, Santa Barbara; Ph.D., Stanford University

LYNCH, VINCENT B.  
B.A., Seattle University; M.A., San Francisco State University

M

MACHIORLATTI, MICHAEL  
B.S., Aquinas College; M.S., University of Oregon

MACK, BEVERLY, Consumer Education  
B.S., San Francisco State University

MACKOWSKY, NANCY, English as a Second Language  
B.A., University of Maryland; B.S., University of California, San Francisco; M.A., San Francisco State University

MAHANEY, RUTH, Social Sciences  
B.A., DePauw University, IN; M.A., Indiana University, Bloomington

MALACHOWSKI, MICHAEL, Biological Sciences  
Ph.D., University of California, Berkeley

MALONE, MICHAEL, Transitional Studies  
B.A., University of Southern California in Humanities

MANN, WENDY, Photography  
B.A., San Jose State University; B.F.A, Academy of Art College

MANUKOVA, SOPHIA, English as a Second Language  
B.A., Teachers’ Training College, Rostov-Don, Russia; M.A., Foreign Languages Institute, Moscow, Russia; Ed.D., Pedagogical Institute, Moscow, Russia

MARCH, THOMAS J.  
B.S., Illinois Institute of Technology, Chicago

MARINAS, MARINA, Mathematics  
M.S., San Jose State University; M.S., University of Bucharest

MARKELL, GEORGE  
B.A., Kent State University, Ohio; J.D., University of California

MARKS, SHIRLEY M.  
B.A., M.A., San Francisco State University

MARLEY, ELSA, Art  
M.F.A., San Francisco Art Institute, San Franciscoc;

MARSHALL, ROBERT A., Business  
B.S., Miami University, Oxford; M.S., University of Wisconsin, Madison

MARTIN, HANNAH, Older Adults  
B.F.A., Michigan State University, East Lansing, MI; M.S., Case Western Reserve University

MARTIN, MELODY, Transitional Studies  
B.A., Shaw University; M.S., Long Island University
MCCABE, DONNA
B.A., Clark University; M.A., Mills College; M.A., Polytechnic Institute

MCCAFFREY, JOHN
B.S., St. Mary's College, Moraga, CA

MCCARTHY, CHARLES, Music B.A., San Francisco State University

MCCAULEY, KERRY, Transitional Studies B.A., San Francisco State University

MCCLENDON, JEANNETTE, New Student Counseling B.S., San Jose State University; M.S., San Diego State University

MCCORMACK, DANIEL JR.
Journeyman Plumber

MCCORMICK, DANIEL
A.S., City College of San Francisco

MCCRAY, IDA, Health Education B.A., M.Ed., San Francisco State University

MCCURN, SHARON CHAPPLE, Transitional Studies A.S., City College of San Francisco; B.A., M.A., San Francisco State University

MCCUSKEY, SARAH J.
M.S., University of California

MCDEVITT, CHARLES DENNIS
B.A., California College of Arts and Crafts; Certificate, Emergency Medical Technician

MCKAY, JUNE R., English as a Second Language B.A., University of Illinois, Urbana-Champaign; M.A., University of Michigan, Ann Arbor; Ph.D., University of California, Berkeley

MCKEEVER, MICHAEL, Social Sciences B.A., Whittier College; M.S., London School of Economics

MCKINNEY, LINDA
B.A., M.S., Columbia University

MCMAHAN, FRANK, Health Care Technology Paramedic Chief Instructor, Department of Public Health

MCMURRAY, ADRIA-ANN, Business B.A., University of California, Berkeley; J.D., New College of California, San Francisco

MCNEAL, MARILYN, Business B.A., English Literature, University of Pittsburgh; M.A., Media Studies, New School University

MCNIE, NANCY, English as a Second Language B.A., Clarke University; M.A., University of Northern Iowa; Ed.D., University of San Francisco

MCNEES, JOHN, Automotive/Motorcycles/Construction & Building Maintenance B.A., Occidental College

MCPETERS, MELISSA ANN, Transitional Studies B.A., University of Oregon; M.A., California State University, Dominguez Hills

MCSweeney, KATHRYN, English as a Second Language B.A., Ohio University; M.A., Southern Illinois University

MEHTA, SONYA
B.A., University of California, Berkeley

MENDEZ-TEODORO, ANALIA
B.A., M.S., San Francisco State University

MENDONSA, GEORGE
M.S.T., University of Florida, Gainesville

MERRITT, TONEY, Cinema B.A., Syracuse University; M.F.A., San Francisco Art Institute

MESTER, TONI, Older Adults B.A., State University of New York, Albany; M.A., University of Michigan, Ann Arbor

METZGAR, JOSEPH V., Older Adults B.A., M.A., Ph.D., University of New Mexico

MICKELSON, LINDA, Child Development & Family Studies A.A., Nassau Community College, New York; B.A., State University of New York, Buffalo, NY; M.A., San Francisco State University

MIDDLETON, DENNIS D., Business B.A., San Francisco State University; M.B.A., Golden Gate University

MILHOAN, GLORIA L., English as a Second Language B.A., University of Oregon; M.A., San Francisco State University

MILLER, DAVID J.
B.B.A., University of Michigan, Ann Arbor

MILLER, ROBERT
B.A., State University of New York, Stonybrook; M.A., Northern Arizona University

MIRANDA, GUADALUPE, Health Care Technology B.S., St. Mary's College; Registered Diagnostic Cardiac Sonographer

MITCHELL, PATRICIA, English as a Second Language A.A., Skyline College; B.A., New College of California; M.A., San Francisco State University

MIZE, NAOMA, New Student Counseling B.A., Washington State University, Pullman; M.A., San Francisco State University

MO, SIGISMUND, Business A.A., City College of San Francisco; B.A., San Francisco State University

MOHITANE, ABBAS, Computer Science M.S., University of San Francisco; Ph.D., Tehran University, Iran

MOORE, MIK, Behavioral Sciences M.A., Geography, University of Cambridge, England; Ph.D Sociology, University of Kent, England)

MONTESANO, PHILIP M., Social Sciences B.A., M.A., University of San Francisco; Ph.D., University of California, Santa Barbara

MORABITO, SALVATORE, Foreign Language A.A., City College of San Francisco; B.A., M.A., San Francisco State University

MORALES, MICHAEL, Social Sciences B.A., New Mexico State University; M.A., San Francisco State University

MOREL, RENÉ C., Foreign Language A.A., City College of San Francisco; B.A., M.A., University of California, Berkeley

MORENO, RENÉE M.
B.A., M.A., San Francisco State University

MORI, AKI
B.A., Tokyo Joshi University; M.A., San Francisco State University

MORI, DENNIS, Business B.S., University of San Francisco; M.A., San Francisco State University
MORLAN, JOSEPH, Continuing Education
S.B., Massachusetts Institute of Technology, Cambridge, MA

MOY, DEBBIE
B.A., M.A., Antioch University

MUELLER, GERALD A., Music
B.A., University of California, Berkeley; M.A., San Francisco State University

MULHOLLAND, PATRICE, English as a Second Language
B.A., M.A., San Francisco State University

MULLER-MOSELEY, CLAIRE, Culinary Arts and Hospitality Studies
M.A., San Francisco State University

MUND, MARVIN
B.A., Columbia University, New York, NY

MU—OZ, JULIAN D.
A.A., City College of San Francisco; B.A., M.Arch., University of California, Berkeley

MURAJDA, TRICIA, Behavioral Science
B.A. Sociology, B.A. Political Science, Marshall University, M.A., Sociology, University of Pittsburgh, M.A., Certification of Women Studies, University of Pittsburgh, A.B.D.
University of Pittsburgh

MURPHY, DEBORAH, English as a Second Language
B.A., State University of New York, Binghamton; M.A., Hunter College; M.A., City University of New York

MURPHY, GERRY
B.A., San Francisco State University; M.S.W., University of California, Berkeley

MURPHY, HARRIET, Health Care Technology
A.S., Napa Valley College; Registered Diagnostic Cardiac Sonographer

MURPHY, KATHLEEN, Dental Assisting
M.S., San Francisco State University

MURRY, ROBERT
Superintendent, Piping and Mechanical Installations

N

NALTU DE VEGA, ANGELITA
B.A., University of California, Berkeley; M.A., California State University, Hayward

NARVID, YOKO U., Foreign Language
B.A., University of Shizuoka; M.A., San Francisco State University

NAVARRO, FRANCOISE J., Foreign Language
M.A., University of California, Berkeley

NELSON, MARYLYN
B.A., Purdue University; M.A., San Francisco State University

NERENBERG, LISA, Health Education
M.S.W., M.P.H., University of Minnesota

NEUBURGER, BRUCE, English as a Second Language
B.A. M.A., San Francisco State University

NEUMAIER, WERNER
B.S., Heal Engineering College, San Francisco

NEUMANN, ROBERT, English as a Second Language
B.F.A., Ohio State University, Columbus; M.A., Sonoma State University; M.B.A., Golden Gate University

NG, ANTHONY, Health Care Technology
B.S., M.S., Massachusetts College of Pharmacy, Boston

NG, JOEL, Physics
A.B., University of California, Berkeley; M.S., University of Southern California

NG, MARINA
B.S., San Jose State University

NG, VERONICA
B.A., Lone Mountain College, San Francisco; M.A., University of San Francisco

NGUYEN, CHAU, English as a Second Language
B.A., University of Saigon, Vietnam

NGUYEN, VANSON, Mathematics
B.S., University of California, Los Angeles; M.A., San Francisco State University

NICHOLSON, JOSEPH W., English as a Second Language
B.A., Holy Cross College, Worcester, Massachusetts; M.A., State University of New York, Cortland, New York

NICHOLSON, SACHIKO, Foreign Language
B.A., State University of New York; M.A., San Francisco State University

NOLL, KAREN L.
B.A., M.A., San Francisco State University

NORMAN, SHEILA, Child Development & Family Studies
A.A., City College of San Francisco; B.A., M.A., New College of California

NOWICKI, PAUL, Architecture
B.A., University of California, Berkeley

NUNLEY, PATRICIA, Child Development & Family Studies
B.S., San Francisco State University; M.A., Mills College Oakland, CA

NZEWI, ESTHER, Behavioral Science
B.A., Chestnut Hill College, Philadelphia, PA; M.A., Montclair State University, New Jersey; M.A., Ph.D., New York University, NY

O

O’NEIL-ANNIS, KELLEY, English as a Second Language
B.A., Slippery Rock University, Pennsylvania; M.A., San Francisco State University

O’SHAUGHNESSY, PATRICK, Business
B.S., University of San Francisco; J.D., San Francisco Law School

OCCENA, BRUCE, Health Education
B.A., University of California, Berkeley; M.P.H., M.B.A., University of Hawaii

OLMSTED, DAN, Cinema
B.A., University of California, Santa Cruz

ORDONA, TRINITY, Lesbian, Gay, Bisexual, and Transgender Studies
B.A., University of California, Berkeley; Ph.D., University of California, Santa Cruz

ORLANDI, FERNANDO, Mathematics
Ph.D., Kent State University

OSADA, LUBA, English as a Second Language
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

OSTERHOFF, SUSAN, Child Development & Family Studies
B.S., University of Michigan, Ann Arbor, MI

OUSDAHL, TRACY, English as a Second Language
B.A., University of Kansas; M.A., San Francisco State University

OWINGS, WILLA, Child Development & Family Studies
B.A., Bard College, New York; M.A., San Francisco State University

OWYANG, MARIAN
B.S., University of California, Davis

P

PAHL, LESLIE, Library and Learning Resources
B.A., M.A., Ph.D., University of California, Berkeley

PALAITE, DAVID G. (VikA), Interdisciplinary Studies
B.A. University of Washington, Seattle; M.A. UC Berkeley
PANG, FRANCIS W., Automotive/Construction & Building Maintenance
A.A., City College of San Francisco

PANG, WILMA, Music
B.A., M.A., San Francisco State University

PAPINI, RITA, New Student Counseling
B.A., San Francisco State University; M.S.W., University of California, Berkeley

PARK, JOHN
B.A., University of Pittsburgh; M.A., Indiana University; M.A., New York University

PARKHURST, MATTHEW, Foreign Language
B.A. cum laude, California State University, Northridge; M.A., California State University, Northridge

PEARCE, RICHARD, Health Care Technology
A.S., City College of San Francisco; B.S., California State University, Long Beach; M.B.A., Golden Gate University

PEARSON, SHARON S., Art
B.F.A., University of Illinois

PEIRCE, KATRINA A., English as a Second Language
B.A., Stanford University; M.A., San Francisco State University

PEIRCE, PAMELA K.
B.A., Butler University

PENNEKAMP, NANCY, Library and Learning Resources
B.A., UC Davis; B.S., Episcopal School for Deacons; M.A., Humboldt State University

PERRY, KATHLEEN, Photography
B.F.A., University of Iowa; M.F.A., California College of Arts and Crafts

PESSAGNO, DIANE
A.A., Canada College

PETERSON, ANDREW J.
B.A., University of Oregon

PETERSON, CHRISTINA
M.A., University of Virginia; Ph.D., City University of New York

PHILHOUR, BYRON J.
A.B., University of California at Berkeley; M.S., Ph.D., California Institute of Technology

PHILLIPS, PEGGIE, Biological Sciences
A.S., College of Marin; B.A., M.A., San Francisco State University

PICHENY, JACOB, English as a Second Language
B.A., M.A., University of Chicago

PIERCE, ALICIA
B.A., M.A., San Francisco State University

PIHL, APRILLE, Older Adults
B.F.A., California College of the Arts; M.A., University of California, Berkeley

PILGRIM, CHARLOTTE
B.A., French University of The South; M.A., French Middlebury College; Ph.D., Columbia University

PINES, ARTHUR, Broadcast Electronic Media Arts
B.A., University of California, Santa Barbara; M.A., University of California, Berkeley

PIONNEER, SUSAN
B.A., San Francisco State University; M.A. in History with a concentration in Latin America

POYNEER, SUSAN
B.A. Colorado Women's College; MLIS, University of Hawaii at Manoa; M.B.A., California State University, Hayward

POLEY, JAMES
B.A., Notre Dame University; M.B.A., University of California, Berkeley

POLK, ANDREA, Student Health Services
B.A., Georgetown University, Washington, DC; M.S., San Francisco State University; Ph.D., Wright Institute

POLT-JONES, BRAD, Graphic Communications
M.F.A., Claremont Graduate University

PON, CLARINA SUE
B.A., University of California, Berkeley, M.Ed., New Mexico Highlands University

PONG, LAWRENCE, Biological Sciences
Ed.D., Fielding Graduate University

PORCELLA, ELIZABETH J., English as a Second Language
B.A., M.A., San Francisco State University

PORRAS, GLADYS, Health Care Technology
M.D. Universidad Federico Villarreal

POTTER, ELIZABETH, Transitional Studies
B.A., San Diego State University

PRADO, MATHILDE A.
B.S., University of Amsterdam, Netherlands

PRICCO, JAMES
B.Arch, B.S.Mech Eng, California Polytechnic State University, San Luis Obispo

PROCTOR, ELIZABETH, Earth Sciences
B.A., University of California, Los Angeles; M.A., San Francisco State University

PROCTOR, WENDY, Architecture
B.S., Southern Illinois University Carbondale

PUNSALAN, DOUGLAS, Cinema
A.S., City College of San Francisco

PUTNAM, DOUGLAS, Computer Science
B.A., University of California, Berkeley

QUAN, LISA, Child Development & Family Studies
B.S., Oregon State University; M.S., University of Oregon

QUEVEDO, MARIO, Disabled Students Programs and Services
A.A., City College of San Francisco; B.A., M.S., San Francisco State University

RAHMAN, DAVID
B.A., Baker University, Kansas; M.S., Oregon State University

RAHMAN, SUSAN, Child Development & Family Studies
B.A., California State University, Humboldt, Arcata, CA; M.A., California State University, Hayward

RAINS, NEIL G.
B.S. Arch, California Polytechnic University, San Luis Obispo; M.A., University of San Francisco

RAPPAPORT, STANFORD, Language Center
M.A., University of Texas, Austin

RAUENBUSCH, TIMOTHY, Computer Science
B.S., University of Pennsylvania; S.M., Ph.D., Harvard University

REDFERN, MARY, Student Health Services
B.S.N., University of San Francisco; M.S.N., University of California, San Francisco; F.N.P., Sonoma State University, Cotati

REED, ROBERT, Engineering and Technology
B.A., Sonoma State University
REINHARD, GEOFFREY G., English as a Second Language  
B.A., Princeton; M.A., University of Illinois; M.A., San Francisco State University

RENN, MING, Art  
B.F.A., National Art Institute of China; M.F.A., San Francisco Art Institute

RESTIVO, DOUGLAS A., Art  
B.F.A., M.F.A., California College of Arts and Crafts

REVLOCK, THEODORE, Architecture  
B.Arch, Spring Garden College; Grad. Dipl., Architectural Association

REYES, SONIA  
B.A., Far Eastern University, Manila, Philippines; M.P.A., Golden Gate University

RICHARDS, JOHNNETTA, African American Studies  
B.A., Virginia State University; M.A., Ph.D., University of Cincinnati

RICHARDSON, CATHY  
B.A., University of Southern California; M.A., San Francisco State University

RICHARDSON, PHIL  
B.S., Rensselaer Polytechnic Institute; M.D., New York Medical College

RIGGS, JAMES, Speech Communication  
B.A., M.A., San Francisco State University; Ph.D., University of Wisconsin

RILEY, SHEILA, English as a Second Language  
B.A., St. Mary’s College of California; M.A., Lone Mountain College

RINCON, ABBY, Health Education  
B.A., CSU Chico; M.P.H., University of California, Berkeley

RIORDAN, RICHARD F., Health Care Technology  
A.S., City College of San Francisco; B.S., San Jose State University

RITTHENHOUSE, AMANDA, Health Education  
B.A., M.A., University of California, Berkeley Ph.D., University of California, San Francisco

RIVERA, RICARDO, Art  
B.F.A., M.F.A., San Francisco Art Institute

ROBERTS, BARRIE  
B.A., University of California, Berkeley; J.D., Hastings College of Law; M.A., California State University, Sacramento

ROBERTS, JUDITH, Behavioral Science  
B.A., University of California, Berkeley; M.A., San Francisco State University

ROBERTS, PATTI R.  
B.A., Brooklyn College; J.D., Boalt Hall, University of California, Berkeley

ROBINSON, KURT, English as a Second Language  
B.A., University of California, Berkeley; M.A., San Francisco State University

ROBBINS, JAN SIMONE, Older Adults  
B.A., Adelphi University, Garden City, New York; M.A., University of San Francisco

ROBINSON, KAREN, Continuing Student Counseling  
B.S., University of California, Davis; M.S., San Francisco State University

ROCHMIS, JON, Journalism  
B.A., University of California, Berkeley; M.A., University of San Francisco

RODRIGUES, CATARINA, Behavioral Science  
B.A., University of Massachusetts at Amherst, M.A., San Francisco State University

RODRIGUEZ, PABLO, Transitional Studies  
B.A., M.A., San Francisco State University; M.A., University of San Francisco

RODRIGUES, RICHARD, Art  
B.F.A., California College of Arts and Crafts; M.F.A., Mills College

ROMAINE, DIANNE, Older Adults  
B.A., San Francisco Art Institute

ROMERO, MANUEL, Automotive/Motorcycles/Construction & Building Maintenance  
B.A., Universidad del Atlantico; M.A., San Francisco State University

ROSE, MURIELLE, Behavioral Science  
M.A., San Jose State University

ROSENBERG, JERROLD S., Social Sciences  
B.A., University of Rochester; M.A., University of San Francisco

ROSENWASSER, PENNY, Interdisciplinary Studies  
B.A., Denison University, Granville, Ohio; Ph.D., California Institute of Integral Studies, San Francisco, CA

ROTH, ELLIOT, English as a Second Language  
B.A., Columbia University; M.A., Hunter College, C.U.N.Y.

ROTHE, MARIANNE, English as a Second Language  
M.A., University of Mainz, Germany

ROWE, PETER  
B.S., Ph.D., University of Birmingham

ROY, SUSAN L.  
B.S., University of Pennsylvania

RUANE, SUSAN HANLON  
B.A., University of California, Berkeley; M.A., San Francisco State University

RUBENSTEIN, STEVEN  
B.S., Binghamton University; Ph.D., Colorado State University

RUBIN, STEPHEN  
B.A., University of Maryland; M.A., University of Miami

RUBIN, SYLVIA, Fashion  
B.A., SUNY Binghamton University

RUDOLPH, LINDA  
B.A., University of California, Berkeley; M.A., San Francisco State University

RUSH, HELEN, Business  
A.A., City College of San Francisco; B.A., San Francisco State University

RUSSAKOVSKII, YEHERNIY, Mathematics  
B.S., M.Ed., Ph.D., Kharkov State University, Ukraine

RUSTIGAN, HIROMI, Foreign Language  
B.A., Aoyamagakuin University; M.A., San Francisco State University

RYAN, LAWRENCE, Administration of Justice and Fire Science  
A.S., City College of San Francisco; B.A., Golden Gate University

RYAN, THOMAS  
B.A., Hobart College, Geneva, New York

S

SAAVEDRA, MANUEL, Disabled Students Programs and Services  
B.A., University of San Buenaventura, Colombia; M.A., Pontifical Bolivarian University, Colombia

SAENZ, FRANCISCO, Automotive/Motorcycles/Construction & Building Maintenance  
B.A., San Francisco State University

SAKAI, YAJOI  
M.A., Sogetsu School of Tokyo

SAN MIGUEL, MARCELA S., Transitional Studies  
B.A., San Francisco State University; M.A.T., Tufts University, Medford, MA

SANCHEZ, JORGE, Interdisciplinary Studies  
B.A. University of California, Los Angeles, M.A., San Diego State University; Ph.D., College of Michigan
SANDFORD-LYONS, STACEY
B.A., University of the Pacific; M.S., Grambling State University

SANDBORG, FREDERICK
B.A., San Francisco State University; M.A., Stanford University

SARDALLA, GASP AR L., Social Sciences
Ph.B., University of Santo Tomas, Manila; B.S.F.S., University of the Philippines; M.A., University of Hull, U.K.; M.A.(2), University of California, Berkeley

SATO, KEIKO, Foreign Language
B.A., University of Japan, Tokyo; M.A., San Francisco State University

SAUNDERS, ANDREW, Automotive/Motorcycles/Construction & Building Maintenance
B.A., Stirling University, Scotland

SAUNDERS, KATHARINE G., Mathematics
A.B., University of California, Berkeley; M.A., University of California, Los Angeles

SAVORY, JOAN
M.A., University of California, Berkeley; M.A., San Francisco State University

SAVED, JAY
B.A., LL.B., Punjab University, Pakistan; M.A., San Francisco State University

SCHAEFER, IRENE, Business
B.A., San Francisco State University M.A.; San Francisco State University

SCHAEFER, RICHARD G., Biological Sciences
B.S., St. Mary’s College; M.D., University of the Philippines

SCHOTT, STUART, Transitional Studies
B.A., San Francisco State University

SCHROERLUCKE, DAVID, Mathematics
B.A., M.A., University of Louisville

SCHULZ, HENRY W., Behavioral Science
B.A., M.A., University of Detroit; M.A., San Francisco State University

SCHWARTZ, JUDITH, Older Adults
B.A., University of California, Berkeley; M.A., Antioch University

SCHWARTZ, MARVIN L., English as a Second Language
B.B.A., Hofstra University, Hempstead, NY; J.D., Georgetown University, Washington, DC

SENGUPTA, SUSMITA, Biological Sciences/Plant Biology
M.Sc., Ph.D.,University of Calcutta, India

SETTLES, MICHAL, Business
B.A., Morehead State University, Morehead, KY; M.Ed., Howard University, Washington, DC; Ed.D., University of San Francisco

SEVERIN, RIZZO, Automotive/Motorcycles/Construction & Building Maintenance
B.A., University of San Francisco; M.B.A., San Francisco State University; Schools of Law, Juris Doctor, University of San Francisco

SHANAHAN, MEGAN, Health Care Technology
A.A., Napa Valley Community College; B.S., San Francisco State University

SHAHANI, MICHAEL, Music
B.M., University of Nebraska; M.A., University of California, Davis

SHANNON, MIKE, Cinema
B.A., Columbia University; Graduate Film Program, San Francisco State University

SHAW, DEBORAH A., Theatre Arts
B.A., University of San Francisco; M.A., San Francisco State University

SHEA, KEVIN M.
A.A., City College of San Francisco

SHEETZ, NUALA, English as a Second Language
B.A., Connecticut College; M.A., Boston University

SHEFIELD, EUGENE
Journeyman Plumber

SHEIKH, MOAZZAM, Interdisciplinary Studies
B.A., Punjab University, Lahore, Pakistan; B.A., SF State University; MLIS., San Jose State University

SHIN, SUSAN L.
B.A., Brandeis University; M.A., Fairleigh Dickinson University; Ph.D., Harvard University

SHOEMAKER, LEE, Older Adults
B.A., University of California, Berkeley; M.A., San Francisco State University

SHIVARTS, OLGA A., Disabled Students Programs and Services
B.A., M.S., San Francisco State University

SIEGGLITZ, MICHELE, Broadcast Electronic Media Arts
B.S., Syracuse University

SIEPER, JEAN, Interdisciplinary Studies
B.A., University of Pittsburgh; M.A. & Ph. D., Carnegie Mellon University

SILVER, DALE, English as a Second Language
B.A., University of California, Berkeley; M.A., San Francisco State University

SILVERMAN, HERB, Transitional Studies
B.A., San Francisco State University

SILVERSTEIN, LOIS
B.A., Barnard College; M.A., Hunter College; Ph.D., McGill University

SIMON, ROBERT, Automotive/Motorcycles/Construction & Building Maintenance
B.A., University of California, Santa Cruz

SIMPSON, CAROL
B.A., M.A., Ph.D., University of California, Berkeley

SIMPSON-BACZEK, WANDA, Earth Sciences
G.I.A. G.G. Gemological Institute of America; A.A. Merritt College

SMERNES, ANASTASIA
A.A., City College of San Francisco; B.A., University of Athens

SMITH, ARTHUR J.
Journeyman Welder

SMITH, JOSHUA, Health Care Technology
B.A., University of California, Berkeley; EMT-Paramedic

SMITH, LORETTA, Fashion
B.F.A., University of San Francisco

SMITH, NATALIE, Fashion
A.A., Fashion Institute of Design & Merchandising

SMITH, RONDA, Business
B.A., M.A., Sonoma State University

SMITH, TERRIL, Biological Sciences
B.A., M.A., Ph.D., University of Colorado, Boulder; M.P.H., University of California, Berkeley

SOBERANO, SOCORRO, Graphic Communications
B.F.A., University of Illinois, Urbana, Illinois; M.F.A., Rhode Island School of Design

SOLLER, ROBERT
B.A., San Francisco State University; M.F.A., University of California, Los Angeles

SOMSANITH, DAROUNY, Health Education
B.S., San Francisco State University; M.P.H., University of California, Los Angeles

SPANO, GIORGIO, Foreign Language
Lauree, La Sapienza University, Rome
SPEARS, DAVID  
B.A., Stanford University; M.A., University of Chicago

SPRINGOLA, DAVID C.  
Journeyman Auto Mechanic

SPRINGOLA, GILLIAN, Photography  
M.F.A. Vermont College, Norwich University, Vermont

SRI-THARAN, DARREN, Engineering and Technology  
B.S., University of London, Birkbeck College, England

STACONIS, DAVID, Health Care Technology  
B.S., Loma Linda University; RN, Western University of Health Sciences; EMT-Paramedic

STARKE, JANNA, Fashion  
B.A., University of California, Santa Cruz; M.A., San Francisco State University

STARKE, ROBERT L.  
A.A., City College of San Francisco; B.A., San Francisco State University

STASIO, SEAN, Engineering and Technology  
B.A., University of California, Berkeley

STEVENOVA, IRENA, Foreign Language  
B.A., M.A., Sofia University, Bulgaria; M.A., Simon Fraser University, Canada

STEGNER, MARY K.  
M.A., Florida State University, Tallahassee; M.A., Eastern University, Richmond, KY

STEIN, RON  
A.A., City College of San Francisco; B.S., University of California, Berkeley; M.A., San Diego State University

STEWART, LIZ, Learning Assistance  
B.A., M.A., San Francisco State University

STONE, MARLENE L.  
A.A., Santa Monica College; B.S., California State University, Northridge; M.B.A., Golden Gate University

STRID, JERRI, English as a Second Language  
B.A., Fresno State University

STRUNK, CHRISTOPHER  
B.A., Boston College; J.D., Villanova University School of Law

STUART, JOHN B.  
B.S., Oregon State University; M.S., University of Oregon

SUDAK, LINDA, Child Development & Family Studies  
B.A., Miami University, Ohio; M.A., San Francisco State University

SULLIVAN, JANICE, Fashion  
B.A.A., Boston University; M.S., Massachusetts College of Art

SUNG-CHUN, SHIRLEY  
B.A., M.A., San Francisco State University

SUTTLE, PETER, English as a Second Language  
B.A., University of California, Berkeley; M.A., San Francisco State University

SWARTZ, THOMAS, Mathematics  
B.S., United States Naval Academy; M.S., College of Holy Names

SWEARS, CYNTHIA, Health Care Technology  
B.A., Washington State University; Registered Diagnostic Cardiac Sonographer

SWEENY, MEGAN M., Social Sciences  
B.A., Seattle University; M.A., San Francisco State University

SWEETMAN, LAURENCE, Health Care Technology  
EMT-Paramedic, City College of San Francisco

SWENSON, LISE, Cinema  
B.A., M.A., San Francisco State University

SZTUNDEL, KIEL  
M.A., San Francisco State University

T

TACHIE, LAWRENCE W, Engineering and Technology  
A.S., City College of San Francisco; B.S., San Francisco University; M.S., San Jose State University

TADAYONI, PEDRAM, Engineering and Technology  
B.S., Amirkabir University of Technology, Iran

TAI, JULIE MING  
B.A., M.A., University of Michigan, Ann Arbor

TAHIR, MARYANET, Library Information Technology  
B.A., M.A., San Francisco State University; MLIS, University of California, Berkeley

TAHIR, PEGGY  
B.A., M.A., San Francisco State University; MLIS University of California, Berkeley

TAKAMATSU, NOBUKO, Foreign Language  
B.A., Aoyama Gakuin University; M.A., San Francisco State University

TAN, JULIE JIE, Health Care Technology  
B.A., Sichuan Medical College, China; M.A., West China University of Medical Science

TANG, ALICE  
B.A., M.A., San Francisco State University

TANG, GAYLE, Health Education  
B.S.N., University of San Francisco; M.S.N., Sonoma State University

TANG, JOHN  
B.A., M.A., San Francisco State University; M.A., Ph.D., University of Virginia

TANG, MARLENA, Health Care Technology  
M.D., Howard University College of Medicine; B.A., University of California, Santa Cruz

TARVER, JILL, Consumer Education  
B.S., Cal Poly San Luis Obispo; M.S., University of California, Davis

TAYLOR, CALLEN, Transitional Studies  
B.A., Gonzaga University; M.A., University of San Francisco

TAYLOR, GEORGE  
B.A., University of Michigan, Ann Arbor; M.A., Humboldt State University

TAYLOR, MICHAEL  
B.A., California State University, Hayward; M.A., San Francisco State University

TAYLOR, SANDRA  
B.A., University of California, Los Angeles; M.A., State University of Iowa, Ames

TAYLOR, TERRI, New Student Counseling  
B.A., M.S., San Francisco State University

TAYTON, DONALD B.  
A.A., Stockton College; B.S., University of California at Berkeley

TCHIKOVANI, GEORGES  
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

TEAGUE, ALEXANDRA  
B.A., Southwest Missouri State University; M.F.A., University of Florida

TEIXEIRA, FRANCISCO, Foreign Language  
B.A., San Diego State University; M.A., San Jose State University

TENG, SHIREE  
I.L.G.W.U., Teamsters Union; B.A., University of California, Berkeley

TENGE, MARIJKE, English as a Second Language  
B.A., University of Northern Colorado; M.Ed., Holy Names College, Oakland

THOMPSON, GENE E., English as a Second Language  
M.A., San Francisco State University
THORMANN, DAVID G.
B.A., Wayne State University, Detroit, MI; M.A., University of Hawaii, Honolulu

THUENE, VICTOR
J.D., University of San Francisco

TIGHE, JOHN, Health Education
B.A., Indiana University; M.S.W., San Francisco State University

TOM, ERICA, New Student Counseling
B.A., M.S.W., University of California, Berkeley

TOM, JANET, Library and Learning Resources
B.A., University of California, Berkeley; M.A., University of Wisconsin, Madison

TOM, PERRY, New Student Counseling
B.A., San Francisco State College; M.A., San Francisco State University

TOMPKINS, JOHN A.
B.S., University of California, Berkeley; J.D., University of San Francisco Law School

TONG, PHILIP, Business
B.S., California State University at Long Beach; M.S., Oklahoma State University

TONEY, ANITA, Art
B.F.A., Syracuse University, Syracuse, NY; M.A., San Francisco State University

TORIBIO, HELEN
B.S., University of Hawaii; M.P.A., California State University, Hayward; M.A., University of San Francisco

TOOTH, ANDREA
B.A., University of Toronto, Toronto, Canada; M.A., Florida International University, Miami, Florida

TOUZE, SOPHIE, Art
B.F.A., San Francisco Art Institute, California; M.F.A., San Jose State University, California

TOWNSELL, FRANK
B.A., University of Missouri, Kansas, City; M.M., University of British Columbia

TREGOR, JILL, Health Education
B.A., University of Massachusetts, Amherst; M.P.H., San Francisco State University

TRINH, DINH JR.
B.S., University of California, Davis; M.B.A., San Francisco State University

TRINH, DINH X.
L.L.B., L.L.M., University of Saigon; M.B.A., San Francisco State University

TROUNG, NINA M, New Student Counseling
B.S., M.S., San Francisco State University

TSUI, PHILLIP
M.A. (Sociology), Rutgers University, M.S.W. University of Michigan, Psy.D, Southern California University for Professional Studies

TSUI, STEPHEN, Business
B.S., University of San Francisco; M.B.A., San Francisco State University; Certified Systems Professional ICCP

TURNER, HOLMAN, Photography
B.S., Alabama A&M University; B.F.A., Academy of Art College

TURNER, JUDITH, Child Development & Family Studies
B.A., M.A., San Francisco State University

TURNER, SHARON, Health Education
B.A., University of California, Santa Cruz; M.P.H. San Francisco State University

TYAU, GAYLORE C.Y.
A.A., B.S., M.B.A., Armstrong College

UBUNGEN, FLORENTINO M., Transitional Studies
M.A., San Jose State University; B.A., San Francisco State University

UCHIMA-DECENA, AKEMI, Foreign Language
B.A., Western College of Miami University, Oxford, OH; M.A., San Francisco State University

UDELL, SIMON M., Architecture
A.A., Los Angeles City College; B.Arch, M.Arch, University of Southern California

ULLOA, JOHN C., Social Sciences
B.A., San Francisco State University; M.A., San Francisco State University

ULLRICH, LAUREL
B.S., Temple University

ULREY, STEFANIE A.
B.A., George Washington University; M.A., Monterey Institute of International Studies; M.A., University of San Francisco

ULRIKE, SHANNON, Student Health Services
B.A., University of California, Davis; Psy. D., California School of Professional Psychology, San Francisco

UMURHAN, ORKAN M.
B.S., University of California, Los Angeles; M.Phil., Ph.D., Columbia University

UNTERSEHER, CHRIS, Art
B.A., San Francisco State University; M.A., University of California, Davis

V

VALENTINE, KEN
B.A., University of Michigan; M.A., San Francisco State University; A.F.I., Directing Fellow

VALESCO, FRANCES, Older Adults
B.A., University of California, Los Angeles; M.A., California State University Long Beach

VAN, CHARLES, Business
B.S., San Francisco State University; M.S., San Francisco State University; CPA – State of California

VAQUERA, CHRISTINA, Graphic Communications
B.A., California State University, Chico, California

VASUDEVA, SACHIN
B.Eng, Delhi College of Engineering; M.S., University of California, Irvine

VAUGHN, LESLIE, English as a Second Language
B.A., University of California, San Diego; M.A., San Diego State University

VAUGHN, SANDRA, Transitional Studies
B.A., University of California, Santa Cruz; M.A., New College of California

VELTRE, DANIEL
B.A., M.A., San Francisco State University

VENTURA, JOHN L., English as a Second Language
B.A., Pace University; M.A., Hunter College

VILLANUEVA BELTRAN, ESPERANZA, Older Adults
B.F.A., M.A., University Autonoma of Mexico

VILLELA, VALORIE, Consumer Education
B.S., Whitworth College, Spokane, WA

VINCENT, FREDERICK, African American Studies
Ph.D., University of California, Berkeley

VIRAMONTES, XAVIER, Art
B.F.A., San Francisco Art Institute; M.A., San Francisco State University

VIRAY, EDMUND
B.A., Golden Gate University; M.B.A., Hayward State University

VOELKEL, LISA (MAKO)
B.A., University of Maryland; M.A., University of Houston

VYSOTSKIY, VITALIY, Mathematics
B.S., Moscow University of Railroad Transport; M.S., Ph.D., Tomsk University
WAGNER, DOROTHY WEBER
B.S., University of Wisconsin, Madison; M.B.A., University of Pittsburgh, Pennsylvania

WALKER-MACLEAN, MARY CHERYL,
English as a Second Language
B.A., University of Washington; M.A., San Francisco State University

WALLACE, SUSAN ANN,
English as a Second Language
B.A., Case Western Reserve University

WALSH, ELDREN
Journeymen Machinist

WANG, JACOB,
Child Development & Family Studies
B.A., Stanford University; M.A., University of California, Berkeley

WANG, JEAN,
Foreign Language
B.A., Shanghai Foreign Language Institute; M.A., University of California, Berkeley; M.A., Fresno State University

WARSCHAUER, MARK
B.A., University of California, Santa Cruz

WAUGH, SANDRA,
Speech Communication
B.A., M.A., San Francisco State University

WEEKLEY, DEMIAN,
English as a Second Language
B.A., University of Georgia; M.A., San Jose State University

WEI, LEWIS LOYI
B.A., Nan Kai University

WEIDE, DARLENE,
Health Education
M.P.H., M.S.W., University of California, Berkeley

WEINBERG, GARY
B.A., M.A., University of Arkansas

WEINTRAUB, DAVID
B.A., Columbia University

WERLEIN-JAEN, LAMOIN
B.A., University of Madison, Wisconsin

WELDON, AUBREY W.
A.A., Bakersfield College; B.S., Los Angeles State University; J.D., University of California, Hastings College of the Law

WELDON, TIM
B.A., University of Cincinnati, Ohio

WEN, JING,
English as a Second Language
B.A., Chongshan University; M.A., San Francisco State University

WESLEY, JACQUELINE
B.A., San Francisco State University; M.F.A., Mills College

WESLEY, JAMES
Journeyman Welder

WESTERFIELD, ELIZABETH
B.A., University of Missouri, Columbia; M.A., San Francisco State University

WESTON, JEFF,
Photography
B.A., San Francisco State University

WHITE, DEIRDRE,
Art
B.F.A., Tyler School of Art, Temple University, Philadelphia; M.F.A., University of California, Davis

WHITE, RAYMOND R.,
Biological Sciences
B.A., Claremont McKenna College; A.M., Ph.D., Stanford University

WICK, CORinne CORKY,
Speech Communication
B.A., University of Wisconsin; M.A., San Francisco State University

WILEY, HELEN CANNON
B.A., M.A., San Francisco State University; M.L.S., University of California, Berkeley

WILK, JOHN R.,
Theatre Arts
B.A., State University of New York; M.A., San Francisco State University; Ph.D., Wayne State University

WILKINS, ETHEL M.
A.B., Benedict College, Columbia, SC

WILLIAMS, ANN
B.A., San Francisco State University; M.L.S., University of California, Berkeley

WILLIAMS, DELORES,
Child Development & Family Studies
B.A., M.A., University of Wisconsin at Milwaukee

WILLIAMSON, KATHERINE,
Mathematics
B.A., B.S., University of California, Davis; M.S., California State University, Hayward

WILLMOTT, DONNA,
Health Education
M.P.H., San Francisco State University

WILNER, LORRAINE,
Fashion
The Boston Museum School

WILSON, EMILY,
Transitional Studies
B.A., St. John's College; M.A., San Francisco State University; M.S., Columbia University

WIKAMULIA, SAM,
Business
B.S.B.A., Hawaii Pacific University; M.S., San Jose State University

WISNIESKI, CAROLJIN
B.A., Regis College, Weston, Mass.; M.A., North Texas State University, Denton

WOBogo, VuLINDLELA,
African American Scholastic Programs, Transitional Studies
B.S., M.S., San Jose State University

WOFF, RONALD,
Child Development & Family Studies
B.A., San Jose State University; M.A., California State University, Fresno

WONG, CHEERFIELD
B.A., University of British Columbia

WONG, DANNY
A.A., City College of San Francisco; B.A., San Francisco State University; M.A., Golden Gate University

WONG, DOC-FAI
A.A., City College of San Francisco; Chairman, Choy Li Fut-Tai Chi International Federation

WONG, EDMUND
B.S., San Francisco State University, M.S., Golden Gate University

WONG, JANE,
Business
A.A., Skyline College; B.S., San Francisco State University M.B.A., Golden Gate University; Ed.D., University of San Francisco

WONG, JONES
B.S., San Jose State University; M.S., University of California, Berkeley

WONG, JONES D.
A.A., Merritt College; B.A., University of California Berkeley; M.A., San Francisco State University

WONG, KHENA,
Foreign Language
B.A., M.A., University of Hawaii, Manoa

WONG, LORENA,
Student Health Services
B.A., University of California, Berkeley; M.S.W., University of California, Los Angeles

WONG, MANUEL,
Child Development & Family Studies
B.A., M.A., San Francisco State University

WONG, MELVIN F.,
Engineering and Technology
B.S., B.A., University of California, Davis

WONG, OSCAR C.,
Business
A.A., City College of San Francisco; M.A., San Francisco State University

WONG, SEBASTIAN,
Health Care Technology
B.A., University of California, Berkeley; EMT-Paramedic

WONG, TINA
B.A., M.S. San Francisco State University
WONG, TONY, *Architecture*  
B.S., M.Arch., University of Nebraska, Lincoln; M. Landscape Arch., University of California, Berkeley

WONG, WEN YEE, *Foreign Language*  
B.A., M.A., San Francisco State University; M.A., University of San Francisco

WOO, MAY, *Consumer Education*  
B.S., University of California, Berkeley

WOOD, JANICE, *English as a Second Language*  
B.S., University of Massachusetts; M.A., San Francisco State University

WOODING, ROB  
Bachelor of Architecture, University of Oregon

WOODLAND, KIRT, *Engineering and Technology*  
B.S., University of California, Davis; M.A., University of California, Riverside; Ph.D., University of California, Los Angeles

WRIGHT, ETSUkO T., *Foreign Language*  
B.A., Kyoto University of Foreign Studies; M.A., San Francisco State University

WYLD, ERNIE  
Journeyman Stationary Engineer

WYNNE, PATRICIA, *Music*  
M.A., San Francisco State University

YAN, AIMEE Y., *Consumer Education*  
B.S., University of California, Berkeley; M.S., San Francisco State University

YAN, JIMMY, *Health Education*  
A.S., City College of San Francisco; B.S.N., California State University, Long Beach; M.S.N., San Francisco State University

YE, GORDON, *Engineering and Technology*  
B.S., University of Illinois Urbana-Champaign; M.A., University of California, Berkeley

YEUNG, ELLEN, *English as a Second Language*  
B.A., M.A., San Francisco State University

YOKOYAMA, ELAINE  
Pharm.D., University of California, San Francisco

YOKOYAMA, ELAINE  
Pharm.D., University of California, San Francisco

YOUNG, ALLAN, *Library and Learning Resources*  
B.A., M.B.A., Duke University; M.A., University of Michigan

YOUNG, ANNIE MCMILLIAN  
A.A., B.S., Alabama State University, Montgomery; M.L.S., University of California, Berkeley

YOUNG, BARBARA, *English as a Second Language*  
B.F.A., Seattle University, Washington; M.A., College of William and Mary, Williamsburg, Virginia

YOUNG, EUGENE, *Graphic Communications*  
B.F.A., California College of Arts

YU, ALLAN, *English as a Second Language*  
M.A., San Francisco State University

YU, GRACE TIEN-SUEN, *Foreign Language*  
B.A., National Taiwan University; M.A., University of California, Berkeley; M.A., New York University

YUE, SINGKIN  
B.A., University of California, Santa Barbara; M.A., San Francisco State University; PH.D., The Wright Institute

YUNG, RENE, *Interdisciplinary Studies*  
B.A., Stanford University, Stanford, California

YUNG, ROB, *English as a Second Language*  
B.A., San Diego State University; M.A., San Francisco State University

ZAHEDI, SHAYE, *Biological Sciences*  
Ph.D. Stanford University

ZAMINSKY, MENA, *Health Education*  
M.S., California Institute of Integral Studies

ZEBARJADIAN-DEARBORN, YEGANEH(YEGGIE), *Engineering and Technology*  
B.A., University of California, Berkeley; Ph.D., UCB, Santa Barbara; Post Doc., Geron Corporation-Menlo Park California

ZEIGER, MARGARET, *Culinary Arts and Hospitality Studies*  
B.S. University of California, Berkeley, M.B.A, Golden Gate University

ZELAYA, MANUEL, *Business*  
M.B.A., Golden Gate University; B.S., University of San Francisco

ZENDEJAS, SAL  
B.A., San Francisco State University; M.A., Stanford University

ZETES, KATHLEEN, *Child Development & Family Studies*  
B.A., Syracuse University; M.A., Lone Mountain College

ZHANG, ROGER, *English as a Second Language*  
M.A., University of Mississippi

ZIMMERMAN, MICHELE  
B.A., State University of New York, New Paltz

ZINDEL, LAURA  
B.F.A., Rhode Island School of Design; M.F.A., University of Massachusetts

ZONE, STEPHANIE, *Behavioral Science*  
B.A., University of California, Santa Barbara; J.D., University of California, Los Angeles; M.A., Psy. D., California School of Professional Psychology
Emeritus Faculty and Administrators

A

ABARKA, SUSAN, Disabled Students
B.A., Rhode Island College, Providence; M.A., San Jose State University

ANGELOFF, THOMAS, Engineering and Technology
B.S., Arch., Kent State; M.S., M.A., University of Akron

AUGUSTINE, HENRY L. JR., Dean, Evans Campus/Southeast Campus
B.A., University of San Francisco; M.A., San Francisco State University; Ed.D., University of San Francisco

AYALA, HILDA, English as a Second Language, Office Occupations
B.A., Idaho State University, Pocatello; M.A., San Francisco State University

B

BADGER, JENNIFER, Art
B.A., Pomona College; M.F.A., Columbia University

BAIRD, ROGER LEE, Art
B.F.A., M.F.A., California College of Arts and Crafts

BAILEY, ROBERT, Dean, Admissions and Records
B.A., San Francisco State University; M.A., San Jose State University

BASS, DANA, Computer Science
B.A., New York University; M.A., Mills College

BATCHelor, KAREN, English as a Second Language
B.A., M.A., San Francisco State University

BATES, STANLEY, Business
B.A., St Ambrose College, Chicago IL; M.A., D.P.M., Northwestern Institute, Evanston, IL

BEAVER, WILLIAM, Computer Science
A.A., Laney College; B.A., California State University, Hayward

BERNSTEIN, DIANA, Student Health
B.S., University of Pennsylvania; M.S., University of California, San Francisco

BIEHN, JENNIFER, Business
B.A., M.Ed., University of Washington, Seattle

BLOOM, HARRIET “TERRY”, Older Adults
B.A., M.S.W., University of California, Berkeley

BRINSON, ROSEMARY, Continuing Student Counseling
B.A., Western Michigan University; M.Ed., University of Arizona

BRONGEN, RICHARD, Engineering and Technology
A.A., city College of San Francisco; B.A., San Francisco State University

BROWN, BRENDA, New Student Counseling
B.A., Tougaloo College; M.A., Tennessee State University

BULLARD, PETE, English as a Second Language
B.A., Ohio Wesleyan University; M.A., University of Oregon; M.A., San Francisco State University

C

CABRAL, BARBARA ANN, Interdisciplinary Studies
B.S.N., M.S., University of California, San Francisco; M.A., Ph.D. (candidate), California Institute of Integral Studies

Caldwell, MARY, Business
B.S., Ohio State University, Columbus; M.S., San Francisco State University

CARRASCO, LINDA, English as a Second Language
B.A., Pennsylvania State University, State College; M.A., New York University, NY

CASSERLY, JOHN, Business
B.A., University of San Francisco

CERONE, LYDIA, Business
B.S., University of Puerto Rico, Rio Piederas; M.A., University of San Francisco

CERONE, PHILIP, English as a Second Language
B.A., Temple University, Philadelphia, PA; M.A., San Francisco State University

CEtinich, Daniel, English as a Second Language
B.A., University of San Francisco; M.A. San Francisco State University

CHANG, HORTENSIA, Disabled Students Programs and Services
B.A., Simpson College; M.Div., Golden Gate Baptist Theological Seminary; M.S., San Francisco State University; Ph.D., California Graduate School of Marital and Family Therapy

CHANG, NICOLLA, Dean, Matriculation/Assessment Testing
B.A., Ohio Wesleyan University, Delaware, OH; M.A., University of San Francisco

CHIN, EMILY WONG, English as a Second Language
B.A., San Francisco State University; M.A., Ed.D., University of San Francisco

D

DAVIS, PATRICIA J., College Success, Learning Assistance
B.A., California Polytechnic State University; M.A., San Francisco State University

DAWSON, ROBERT M., English as a Second Language
B.A., Harvard University, Cambridge

Del Portillo, Carlotta Texidor, Dean, Mission Campus
B.A., Hunter College, New York, NY; M.A., Ed.D., University of San Francisco

Diaz, Jorge E., Aircraft Maintenance Technology
B.S., Southern Illinois University; M.S., Eastern Illinois University; FAA Airframe and Powerplant Certificate

Dyer, Frederick B., Interdisciplinary Studies
B.A., University of New York; M.A., Stanford University

E

Ericson, Beth, English as a Second Language
B.A., University of California, Berkeley; M.A., San Francisco State University
ERWIN, MARY CINDA, Biological Sciences
B.S., M.S., M.Ed., University of Hawaii; M.S., San Francisco State University

FOCH, CHARLOTTE H., Associate Dean of Student Activities
B.A., Baldwin-Wallace College; MDiv., General Theological Seminary

FLAGIELLO, CAROLYN, Nursing, Licensed Vocational
R.N., St. Joseph’s College of Nursing, San Francisco; B.S., Lone Mountain College, San Francisco; M.A., University of San Francisco

FRIED-LEE, LAURI, English as a Second Language, Office Occupations
B.A., M.A., University of Michigan, Ann Arbor

GABRINER, ROBERT S., Dean of Research, Planning, Grants
B.A., Cornell University; M.A., University of Wisconsin, Madison; Ed.D., University of California, Berkeley

GARFINKLE, JOAN, New Student Counseling
B.A., M.A., San Francisco State University; M.A., Ed.D., University of San Francisco

GATLIN, ROCHELLE, Social Sciences/History
B.A., San Francisco State University; M.A., Ph.D., University of Pennsylvania

GEE, COLEEN, New Student Counseling
B.A., Chinese University of Hong Kong; M.A., Santa Clara University, California

GILLETTE, LINDA, English as a Second Language
B.A., M.A., San Francisco State University

GLICK, STEVEN, Dean, Downtown Campus; School of Business
B.A., University of California, Berkeley; J.D., Georgetown University

GONZALEZ, JACOB E., New Student Counseling
M.A., Ed.D., University of San Francisco

GORHAM, PEGGY, Music
B.A., San Jose State University; M.F.A., Mills College

GRILIKHES-MAXWELL, PHYLLIS, Behavioral Sciences/Psychology
B.A., San Francisco State University; M.A., Ph.D., Wright Institute

GROTHKOPP, WILLIAM JR., Business
B.M., New England Conservatory of Music; M.A., University of California, Berkeley; D.M.A., Stanford University

HAAS, URSULA, English as a Second Language
B.A., M.A., San Francisco State University

HAMILTON, EDWARD, Culinary Arts and Hospitality Studies
Certified culinary Educator

HARDIMAN, DAVID, Music
B.M.E., Indiana University; M.M., Butler University

HASIB, SHAMA, English as a Second Language
Diploma, University of Edinburgh; M.A., Dacca University; M.A., University of San Francisco; Ed.D., University of San Francisco

HENDRICKS, JO ANN, Business
B.A., San Francisco State University; M.A. (Business Education), M.A. (Political Science), San Francisco State University

HERMAN, STEPHEN J., Dean, Administrative Services
B.A., State University of New York, Oswego; M.F.A., University of Massachusetts, Amherst

HOO, YEN-KUANG, Biological Sciences
B.S., National Taiwan University; M.S., San Francisco State University; Ph.D., University of California, Davis

HOCK, MARGARET, Business
B.A., St. Lawrence University, Canton, NY; M.A., San Francisco State University

HOCKMAN, BARBARA, English as a Second Language
B.A., St. John’s College, Annapolis, Maryland; M.A., San Francisco State University

HOLBERT, JAMES RAYMOND, Art
A.A., Laney College; B.A., M.F.A., University of California, Berkeley

HOUCK, CHARLES, Disabled Students Programs and Services
B.A., University of California, Berkeley

HOW, MAMIE, Director, Educational Technology
B.A., M.B.A., University of California, Berkeley; M.A., San Francisco State University

HSU, HILARY, Business
Southern Illinois University, Carbondale; M.S., M.B.A., University of California, Berkeley

JABBIN, ABDUL, Interdisciplinary Studies
B.A., M.A., University of Punjab; M.A., Ph.D., Western Reserve University

JACOBSON, SARA, English as a Second Language
B.A., M.A. San Francisco State University

JENKINS, ALVIN, Director, Extended Opportunity Programs and Services
A.B., M.S., Indiana University, Bloomington, Indiana

JOHNSON, DENNIS, Social Sciences/Economics
B.A., San Diego State University; M.A., University of California, Berkeley

JOHNSON, DENNIS R., English as a Second Language
B.A., University of Minnesota, Minneapolis; M.A., Stanford University

JOHNSON, GREGORY, Career Development Counseling
B.S., University of California, Davis; M.A., California State University, San Luis Obispo

JOHNSON, PAUL L. JR., Disabled Students Programs and Services
B.A., Universidad de las Americas, Mexico City

JOHNSON, ROSEMARY, New Student Counseling
B.V.E., San Francisco State University; M.A., University of San Francisco

JONES, RITA, Dean, Library and Learning Resources
B.A., M.L.S., University of California, Berkeley

JOY, DIANA L., Business
B.A., M.A., San Francisco State University

KAN, JIMMY P.P., Mathematics
B.A., M.B.A., University of California, Berkeley; M.S. (Physics), M.S. (Mathematics), Ph.D., Stanford University

KELLY, MICHAEL, Computer Science
A.A., College of San Mateo; B.S., University of San Francisco; M.A., San Francisco State University
KERR-SCHOCHET, KATHLEEN, Disabled Students Programs and Services
B.S., Towson State College, Baltimore, Maryland; M.Ed., Loyola College, Baltimore;
C.A.S.E., Johns Hopkins University, Baltimore

KLEIN, LAWRENCE C., Dean, School of Behavioral and Social Sciences
B.A., Rutgers University; M.A., Washington University

KNIGHT, MARLA, Transitional Studies
B.A., University of California, Berkeley

KRAMER, LESLIE H. LAILA, English as a Second Language
B.A., M.A., San Francisco State University

KUIZENGA, ELIZABETH, English as a Second Language
B.A., University of California, Berkeley; M.A., San Jose State University

KUUISTI, SHARYN, Foreign Languages
B.S., M.A., Ph.D., University of Minnesota, Minneapolis

KWAN, MARION, Extended Opportunity Programs and Services
B.A., Hastings College; M.A., San Francisco State University

L

LA BRIE, PORTIA, Extended Opportunity Programs and Services
B.A., Mills College; M.A., University of San Francisco

LADDIN, LAURENCE, Behavioral Sciences/Psychology
B.A., New York University; Ph.D., State University of New York at Buffalo

LALLAS, JAMES M., Engineering and Technology
A.A., City College of San Francisco; B.S., M.S., University of California, Berkeley

LANDES, DAVID, Social Sciences/Economics
B.A., Antioch College; M.A., Ph.D., Washington University

LAWSON, SUSAN, English as a Second Language
B.A., University of Iowa

LEE, RONALD TSE, District Legal Counsel
B.A., St. Olaf College; Ph.D., University of California, Berkeley; J.D., University of San Francisco

LEONG, WINNIE W., Foreign Languages
B.A., University of California, Berkeley; M.A., San Francisco State University

LOPEZ, EFRAIN, Physics
A.A., Hartnell College; A.B., University of California, Berkeley; M.S., San Francisco State University; Ph.D., University of California, Davis

LOUIE, LOUISE, English as a Second Language
B.A., Oregon State University, Corvallis; M.A., University of Hawaii, Honolulu

LUCEY, MARTHA, Dean, Marketing and Public Information
B.S., Temple University; M.L.S., Drexel University

MALILA, LINDA, English as a Second Language
B.A., Michigan State University; M.A., San Francisco State University

MAR, WARREN, Vocational Education
M.A., Harvard University

MASE, SUSAN, Disabled Students Programs and Services
B.S.E., University of Arkansas, Fayetteville; M.A., Western Michigan University, Kalamazoo

MASSEY-HENDESON, MARYLOU, Disabled Students Programs and Services
B.S., Boston University, Boston, Massachusetts; M.S., San Francisco state University; M.S., California State University, Hayward

MASSI, R. WOOD, Music
B.A., University of Alabama; B.A., University of California, Berkeley; M.A., Mills College; Ph.D., University of California, San Diego

MATHES, VALERIE, Social Sciences/History
B.A., M.A., University of New Mexico; Ph.D., Arizona State University

MEIS, VINCENT, English as a Second Language
B.A., Tulane University; M.A., San Francisco State University

MCALLISTER, KEITH, Mathematics
B.A., M.A., University of California, Berkeley

MCDANIEL, LILLIAN, Transitional Studies
B.S., Indiana University, Bloomington

MILLAR, WILLIAM STUART, Aircraft Maintenance Technology
A.A., Pasadena City College; B.S., Moody Bible Institute; Airframe and Power Plant Certificate, Federal Aviation Administration

MIYAMOTO, EDWARD, Aircraft Maintenance Technology
A.A., Reedley College; B.S., San Jose State University; M.S., California State University, Hayward; Airframe and Power Plant Certificate, Ground and Flight Instructor Certificate, Federal Aviation Administration

MOGAR, MARIANNINA, Child Development & Family Studies
B.A., Hunter College, New York, NY; M.A., Iowa State University, Iowa City

MORELL, GERALD F., Mathematics
A.A., City College of San Francisco; B.S., University of California, Berkeley; M.S., California State College, Sonoma

MOSS, GEORGE D., Social Sciences/History
B.A., University of California, Los Angeles; M.A., University of California, Berkeley

N

NAKAHATA, ALICE, Child Development & Family Studies
B.S., University of California, San Francisco; M.A., San Francisco State University

NAKAMURA, LOUISE, Disabled Students Programs and Services
B.S., University of Illinois, Urbana; M.S., San Francisco State University

NANCE, GLENN, Social Sciences/History
A.A., City College of San Francisco; B.A., San Francisco State University; M.A., Stanford University

NEWTON, VICTORIA, English as a Second Language
B.A., University of California, Berkeley; M.A., San Francisco State University

NOLTE, JOAN, Disabled Students Programs and Services
B.S., San Francisco State University

O

O’HARE, MELANIE, English as a Second Language
B.A., San Jose State University; M.A., San Diego State University

OLDHAM, MARY, Business
B.A., San Francisco State University; M.A., University of San Francisco

OLIVER, JOHN, English as a Second Language
A.B., University of North Carolina, Chapel Hill; M.A.T., Reed College, Portland
PADUA, JOSEPH, New Student Counseling
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

PALMA, FREDDY, Aircraft Maintenance Technology
A.S., City College of San Francisco; B.A., San Francisco State University; Airframe and Power Plant Certificate, Federal Aviation Administration

PASQUINI, PHIL, Art
B.F.A., San Francisco Art Institute; M.F.A., San Francisco Art Institute

PIRELLI, ERWIN, Culinary Arts and Hospitality Studies
Former Executive Chef

POLLACK, BARY, Computer Science
S.B., Massachusetts Institute of Technology; M.S., Ph.D., Stanford University

PROULX, GREGORY, Learning Assistance
B.A., University of Illinois, Chicago; M.S.Ed, Western Illinois University

RAJU, SOLOMON, Biological Sciences
B.S., Andhra Christian College; B.S., Honors, M.S., Ph.D., Andhra University, India

RAPPLEYE, A. ANNETTE, Physics
B.S., Purdue University; M.S., Ph.D., University of Colorado

REDFEARN, GERMAINE, Foreign Languages
B.A., M.A., University of California, Berkeley

REDICK, MARY, Behavioral Sciences/Anthropology
B.A., M.A., Ph.D., Washington State University

REICHERT, LESLIE, English as a Second Language
B.A., University of California, Berkeley; M.L.S., University of Michigan; M.A., San Francisco State University

REILLY, REBECCA, Disabled Students Programs and Services
B.A., Arizona State University; M.A., San Francisco State University

REIMAN, GARY, Business
B.S., M.A., Arizona State University

RENNER, MARY, Business
B.A., M.A., University of Oregon; Registered Professional Reporter

ROBERTSON, JUANITA, Business
B.A., Antioch College West, San Francisco; M.A., San Francisco State University

ROONEY, MAUREEN, English as a Second Language
A.B., University of California, Davis; M.A., San Francisco State University

ROSE, ARTHUR, Business
A.B., Rutgers University, New Brunswick, NJ

RULE, ANN, Computer Science
B.A., M.S., University of Tennessee, Knoxville

RYDER, MARGE, English as a Second Language
B.A., Middlebury College, Middlebury, VT; M.A., School for International Training, Brattleboro, VT

SAFIER, FRED JR., Mathematics
B.A., Harvard College; M.S. Stanford University

SANTOS, RODNEY A., Associate Dean, Student Advocacy, Rights and Responsibilities
A.A., City College of San Francisco; B.A., M.A., San Francisco State University

SEETO, BIG-QU, English as a Second Language
B.A., Wheaton College, Norton, MA; M.Ed., Harvard University, Cambridge, MA

SEYMOUR, SHARON, English as a Second Language
B.A., Bucknell University, Lewisburg, PA; M.A., San Francisco State University

SHANAHAN, MAUREEN, Health Care Technology
B.S.N., California State University, Dominguez Hills; MN, University of Phoenix

SHARLOW, GEORGE W., Behavioral Sciences
B.A., Marquette University; Ph.D., University of Minnesota

SHELBY, RUTH, English as a Second Language
B.A., University of Michigan, Ann Arbor

SMITH, BRUCE, Dean, School of Liberal Arts and Castro/Valencia Campus
B.A., George Washington University; M.A., Catholic University; M.A., University of California, Santa Barbara; Ph.D., University of California, Los Angeles

SQUIRES GROHE, LINDA, Dean, John Adams/School of Health and Physical Education
B.A., M.A., San Jose State University

SROUJI, GHASSAN, Mathematics
B.A., University of San Diego; M.A., University of Illinois; J.D., San Francisco Law School

ST. JOHN, DANIEL L., Management Analyst
B.A., Occidental College; M.S., Stanford University

STEIN, JUDITH, Behavioral Sciences/Psychology
B.S., University of California, Los Angeles; M.S., California State University, East Bay

STERING, EDWARD L., Foreign Language
B.A., University of California, Berkeley; M.A., California State University, Chico

STEWART, BARBARA, English as a Second Language
B.A., M.A., San Francisco State University

SURREY, KEITH, English as a Second Language
B.A., Ohio University, Athens; M.A., San Francisco State University

SYKES, GREGORY, Transitional Studies
B.M., Bethune Cookman

TANG, PAUL, Mathematics
B.S., M.S., Illinois State University

TAM, MO-SHUE, English as a Second Language
B.A., Dip. Ed., Hong Kong University; Postgraduate Diploma in General Linguistics, University of Edinburgh; Ph.D., University College, University of London

TENG, JUDY, Dean, Contract Education/Community Services
B.S., University of Oregon; M.S., San Francisco State University

THEIGE, GARY, Social Sciences/Economics
B.A., University of Washington; M.A., University of California, Davis

THOMAS, BARBARA, Career Development Counseling
B.A., University of California, Santa Barbara; M.A., San Francisco State University

THORNBUGH, JANET, English as a Second Language
B.A., University of Colorado; M.A., San Francisco State University

TOM, GARY, Dean, Alemany Campus
A.A., City College of San Francisco; B.A., San Francisco State University; M.A., Occidental College, Los Angeles; M.A., University of San Francisco; M.P.A., Golden Gate University

TONG, DORLEEN, English as a Second Language
B.A., San Francisco State University

TRACY, JUNE, English as a Second Language
B.A., San Francisco State University
TRAGARDH, THOMAS, English as a Second Language
B.A., M.A., San Francisco State University

TRUONG, BARBARA B., New Student Counseling
B.A., North Dakota State University, Fargo, ND; M.S., Moorhead State University, Moorhead, MN; Ed.S., University of Minnesota, Minneapolis

TSANG, SIMON, English as a Second Language
B.A., University of London, England; M.A., University of San Francisco

TSAO, CHI-WING, Dean, School of Science and Mathematics
A.S., College of the Ozarks; B.S., University of Arkansas; Ph.D., University of California, Berkeley

VAUGHN, LESLIE A, English as a Second Language
B.A., University of California at San Diego; M.A., San Diego State University

VITORELO, JOAN C., International Student Counseling
B.S., University of San Francisco; M.S., San Francisco State University

VON BOZZAY, GEORGE FULLER, Behavioral Science/Psychology
B.S., Washington State University; M.S., Ph.D., University of Massachusetts; Licensed Psychologist, State of California

WANG, ELAINE MEI-YUEN, English as a Second Language
B.A., Wellesley College, Wellesley, MA; M.A.T., Harvard University, Cambridge, MA; M.A., University of California, Berkeley

WANG, JIE, Vocational Nursing
B.S., RN, University of East Anglia; M.A., Middlesex University, London

WARD, JAMES, Transitional Studies
B.A., University of San Francisco; M.A., San Francisco State University

WETZEL, CHERIE, Biological Sciences
A.A., Chabot College; B.A., M.A., Stanford University; Ph.D., University of California, Berkeley

WILDE, JOHN W., Disabled Students Programs and Services
B.S., Northern Illinois University; M.S., Ph.D., Southern Illinois University

WILLET, JANET, English as a Second Language
B.A., University of Oklahoma, Norman; M.A., University of San Francisco

WHITE, AUSTIN, Social Sciences/History
B.A., San Francisco State University; M.A., University of California, Berkeley

WHITE, THOMAS, English as a Second Language
B.A., M.A., University of Arizona, Tuscon

WINNELL, JUDY, English as a Second Language
B.A., San Jose State University; M.A., San Francisco State University

WOLF, KATHLEEN, English as a Second Language
B.A., M.A., San Francisco State University

WONG, FRANCISCO R., Social Sciences/Political Science
B.A., Northern Michigan University; M.A., University of Detroit; M.A., Ph.D., University of Michigan; J.D., University of California, Berkeley

WONG, PAUL, International Student Counseling
B.S., Hong Kong Baptist College; M.A., San Francisco State University

WOODS, ANTHONY, Business
B.A., M.A., California State University, Los Angeles

YATACO, CLAUDIA, English as a Second Language
B.A., UNIFE, Lima, Peru; M.A., San Francisco State University

YAVORSKY, EUGENIA, Business
B.S., Wayne State University, Detroit, MI

YOUNG, PAUG G., Biological Sciences
A.A., San Bernandino Valley Community College; A.B., M.A., Humboldt State University;

ZAKUS, SHARRON, Health Education
A.A., City College of San Francisco; B.A., M.S., San Francisco State University

ZINN, LINDA, English as a Second Language
B.A., M.A., San Francisco State University; M.L.S., University of California, Berkeley
## INDEX

### A

- AAPS. See Counseling, New Student
- Academic Computing and
  - Resource Center .................. 36
- Academic Freedom .................. 426
- Academic Policies and Procedures ........ 426
- Academic Probation and Dismissal .... 429
- Academic Record Symbols and Standards .................. 426
- Academic Renewal/Exclusion ........ 431
- Academic Transcript of Records ........ 431
- ACBO. See Accounting
- Accounting .......................... 127, 144
- ACCT. See Accounting
- Adding Classes, Changing Sections, Dropping or Withdrawing from Classes ........ 19
- Adjunct Faculty. See Faculty, Adjunct
- Administration of City College. See Faculty & Administration of City College
- Administration of Justice ........ 70
- Administration of Justice and Fire Science ........ 67
- Administration of Justice ........ 67
- Fire Science Technology ........ 68
- Administrative Assistant/Office Technology .................. 129
- Admissions Policy (Credit Classes) .... 14
- Admissions Policy (Noncredit Classes) .... 20
- Admission to the College ........ 14
- ADMJ. See Administration of Justice and Fire Science: Administration of Justice
- Advanced Placement Test Scores and CCSF Credit .................. 435
- Advanced Standing .................. 14
- Advisories on Recommended Preparation .................. 428
- AFAM. See African American Studies
- African American Scholastic Programs ........ 39
- African American Studies ........ 77
- AHTC. See Emergency Response Skills and Skills for Home Care Providers
- AHWC. See Unit Coordinator and Medical Computing Skills
- AIRC. See Aircraft Maintenance Technology
- Aircraft Maintenance Technology ........ 79
- Alice Staler Library. See Libraries
- AM C. See American Studies
- American Institutions and United States History Requirement ........ 57
- American Sign Language ........ 82
- American Studies ........ 83
- AMS. See American Studies
- AMSL. See American Sign Language
- ANAT. See Anatomy
- Anatomy .......................... 115
- ANTH. See Anthropology
- Anthropology .......................... 83, 115
- Appliances .................. 113
- APPR. See Apprenticeship
- Apprenticeship .......................... 84
- ARCH. See Architecture
- Architecture .................. 87
- Art History .................. 92
- ASAM. See Asian American Studies
- ASIA. See Asian Studies
- Asian American Studies .......................... 97
- Asian Pacific American Student Success Program .................. 39
- Asian Studies .................. 98
- Associate Degree Graduation Requirements .................. 46
- Associated Students ........ 3
- Associate in Arts or Associate in Science Degree .................. 2
- ASTR. See Astronomy
- Astronomy .......................... 100
- Athletic Counseling Services .................. 41
- Auditing .................. 19
- AUTO. See Automotive Technology
- Automotive/Motorcycle-Construction and Building Maintenance .................. 101
- Automotive Technology .................. 101, 106, 113
- BCST. See Broadcast Electronic Media Arts
- BIO. See Biology
- Biological Sciences .................. 114
- Biology .................. 116
- Biology Resource Center ........ 36
- Biotechnology .................. 229
- Blind/Visually Impaired .................. 216
- Bookstores .................. 420
- BOSS. See Computer Applications for Business
- BOT. See Botany
- Botany .......................... 118
- Broadcast Electronic Media Arts ........ 119
- BSEN. See Business English
- BSMA. See Business Mathematics
- BTCE. See Biotechnology
- Business .................. 125
- Business English .................. 146
- Business Management. See Supervision and Business Management
- Business Mathematics .................. 147
- C
- CAD. See Computer Aided Drafting (CAD)
- CAHS. See Culinary Arts and Hospitality Studies
- Calendar of Instruction .................. 10
- California Real Estate ........ 140
- California State University ........ 56
- CalWORKS. See Financial Aid
- Campus Attire .................. 411
- Career Development Counseling Department .... 167
- Career Development and Counseling Department .................. 2
- Catalog Rights .................. 46
- CDEV. See Child Development and Family Studies
- Certificate Curricula — Credit .................. 66
- Certificate Curricula — Noncredit .................. 66
- CHEM. See Chemistry
- Chemistry .................. 167
- Child Care Services .................. 43
- Child Development and Family Studies ........ 170
- CHIN. See Chinese
- Chinese .................. 179
- C-ID Number .................. 67
- CINE. See Cinema
- Cinema .................. 182
- City College Student Police ........ 421
- CLAS. See Classics
- Class Attendance .................. 19
- Classics .................. 185, 242
- CLW. See Commercial Law
- CNIT. See Computer Networking and Information Technology
- College Accreditation .................. 2
- College Rules and Regulations ........ 410
- Commercial Law .................. 147
- Communication Lab .................. 36
- COMP. See Computer Applications for Business
- Compliance with College Rules and Regulations and Notices ........ 410
- Computer Aided Drafting (CAD) ........ 232
- Computer Applications for Business ........ 147
- Computer Networking and Information Technology ........ 185
- Computer Science ........ 193
- Computer Usage Policy ........ 421
- Concert and Lecture Series ........ 26
- Concurrent Enrollment for High School Students ........ 14
- Construction .................. 111, 113
- Construction Management ........ 88
- Consumer Education ........ 202
- Continuing Education ........ 23
- Contract Education ........ 23
- Counseling, New Student ........ 203
- Counseling Services ........ 2, 37, 39
- Course History .................. 67
- Course Identifiers ........ 66
- Course Information ........ 66
- Course Offerings to Fit Your Schedule ........ 26
- Credit by Examination ........ 432
GRPH. See Graphic Communications
GUID. See Counseling, New Student

H
Harassment Policy. See Unlawful Discrimination and Harassment Policy
HCT. See Health Care Technology
Health Care Technology 285, 297
Health Education 300
Health Information Technology 287, 298
High School Diploma Program 399
High School Program (Noncredit) Eligibility 20
HIST. See History
History 316
HIT. See Health Information Technology
HLTH. See Health Education
HOEC. See Consumer Education
Homeless At-Risk Transitional Students (HARTS) Program 43
Honors Program 23
HUM. See Humanities
Humanities 318

I
IDST. See Interdisciplinary Studies
IGETC. See Interdisciplinary Studies
Incomplete “I” 427
Information Technology. See Computer Networking and Information Technology
Instrumental and Vocal Training 348
INTD. See Architecture
Intensive English 24
Inter-Club Council (ICC) 3
Intercollegiate Athletics 26
Intercollegiate Speech and Debate 26
Interdisciplinary Studies 24, 319, 320
International Business 138, 156
International Student Counseling 40
International Students 15
INTR. See International Business
ITAL. See Italian
Italian 323

J
Japanese 324
John Adams Campus Library, See Libraries
Josephine Cole Library, See Libraries
JOUR. See Journalism
Journalism 326
Journeyperson 85
JRNY. See Journeyperson

L
Labor and Community Studies 24, 329
LACR. See Labor and Community Studies
LAIR. See Labor and Community Studies
LALS. See Latin American and Latino/a Studies
Language Center 34
Latin American and Latino/a Studies 333
Latino Services Network (LSN) 39
LBCS. See Labor and Community Studies
Leadership Development Studies 335
Learning Assistance 336
Learning Assistance Center 3, 34
Learning Resources 34
Learning Resources and Student Services 34
Leave of Absence 19
Legal Studies. See Paralegal/Legal Studies
LERN. See Learning Assistance
Lesbian, Gay, Bisexual, and Transgender Studies 34
Liberal Arts and Sciences 341
LIBR. See Library Information Technology Libraries 34
Alice Statler Library 34
Downtown Campus Library 34
John Adams Campus Library 34
Josephine Cole Library 34
Mission Campus Library 34
Rosenberg Library 34
Library Information Skills 344
Library Information Technology 343
Licensed Vocational Nursing, See Nursing, Licensed Vocational Life Science. See Biological Sciences LIS. See Library Information Skills
Lost and Found Articles 26

M
MABS. See Computer Applications for Business
Marketing 139, 157
MATH. See Mathematics
Mathematics 344
Math Lab 36
Matriculation Exemption Policy 16
Matriculation Policy for Credit Classes 15
Matriculation Services for Students Enrolling in Noncredit Classes 20
Matriculation Steps for Enrollment in Credit Classes 16
M B. See Microbiology
MED. See Medical Assisting
Media Center 34
Medical Assisting 299
Medical Assisting Program 289
Method of Delivery 66
Microbiology 118
Military Science 347
Military Withdrawal 427
Mission Campus Library, See Libraries
MMSP. See Multimedia Courses
Motorcycle Technology 103, 109
MRKT. See Marketing
Multimedia Courses. See
Multimedia Image and Sound 122
Multiple Degrees 53
Multiple Majors 53
MUS. See Music
Music 347
Music Surveys 349
Music Theory 347

N
New Student Counseling, See Counseling, New Student
Noncredit Courses, How to Enroll 20
Noncredit Grading 426
Noncredit Programs, Services, and Resources 24
NURS. See Nursing, Registered Nursing, Licensed Vocational 354
Nursing, Registered 351
Nursing Skills Laboratory 36
NUTR. See Nutrition
Nutrition 118

O
OCAN. See Oceanography
Ocean Campus Boundaries 26
Oceanography 221
Office Technology. See Administrative Assistant/Orgnization Technology
O H. See Environmental Horticulture
OLAD. See Older Adults
Older Adults 357
General Classes 357
Health 357
Writing and Literature 358
Online Courses 25
Other Areas Of Interest 26

P
PALE. See Paleontology
Paleontology 221
Paralegal/Legal Studies 139, 157
Paramedic Program 296
Parenting 179
Parking. See Student Parking
Pass (P)/No Pass (NP) Courses 426
Radiologic Sciences ..................................... 382
RADL. See Radiologic Sciences
RE. See Real Estate
Redemption to City College ...................... 14
Real Estate ........................................... 159
Re-entry to Education Program (REP) ........ 43
Registered Nursing. See Nursing, Registered
Regular Faculty and Administrators.
See Faculty and Administrators, Regular
Regulations Governing Solicitation at City
College of San Francisco-Ocean
Campus ............................................. 416
Remedial Coursework Limitation ............... 427
Repeatability ........................................ 66
Repetition of Credit Courses .................... 429
Report Delayed .................................... 427
Residency Appeals .................................. 18
Residency Requirements ......................... 18
Retail Management ................................ 141
R.F. See Floristry
Rosenberg Library. See Libraries
RTT. See Radiologic Sciences
RUSS. See Russian
Russian .............................................. 389
San Francisco Community College Police
Department ........................................... 420
Semester and Quarter Units .................... 426
S.L. See Leadership Development Studies
Small Business ...................................... 141, 160
SMBS. See Small Business
SMBU. See Small Business
Smoking ............................................ 421
SOC. See Sociology
Sociology ............................................ 391
Solicitation. See Regulations Governing
Solicitation at City College of San
Francisco-Ocean Campus
SPAN. See Spanish
Spanish .............................................. 392
SPCH. See Speech Communication
Specific Programs Of Study ...................... 23
Speech Communication ........................... 394
Student Activities Office - Student Union .... 3
Student Classification ............................. 19
Student Complaints ............................... 418
Student Conduct .................................. 417
Student Financial Resources .................... 30
Student Grade and File Review ................. 419
Student Health Services ......................... 396
Student Housing .................................. 27
Student Identification ............................. 421
Student Lockers ................................... 421
Student Parking ................................... 421
Student Police. See City College Student
Police
Student Rights and Responsibilities .......... 417
Student Services ................................. 37
Study Abroad Programs ......................... 25
Supervision and Business Management .... 142,
162
SUPV. See Supervision and Business
Management
Symphony Forum ................................ 27
T
Telecourses ......................................... 25
Test Retake Policy ................................ 17
TH A. See Theatre Arts
Theatre Arts ......................................... 396
TIAP. See Appliances
TIAU. See Automotive Technology
TIBM. See Business Machine Technology
TICU. See Custodial
TIDR. See Drafting
TIEE. See Electricity and Energy
Conservation
TIEL. See Electronics
TIIM. See Industrial Machinery
TISA. See Sanitation
TTA. See Transportation Academy
TIIWE. See Welding
TIXX. See Construction
Transcript. See Academic Transcript of
Records
Transferability ....................................... 66
Transfer Center ..................................... 42
Transfer Information ............................... 56
Intersegmental General Education Transfer
Curriculum (IGETC) .............................. 62
University Of California ........................ 59
Transfer Program ................................ 23
Transfer to Universities and Colleges ....... 3
Transitional Studies .................. 25, 36, 399
Travel and Tourism ............................... 143, 165
TRST. See Transitional Studies
TRTV. See Travel and Tourism
TULAY (BRIDGE) Filipino-American
Student Success Program ....................... 40
Tutorial and Academic Support Programs . 35
Tutorial Center ..................................... 34

U
Unit Coordinator and Medical
Computing Skills ................................. 300
Unit of Work ...................................... 426
Units ................................................ 66
Unlawful Discrimination and
Harassment Policy ............................... 410
Visitors on Campus ..................... 421
VOCN. See Nursing, Licensed Vocational

WDPR. See Computer Applications for Business
WELE. See Welding
Welding ................................. 237
Withdrawal ............................. 427
WKEX. See Work Experience
Women's Studies ....................... 26, 404
WOMN. See Women's Studies
WOPR. See Computer Applications for Business
Work Experience ...................... 166
Working Adults Degree Program ...... 26
Work Study. See Financial Aid
Writing Success Project ............... 34

ZOOL. See Zoology
Zoology ................................. 119