City College of San Francisco
Catalog 2013-2014
CHARTERING AGENCY
City College of San Francisco was chartered by the Board of Education, State of California, on April 17, 1935.

ACCREDITING AGENCY
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 Boulevard, Suite 204, Novato, CA 94949, 415-506-0234, an institutional accrediting body recognized by the Council on Postsecondary Accreditation and U.S. Department of Education.

MAILING ADDRESS & MAIN TELEPHONE NUMBER
50 Phelan Avenue,
San Francisco, CA 94112
(415) 239-3000

CCSF INTERNET ADDRESS
www.ccsf.edu

CCSF ONLINE CATALOG ADDRESS
www.ccsf.edu/Catalog

ACKNOWLEDGEMENTS
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All information in this catalog is subject to change without prior notice. Information is as of February 20, 2013. Please consult other official campus publications as well as the online catalog for updates.

Photographers:
Joyce Benna, Monica Davey
Melissa Aries

Dividers: Nino Kikilashvili, Eriberto Nacion
OUR VISION
City College of San Francisco values and fosters superior levels of educational participation and academic success among all students. Reaching out to and including all populations, we strive to provide an affordable and unparalleled learning experience in a supportive and caring environment that leads students to successfully complete their goals.

A Teaching and Learning Community
Our principal distinction will be the high quality of instruction. The educational experience will feature successful learning in areas as varied as basic skills, academic courses, advanced honors, career and technical courses, retooling of job skills, and preparation for transfer to other educational institutions. Learning opportunities will extend to a broad array of courses and programs to offer any student a pathway to educational and career success.

An Inclusive Community
We will continue to reach out to all people, especially to those communities that encounter barriers to education; develop sustainable campuses and sites to better serve students and neighborhoods; diversify and improve programs and services for the benefit of the community; build partnerships with public, private, and community-based agencies to better respond to educational, economic, environmental, and societal needs; foster the participation of our students and employees in community life; and welcome students from around the world. Committed to lifelong educational opportunities for all, we will exchange expertise and innovation with colleagues in the state, the nation and the world.

A Diverse and Community
In our community, respect and trust are common virtues, and all people are enriched by diversity and multicultural understanding. We will maintain a supportive, positive, and productive working environment for our diverse faculty and staff, as well as a responsive environment in which student needs are met in a friendly, timely, and caring manner.

MISSION STATEMENT
Consistent with our Vision, City College of San Francisco provides educational programs and services that promote successful learning and student achievement to meet the needs of our diverse community:

Our primary mission is to provide programs and services leading to
- Transfer to baccalaureate institutions;
- Achievement of Associate Degrees in Arts and Sciences;
- Acquisition of certificates and career skills needed for success in the workplace;
- Basic Skills, including learning English as a Second Language and Transitional Studies.

In addition, the college offers other programs and services consistent with our primary mission, only as resources allow and whenever possible in collaboration with partnering agencies and community-based organizations.

City College of San Francisco belongs to the community and continually strives to provide an accessible, affordable, and high quality education to all its students. The College is committed to providing an array of academic and student development services that support students’ success in attaining their academic, cultural, and civic achievements. To enhance student success and close equity achievement gaps, the college identifies and regularly assesses student learning outcomes to improve institutional effectiveness. As a part of its commitment to serve as a sustainable community resource, our CCSF mission statement drives institutional planning, decision making and resource allocation.
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General Information ............................ 239-3000
Web address ........................................ www.ccsf.edu
Adding & Dropping Classes
Smith Hall, Room 118......................... 239-3732
Admissions & Records (Credit)
Conlan Hall, Room 107......................... 239-3285
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Smith Hall 118 .................................. 452-7400
Asian/Pacific American Student
Success Program (APASS)
Batmale Hall, Room 208....................... 452-5620
Associate Dean of Student Advocacy,
Rights & Responsibilities,
Multi-Use Building, Room 111 239-3145
Associated Students (Ocean Campus)
Student Union, Room 209 ..................... 239-3108
Bookstore (Textbooks)
Conlan Hall, Room 109......................... 239-3470
Bookstore Annex (Supplies, Computers,
Clothing)
11 Phelan Ave................................. 452-5210
CalWORKS
Bungalow 615................................. 452-5700
Career Counseling
Multi-Use Building, Room 39........ 239-3117
Child Care
Orfalea Family Center at
Ocean Campus............................. 239-3462
College Development
Science 193................................. 239-3816
Computer Labs:
Academic and Writing Lab
Rosenberg Library, Room 207 452-5883
Business Department Computer Lab
Cloud Hall, Room 111......................... 239-3769
Instructional No. 1
Batmale Hall, Room 301....................... 239-3492
Word Processing Room Rosenberg
Library, Room 521......................... 452-3577
Continuing Education
Fort Mason Art Center.................... 561-1840
General Counseling
Multi-Use Building, Room 39........ 452-5235
International Student Counseling
Multi-Use Building, Room 101 239-3942
New Students Counseling
Conlan Hall 205......................... 239-3296
Transfer Center
Science 132................................. 239-3748
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Services (DSPS)
Rosenberg Library, Room 323
(VTDD 452-5451)......................... 452-5481
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Batmale Hall, Room 514....................... 239-3574
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Services
EOPS Center................................. 239-3561
Family Resource Center
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International Students
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(Louise & Claude Rosenberg, Jr.)........ 452-5400
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Veteran’s Educational Benefits Office
Cloud Hall, Room 333......................... 239-3486
Women’s Resource Center
Smith Hall, Room 103......................... 239-3112
Working Adults Degree Program
Mission Center,
1125 Valencia............................. 920-6010
Southeast Center,
1800 Oakdale............................ 550-4344
BOARD OF TRUSTEES

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Interim Chancellor
MESSAGE FROM THE BOARD PRESIDENT

On behalf of the Board of Trustees, welcome to City College of San Francisco. Within this catalog you will find an astonishing array of classes and courses for almost any area of study.

City College offers something for everyone, whether you are striving for a degree or certificate, training for a technical career, learning English as a Second Language, brushing up on old skills or adding new ones.

In addition to the classes listed in this catalog, City College offers a large array of beneficial resources. These include intercollegiate athletics and student clubs, financial aid, and the specialized support services and counselors that help students achieve their goals. The City College web site is a good starting place to explore these resources.

I hope that you will become a part of the outstanding educational experience that City College provides, and wish you much success in pursuing your dreams through education.

Sincerely,
John Rizzo
President, Board of Trustees

MESSAGE FROM THE CHANCELLOR

Welcome to City College of San Francisco! Congratulations on selecting City College as your pathway to success. City College has provided access and opportunity to nearly 85,000 students annually in recent years. It has been inspiring to witness the multitude of diverse people who have been able to fulfill and advance their education and skills, gaining further access to higher education and finding meaningful employment. I encourage you to take advantage of our course offerings and student support services to reach your educational goals. While the College meets its accreditation obligations, CCSF continues to provide a critical resource for higher education and career training. Rest assured that at City College you will receive a truly multi-faceted education with excellent faculty and student services.

Wishing you the best in your educational pursuits!

Sincerely,
Thelma Scott-Skillman, Ed.D.
Interim Chancellor
A STUDENT’S RIGHT TO PRIVACY

Occasionally, City College of San Francisco receives requests from various entities or private persons seeking directory information on our students. These entities can be public, private or governmental in origin, e.g., private scholarship search companies, public and private colleges and universities, U.S. Military (Department of Defense and others).

“Directory Information” is defined as information contained in an educational record of a student which would not generally be considered harmful or an invasion of privacy if disclosed. It includes, but is not limited to the student's name, address, telephone listing, date and any place of birth, level of education, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended.

Directory information may be released at the discretion of the college; however, under Federal and State law, a student has the right to ask that City College of San Francisco withhold directory information about him/her. Once the request is made, directory information will be withheld from all entities. The college assumes no liability for honoring a student’s request that such information be withheld.

Students who believe that directory information (that includes courses of study such as Lesbian, Gay Bisexual, and Transgender Studies, Ethnic Studies, etc.) may identify their race, ethnicity, sexual orientation or otherwise subject them to discriminatory treatment, should be aware they have the option of not having any confidential information released to any group, agency or organization.

A request by a student to withhold directory information must be directed to the Dean of Admissions and Records in writing. This formal request must be made within the first two (2) weeks of the beginning of the academic year. Students who enroll other than in the beginning of the academic year (fall semester) must submit their request within the first two (2) weeks of the onset of his/her enrollment. This request must be signed and dated by the student. Students may also come to the Office of Admissions and Records and complete a “Request to Withhold Directory Form.”

For further information, please contact Admissions and Records, Conlan Hall, Room E-107, telephone (415) 239-3291.

CAMPUSES SECURITY ACT OF 1990 (CLERY ACT)

Information regarding CCSF’s Public Safety Data “Student/Employee Right to Know and Campus Security Act of 1990” is available online at www.ccsf.edu/Departments/Public_Safety/. Limited printed copies are available at all District campuses.

EDUCATIONAL CODE SECTION 66500 COMPLIANCE

Compliance with Education Code Section 66500, informa-
ACCESS TO PUBLIC RECORDS AND INFORMATION
City College of San Francisco maintains a website (www.ccsf.edu) that provides the public with a tremendous amount of information regarding the structure and operation of the College. If you are interested in the activities of the Board of Trustees (e.g., where and when meetings are held or personal biographies of board members) this information may be accessed through this web site. In addition, board agendas are available to the public through this web site under the Department of Finance and Administration. In order to keep the public informed, all Board of Trustees meetings are televised on Educational Cable Channel 27 which is maintained by the District.

Procedures for accessing public records held by City College of San Francisco may be reviewed on the College’s website at www.ccsf.edu. For those interested in accessing public records, please contact Office of the General Counsel, at (415) 241-2294. The designated Custodian of Public Records is Peter Goldstein, Vice Chancellor of Administration and Finance, who may be reached at (415) 241-2229.

Information regarding the District’s Strategic Plan, Educational Master Plan, and the Accreditation Self-Study Report (2006) are also available on this web site. These documents are found under the Research, Planning and Grants and provide a detailed overview of institutional activities that have occurred and are planned for the future. The Operational Budget for the College is found under the Office of the Vice Chancellor of Finance and Administration.

District procurement procedures are found on this web site under the Purchasing Department. If you are interested in doing business with the District, please send a letter of introduction along with a line card or catalog to Purchasing, 33 Gough St. San Francisco, CA 94103. If you are a small or local business certified by the City/County of San Francisco’s Human Rights Commission or with the State of California please indicate this status in your communication.

INJURY AND ILLNESS PREVENTION PROGRAM FOR WORKPLACE SECURITY
The San Francisco Community College District will make every reasonable effort to provide a safe and healthful working environment for all employees as required by federal, state or local laws, and a safe and healthful environment for students and visitors. For those desiring to know more about the district’s Injury and Illness Prevention Program, please access www.ccsf.edu for more information.
SCENES FROM CITY COLLEGE

Discover your passion.
Make a new friend.
Chase your dreams.
Achieve your goals.

Becoming a Ram means joining a vibrant, diverse community of people who love to learn, love to teach, and form a network that lasts long after you leave these halls for bigger adventures.

Join us. Your future is bright!
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<th>ADMINISTRATIVE STAFF</th>
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<td><strong>Dr. Thelma Scott-Skillman</strong></td>
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<td>Interim Chancellor</td>
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<td><strong>Dr. Nicholas Akinkuoye</strong></td>
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<td><strong>Dr. Kathleen Alioto</strong></td>
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<td>Dean, College Development</td>
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<td><strong>André Barnes</strong></td>
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<td><strong>Jorge Bell</strong></td>
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<td>Dean, Financial Aid Services and Scholarship</td>
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<td><strong>John Bilmont</strong></td>
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<td><strong>Douglas Eugene Bish</strong></td>
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<td><strong>Tom Boegel</strong></td>
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<td><strong>Michael Branca</strong></td>
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<td>Interim Dean, Employee Relations</td>
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<td>Dean, John Adams and Civic Centers</td>
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<td><strong>Samuel Santos</strong></td>
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<td><strong>Darlene Spoor</strong></td>
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<td><strong>Clara Starr</strong></td>
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<td>Dean, Human Resources</td>
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<td>Dean, Chinatown/North Beach Center</td>
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<td><strong>David Yee</strong></td>
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<td>Dean, Downtown Center</td>
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<td><strong>Gohar Momjian</strong></td>
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<td>Executive Assistant to the Chancellor</td>
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CCSF PRINCIPAL LOCATIONS
City College of San Francisco (CCSF) offers classes at Ocean Campus and 8 other center locations and more than 100 other instructional sites throughout San Francisco.

CCSF Campus locations are:
A. Ocean Campus, 50 Phelan Ave.
B. Civic Center, 750 Eddy St.
C. Chinatown/North Beach Center, 808 Kearny St.
D. Downtown Center, 88 Fourth St.
F. John Adams Center, 1860 Hayes St.
G. Evans Center, 1400 Evans Ave.
H. Mission Center, 1125 Valencia St.
I. Southeast Center, 1800 Oakdale Ave.
J. Adult Learning and Tutorial Center, 31 Gough St.

K. Airport Site, Bldg. 928, SF Airport
Identified below are some of CCSF’s larger instructional sites:
1. San Francisco Senior Center, 890 Beach St.
2. Marina Middle School, 3500 Fillmore St.
4. On Lok, 1333 Bush St.
5. Jewish Community Center, 3200 California St.
7. S.F. Human Services Department, 50 Van Ness Ave.
8. Glide Memorial Church, 330 Ellis St.
10. Mission High School, 3750 18th St.
11. Mission Language Vocational School, 2929 19th St.
12. A.P. Giannini, 3151 Ortega St.
13. Stationary Engineers JATC, 560 Barneveld Ave
14. YMCA (Stonestown), 333 Eucalyptus Dr.
15. The Janet Pomeroy Center (formerly Recreation Center for the Handicapped), 207 Skyline Blvd.
17. Visitacion Valley Community Center, 66 Raymond St.
18. Golden Gate Park Senior Center, 6101 Fulton St.
19. Eureka Valley Recreation Center, 100 Collingwood Street
20. SF Home Health, 225 30th Street
EQUAL OPPORTUNITY STATEMENT

The San Francisco Community College District is committed to providing a workplace and an educational environment free of discrimination, harassment, intimidation, threats, or coercion based on a legally protected status. Therefore it is the policy of the San Francisco Community College District to provide all persons with equal educational opportunities in all of its programs and activities regardless of race, color, national origin, ancestry, ethnic group identification, religion, age, gender, marital status, domestic partner status, sexual orientation, disability or AIDS/HIV status, medical conditions, gender identity, or status as a Vietnam-Era veteran. This will include anyone perceived as having these characteristics or associated with anyone having these characteristics. The compliance officer 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.

You can access the above statement translated into Spanish, Tagalog, Chinese, Vietnamese and Russian on the college’s web site at www.ccsf.edu/Catalog/Admin/nondiscrim.html.

EL DISTRICT OBLIGADO

El San Francisco Community College District apoya y se adhiere a la política de proveer a todo aquel que reúna las condiciones de protegido legal, un ambiente laboral y educacional libre de discriminación, hostigamiento, intimidación, amenaza o coerción. Por lo tanto, el San Francisco Community College District tiene como norma el extender oportunidades de empleo y educación a todos los interesados, sin miramientos de raza, origen, ascendencia étnica, nacionalidad, religión, edad, sexo, estado o convivencia civil, orientación o identidad sexual (hombres o mujeres homosexuales, bisexuales, transexuales o individuos de preferencia sexual indefinida), y a aquellos que padezcan de alguna incapacidad o sufran del SIDA/VIH u otras condiciones médicas. Esta protección también incluye a veteranos de la Guerra de Vietnam.

Lo que es más, los reglamentos del SFCCD prohíben la toma de represalias contra empleados o estudiantes que presenten quejas o cargos válidos o contra aquellos que participen y cooperen en investigaciones relacionadas con la violación de este reglamento.

El San Francisco Community College District se adhiere a todas las leyes aplicables, incluyendo los Títulos VI y VII del Acta de Derechos Civiles de 1964, el Acta de Discriminación de Oportunidad de Empleo por Razones de Edad, las Secciones 504 del Acta de Rehabilitación de 1973, el Acta de Americanos con Incapacidades de 1990, el Título IX de las Enmiendas Educativas de 1972, el Código del Gobierno de California Sección 11135 y siguientes, y los reglamentos y requisitos aplicables a entidades subvencionadas por fondos federales y/o estatales.

El District Affirmative Action Officer (Autoridad de Acción Afirmitativa), es la autoridad responsable para coordinar y hacer cumplir estos reglamentos. Sus oficinas se hallan en el 31 Gough Street, San Francisco, California 94103, (415) 241-2281. Para mayor información sobre estos reglamentos o sobre el procedimiento para sentar una queja, se debe consultar con la Autoridad de Acción Afirmitativa del San Francisco Community College District.

PAHAYAG TUNGKOL SA PANTAY NA OPORTUNIDAD

Ang San Francisco Community College District (San Francisco Distrito ng Kolehiyong Pang-madla) ay naka-pangako na magbigay ng lugar ng trabaho at kapaligiran edukasyonal nang walang diskriminasyon, harassment (paulit-ulit na paggugulo), pananakot, pagbabanta, o pagpili at magbigay ng katyuang ipagtagong batay sa batas. Sa gayon, ito ang patakaran ng San Francisco Community College District na magbigay ng trabaho sa lahat ng tao nang magkapareho at pagkakataong edukasyonal sa lahat ng programa at mga gawain nito nang hindi isaalang-alang ang lahi, kulay, angkang pinagmulan, bansang pinangalingan, pagkilala ng grupong panlahi, relihiyon, edad, kasarian, kalagayan ng pag-asawa, kalagayang may kasamang pantahanan, orientasyon ng tauhin, pagkainutol o lagay na may AIDS/HIV, kondisyong medikal, pagkakakilanlan ng kasarian, o kalagayang bilang isang beterano sa panahon ng digmaan sa Vietnam.

Ang mga kategoriyang ito, lalong
lalo na ay kabilang na ang kalagayan bilang isang lesbian (parehong babaing magkasintahan), gay (parehong laaling magkasintahan), taong may dala-wahang kasarian, taong nagsalin ng kasarian o taong hindi malinaw ang kasarian sa alinmang programa ng distritong pampaaralan o pagkikilos. Dagdag pa nito, hindi pahintulutan ng Distrito ang paghihiganti laban sa sinumang empleyado o estudyante para sa pag-gawa ng makatwirang reklamo o sakdal sa ilalim ng mga kondisyong maipamaraan o para sa kooperatiba sa imbestigasyon.

Pinagsusundan ng San Francisco Community College District ang lahat na naaangkop ng batas, kabilang ang Titulong VI at VII ng Civil Rights Act (Batas ng mga Karapatan Sibil) sa taong 1964, ang Age Discrimination (Diskriminasyon dahil sa Edad) sa Employment Act (Batas na Pang-employedado), Seksyon 504 ng Rehabilitation Act (Batas sa Pagpapanibagong-ayos) sa taong 1973 at ang Americans with Disabilities Act (Mga Amerikano sa Batas ng Kawalan-Lakas) sa taong 1990, ang Titulong IX ng Education Amendments (Pagususog sa Edukasyon) sa taong 1972, California Government Code Section 11135 et. seq. at ang lahat ng bagay na regulasyon, at kasama na ng lahat na naaangkop ng pangangailangan gaunay sa pagtanggap ng pondo galing sa federal at/o state.

Ang impormasyon tungkol sa mga tadhana ng mga naaangkop na batas at pamamaraan ng pag-reklamo ay puwedeng maikha sa District Affirmative Action Officer.

**THÔNG BỊNH VỀ CÔNG HỘI BỊNH ĐẰNG**

Học Khoá Đạo Học Công Đồng San Francisco cam kết cung cấp một môi trường lành mạnh, an toàn, không phân biệt, phân biệt theo giới tính, hoặc bất kỳ điều gì khác có thể gây ảnh hưởng đến học viên hoặc học viên khác, hoặc bất kỳ khai thác nào khác của học viên hoặc học viên khác, hoặc bất kỳ sự phân biệt nào khác có thể gây ảnh hưởng đến các học viên hoặc học viên khác.

Học Khoá Đạo Học Công Đồng San Francisco cam kết cung cấp cho học viên một môi trường lành mạnh, an toàn, không phân biệt, phân biệt theo giới tính, hoặc bất kỳ điều gì khác có thể gây ảnh hưởng đến học viên hoặc học viên khác, hoặc bất kỳ sự phân biệt nào khác có thể gây ảnh hưởng đến các học viên hoặc học viên khác.

Người ra Học Khoá cùng đồng ý rằng mọi sự điều tra bất kỳ sự phân biệt nào với mọi hành động hoặc sự vi phạm luật pháp hoặc hành vi của hành vi của học viên hoặc học viên khác, hoặc bất kỳ sự phân biệt nào khác có thể gây ảnh hưởng đến các học viên hoặc học viên khác.

Học Khoá Đạo Học Công Đồng San Francisco cam kết cung cấp cho học viên một môi trường lành mạnh, an toàn, không phân biệt, phân biệt theo giới tính, hoặc bất kỳ điều gì khác có thể gây ảnh hưởng đến học viên hoặc học viên khác, hoặc bất kỳ sự phân biệt nào khác có thể gây ảnh hưởng đến các học viên hoặc học viên khác.

**XV**

**ĐEKLARACIJA O RAVNYH VOSPOZNOSTYAX**

Otkriveni obrazovani San-Fransisko smieva neskorostnymi v svojoi rabochoj i prepodavatel'noj praktike sluchay diskriminacii, seksual'nyh i drugih domogat'sja, zapogival'ja, uprom i priyudenija, chto sotvetstvuet trebovanijam zakona.

Politika Otdele - predostavliajut ravnye vozmozhnosti v trude i obrazovanii vsem, nezavisimo ot ras, yu, isklyucheniya, narodnej, priyudenija k etnicheskoy gruppe, religii, vozrast, pola, semeynoj polozhenii, domashnjeh partnerstva, seksual'noj orientacii, invalidnosti, s resendnosti koi tozheshe bol'nye nisob ili nositel'noi virusa immunoedefitsita, otzogvedeniya sebi s opredelennym polom, statusu uchastnika vojny v Vjatneje.

Otkriveni eti kategorii smieva takoj status, kach lebovnikh, homoseksualist, bisexusal, lico, izmen'noye pol, ili smenivayushchee sev svojoi seksorientacii.

Daleje, Otdele nedopustit, chto kto-lichko iz soprudnikh ili studentov byl naksavat v odn na spravedlivju rabotu ili kritiku, ili uchastie v ras-sledovanii.


Otkriveni obrazovani San-Fransisko soboljat vse zakony, vkluchaya razdel VI i VII Akta o narodnix pravax ot 1964 goda, Akt o reabilitacii otkriveni 1973 goda, Akta o diskriminacii po vtorax na rabotu, razdel IX Akta o reabilitacii ot 1973 goda i Akta o narodnix pravax ot 1990 goda, razdel IX Povarakh ob obrazovanii ot 1972 goda, glavu 1135 gubernstvennogo kodexa i vse drugie ustanovnye trebovanija, otstoyashe v nalogicheskoy i drugih shatarnykh fondah.

Otkriveni obrazovani San-Fransisko soboljat vse zakony, vkluchaya razdel VI i VII Akta o narodnix pravax ot 1964 goda, Akt o reabilitacii otkriveni 1973 goda, Akta o diskriminacii po vtorax na rabotu, razdel IX Akta o reabilitacii ot 1973 goda i Akta o narodnix pravax ot 1990 goda, razdel IX Povarakh ob obrazovanii ot 1972 goda, glavu 1135 gubernstvennogo kodexa i vse drugie ustanovnye trebovanija, otstoyashe v nalogicheskoy i drugih shatarnykh fondah.
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.

City College at a Glance
- Approximately 85,000 students served annually in a diverse campus community
- Nine centers 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

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

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 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 Center 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 locations to facilitate communication, leadership, and advocacy. Each location 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 locations.

**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 locations: 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](http://www.assist.org). Other articulation information for City College can be found at [www.ccsf.edu/artic](http://www.ccsf.edu/artic).
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<td>Residency Determination Date</td>
<td>August 13, 2012</td>
<td>January 9, 2013</td>
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<tr>
<td>Instruction begins - Day/Evening Classes</td>
<td>August 14</td>
<td>January 10</td>
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<tr>
<td>First day of Saturday classes</td>
<td>August 17</td>
<td>January 11</td>
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<tr>
<td>First day of Sunday classes</td>
<td>August 18</td>
<td>January 12</td>
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<tr>
<td>Martin Luther King, Jr's Birthday - No Monday evening class</td>
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<td>January 20</td>
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<td>Last day to drop or reduce course work to obtain a 100% refund</td>
<td>August 27</td>
<td>January 24</td>
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<td>for enrollment fee &amp; N/R foreign student tuition fee</td>
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<td>Last day to add credit classes and change sections in person &amp; on</td>
<td>August 30</td>
<td>January 30</td>
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<td>Labor Day Weekend</td>
<td>August 31 - September 2</td>
<td>January 30</td>
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<td>Last day to drop credit classes w/ no notation on academic record</td>
<td>September 5</td>
<td>February 7</td>
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<td>Last day to drop or reduce course work to qualify for a 50% pro-rated</td>
<td>September 5</td>
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<td>nonresident and foreign student tuition refund fee</td>
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<td>Lincoln's Birthday</td>
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<td>February 14</td>
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<td>Presidents' Birthday weekend. No Saturday/Sunday classes</td>
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<td>February 15 – 16</td>
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<td>Washington's Birthday</td>
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<td>February 17</td>
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<td>Last day to request a pass/no pass grading option</td>
<td>September 12</td>
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<td>Last day to request GPA verification for CAL Grants</td>
<td>August 30</td>
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<td>September 30</td>
<td>February 28</td>
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<tr>
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<tr>
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<td>Last day for student/instructor initiated withdrawal from classes</td>
<td>November 7</td>
<td>April 17</td>
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<td>Veteran's Day Observance</td>
<td>November 9 – 11</td>
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<td>Faculty Flex Day (No classes)</td>
<td>November 27</td>
<td>April 25</td>
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<td>November 28 – Dec 1</td>
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<td>Last day to remove an Incomplete received in the previous semester</td>
<td>December 11</td>
<td>May 15</td>
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<td>First day of final examinations for day classes</td>
<td>December 12</td>
<td>May 16</td>
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<td>Last session &amp; final examinations for Monday evening classes</td>
<td>December 16</td>
<td>May 19</td>
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<td>Last session &amp; final examinations for Tuesday evening classes</td>
<td>December 17</td>
<td>May 20</td>
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<td>December 18</td>
<td>May 21</td>
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<td>December 19</td>
<td>May 22</td>
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<td>December 19</td>
<td>May 22</td>
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<tr>
<td>Last session &amp; final examinations for Saturday classes</td>
<td>December 21</td>
<td>May 17</td>
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<td>Last session &amp; final examinations for Sunday classes</td>
<td>December 22</td>
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<tr>
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<td>December 19</td>
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### January 2014
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ADMISSION TO THE COLLEGE

CONLAN HALL: OCEAN CAMPUS
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 Assignments (all locations); Counseling (all locations); 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. Be eighteen (18) years old or 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

www.ccsf.edu/international
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, 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.

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

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.

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 A1 or A2, Exam score of 4 or higher – 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
5. Any of the following ACT scores:
   - SAT Reasoning Test, Writing Section: 680 - 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 final 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: 
All enrollment fees and applicable nonresident tuition fees are due and payable at the time of registration. 
(Fees subject to change) 

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<th>Fee Type</th>
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<td>Enrollment fee per semester unit</td>
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<td>Non-Resident tuition per semester unit</td>
<td>$203.00 + $46.00</td>
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<td>Health fee per semester (non-refundable)</td>
<td>$17.00</td>
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<td>Web Registration fee per semester (non-refundable)</td>
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<td>(Students may also register in person during the “Open Registration” period.)</td>
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<td>Voluntary Student Activity Fee</td>
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<td>Voluntary Student Representative Fee</td>
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*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.
the fourth week of the current semester will be classified as nonresident. Those students who fail to establish California residency by the fourth week of the current semester will subsequently be assessed and billed the nonresident tuition fee for courses dropped on or before the deadline. 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) 239-3521 for assistance and information regarding the nonresident tuition refund policy, procedures, and schedules.

Nonresident Tuition Policies and Procedures are subject to change during the 2013–2014 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 residency 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.
2. If further review of residency status is required, a meeting with the Dean of Admissions and Records may be requested within two weeks of the review by the Associate Registrar.
3. Students are required to provide ALL documents required to verify their residency status.

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 semesters unit 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 within 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 coursework 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.

Student Email
All City College credit students are issued a CCSF Mail address, provided by Google. All official CCSF email will be sent to the CCSF GMail address. By using the CCSF Mail 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 Mail 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 locations.

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 location 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 location 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 location 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 location 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.
GENERAL INFORMATION

General Programs Of Study
Career and Technical Education Programs
An important function of City College of San Francisco is to provide career and technical education—two years or a shorter period of specialized college-level training designed to qualify students for entry employment or for upgrading in fields in which they have had experience or previous training. The College provides this preparation in both degree and certificate curricula.

These curricula are specifically designed to meet employers’ and community needs and, in many instances, were developed in cooperation with advisory committees representing business, industry, organized labor, civil service, and the professions. Members of the College administrative and instructional staffs meet with representatives of these groups, as the need arises, in order to revise and to develop curricula and to facilitate the employment of graduates and others.

Associate Degree. Career and Technical Education students may wish to pursue an Associate Degree program. Associate Degree programs require 60 or more units of coursework, normally taken in two years.

Students interested in pursuing an Associate Degree should familiarize themselves with the requirements as stated in the “Associate Degree Graduation Requirements” section of this catalog.

One requirement of the Associate Degree is the Major requirement.

Students may satisfy this requirement by following one of the majors specified by the department, as listed in the “Programs and Courses” section of this catalog.

Certificate Programs. Certificate curricula generally require completion of fewer (generally 12 to 30) than 60 semester units, normally in a period shorter than two years, in conformance with the requirements of a particular department of instruction. The College offers more than 120 career and technical certificates.

The requirements for this award in the various certificate curricula are stated in the section of this catalog entitled “Programs and Courses.”

The College offers certificate curricula for two groups of students:

1. those who, for various reasons, desire to prepare for entry-level employment in a period shorter than two years and hence in more limited fields than those normally open to graduates of career and technical degree (two-year) curricula; and
2. those who have had previous training or experience, or both, and desire to add to their occupational competence.

Employment. The College attempts to find employment for students who have had career and technical training, both for those who have completed their training and those who, for various reasons, have been unable to do so. Placement, of course, depends upon economic conditions; students’ abilities, aptitudes, and proficiency; and students’ records at the College.

Although the College cannot promise employment, it uses various means of helping students find positions: the extensive contacts which instructors in career and technical fields maintain with employers, advisory committees for various occupational curricula, recruitment programs through which students meet employers on campus, off-campus work experience programs, Career Development and Placement Center services, and the online resource, Career Connection (http://career.ccsf.edu).

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].

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) 239-3357.

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/continued](http://www.ccsf.edu/continued). 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 course topics 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 Ocean 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 (1000 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 Cloud Hall 214 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
ing postsecondary and/or continuing education as well as vocational training. Counseling services reinforce the overall goals and objectives of the College. Adults seeking assistance and guidance are helped to become financially, educationally, and personally self-sufficient.

GED Testing Center. The tests of General Education Development (GED) were developed by the American Council on Education to assist individuals, who have not completed their high school education, with obtaining a certificate equivalent to a traditional high school diploma. The GED battery consists of five subject areas: Math, Science, Social Studies, Language Arts-Reading, and Language Arts-Writing.

Upon successful completion of the GED tests, the California State Department of Education awards an equivalency certificate to the GED candidate. By California law, the equivalency certificate is considered equal to a high school diploma for purposes of employment in all state and local public agencies. The certificate is also accepted nationally by most employers, colleges, and universities.

City College offers the GED tests in English and Spanish. Special editions are available for the legally blind. Modifications and special accommodations for learning or physically disabled students can be made by prior arrangement and approval of the State GED Administrator only after providing supporting documents.

Students and members of the public who wish prepare for the exams should enroll in Transitional Studies GED preparation courses offered at several CCSF locations. The City College of San Francisco GED Testing Center is located at the John Adams Center at 1860 Hayes Street. For 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 locations during the day, evenings and Saturdays. Courses include a wide variety of High School subjects, GED Preparation and Adult Basic Education in reading, writing, mathematics 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 Centers. 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 Center and (415)550-4300 for Southeast Center. 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 proposals 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 Forensics Association, the California Community College Forensics 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 are requested to bring them to the College Police Department: for Ocean Campus, Cloud Hall, Rm 119, for center locations, items can be turned in to the site officer. Persons wishing to claim requested articles should contact College Police Department or on-site officer. Due to the limited storage space, unclaimed items are purged periodically.

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.

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 34-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 locations 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) online at web site 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 stu-
dent 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 com-
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 undergradu-
ate 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 cer-
tain 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.

Noncredit Financial Assistance
Financial assistance consists of grants and student employment pro-
grams offered singly or in combinations to students who demonstrate
financial need. The purpose of financial assistance is to provide mon-
etary 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 ............ 679-750
Computer Application for Business ...... 705
Computerized Accounting Specialist .... 705-735
Construction Trade ........................ 636
Culinary and Service Skills Training (CSST) .... 1020
Industrial Machinary .................... 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 recalcul-
ated 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 trans-
scripts, 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.
Learning Resources
City College of San Francisco Learning Resources facilities provide for collections and the 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 seven locations on the Ocean Campus and five centers. The holdings of the entire library system consist of a total of 222,908 volumes. The Library subscribes to more than 400 periodical titles. Online periodical and reference databases, with access to over 20,000 full-text publications, can be accessed from off-campus as well as from on-campus. Librarians provide workshops on the use of library resources at every center library. All students must have a current CCFS student identification card to check out books and access online resources. San Francisco residents may obtain a community card to gain limited 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.

Student computers provide access to all library collections, electronic resources, the internet and are configured with word processing and educational software. Wireless access is also available. The open stacks give immediate access to almost the entire collection, affording valuable opportunities for independent browsing and research.

The Language Center shares space with the Media Center in Rosenberg 403. 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, Pilipino, Russian, Spanish, and a variety of activities to supplement their language study. The electronic classroom in the English Lab on the second floor 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. Foreign 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.

The Media Center, also located in Rosenberg 403, 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 Alice Statler Library is located in the lower level of the Statler Wing of 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 Chinatown-North Beach Center Library is on the second and third floors at 808 Kearny Street (corner of Washington Street). Approximately 20% of the library’s circulating book collection is in Chinese and 80% in English. The library’s collection emphasizes books on ESL, child development, and basic education. The library has two computer labs with a total of 64 student computers, as well as a library instructional classroom with 27 student computer stations. The library also has three group study rooms available by reservation.

The Downtown Center Library is on the 2nd floor at 88 Fourth Street (corner of Mission Street) in downtown San Francisco. It houses a book collection with a focus on business and careers, ESL, and computer technology. Students have access to computers, Internet, audio-visual equipment and wireless Internet. 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 Center Library is located at 1860 Hayes Street, Room 204. 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 Center) is located on the fifth floor at 1800 Oakdale Avenue. This collection has 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 Mission Center Library is located on the fourth floor of 1125 Valencia Street. Some one hundred computers can be used for general research and classroom work. The collection of books and periodicals has been selected for both general research and for the myriad of credit and non-credit courses offered at this center.

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 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 Center offers tutoring and computer lab support for students taking credit courses at that campus in Room 401.
**Tutorial and Academic Support Programs**

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

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<th>Subject</th>
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<th>Program</th>
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<td>ESLCLAD</td>
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<tr>
<td>English</td>
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<td>English Reading and Writing Center</td>
<td>A265 and R205</td>
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<td>Foreign Languages</td>
<td>Tutoring for each language</td>
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</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 Learning Assistance Center Computer Lab located in Rosenberg Library, R207 offers open access to a 100 computers with Internet, email, MS Office and a wide variety of educational software programs for all CCSF students. Laser black and white printing, scanners and 14 laptop stations equipped with power strips and local wireless access point are available. 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, 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 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.

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. Telephone (415) 920-6042 for more information.
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.

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<td>Arts 201/Cloud 207/Multi-Use Bldg-Mezzanine</td>
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<tr>
<td>Extended Opportunity Programs and Services (EOPS)</td>
<td>EOPS Bldg.</td>
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<td>International Student Counseling Program (ISCP)</td>
<td>Multi-Use Building-1st Floor</td>
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<tr>
<td>Latino Services Network (LSN)</td>
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<td>Career Counseling</td>
<td>Multi-Use Bldg 39 (on the Mezzanine)</td>
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<td>Transfer Center</td>
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<td>Student Health Center</td>
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<td>Homeless At-Risk Transitional Students (HARTS)</td>
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<td>Financial Aid Counseling</td>
<td>Cloud 324/324 Centers</td>
<td>239-3576/3576</td>
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<tr>
<td>Civic Center Counseling</td>
<td>750 Eddy Street, Room 105</td>
<td>561-1878</td>
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<tr>
<td>Chinatown/North Beach Counseling</td>
<td>808 Kearny Street, Room 119</td>
<td>395-8611</td>
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<tr>
<td>Downtown Center Counseling</td>
<td>800 Mission Street, 1st Floor</td>
<td>267-6503</td>
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<tr>
<td>Evans Center Counseling</td>
<td>1400 Evans Avenue, Room 104</td>
<td>550-4409 or 550-4506</td>
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<td>Gough Street Center</td>
<td>31 Gough Street, Room 29</td>
<td>241-2300</td>
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<td>John Adams Counseling</td>
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<td>561-1925</td>
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<td>Southeast Center Counseling</td>
<td>1800 Oakdale Street, Room 201</td>
<td>550-4320</td>
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<tr>
<td>Re-Entry Counseling Services</td>
<td>Smith Hall 106</td>
<td>239-3297</td>
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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 415-452-5625.

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
   - 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 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 (95), 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
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 CLASS Project**
- Targeted sections for LSN students in English and Math classes.
  (Course offerings vary by semester). English courses address multicultural issues.
- Collaboration between students, counselors and instructors.

**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](http://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 volunteers 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 3E, 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.

**General Counseling Department**
The General Counseling Department (GCD) addresses the needs of students at City College of San Francisco. Students can work with 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. Counselors make referrals to helpful support services on and off campus and provide specialized workshops including probation, transfer planning, and Internet resources. The GCD offers both express counseling for short questions, and counseling by appointment for educational plans and more complicated academic planning issues. Students 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.

**International Student Counseling Program**
Counseling services are available for International Students (F-1 Visa students). Counselors will assist new and returning 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 Program is located in MUB 101. 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 strategies that support their academic success, 7) Support students with success 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. Seeing a counselor to assist with course selection
5. Registering for classes

City College of San Francisco offers counseling services at the following locations: Ocean Campus, Civic Center, Chinatown, Downtown Center, Evans Center, John Adams Center, Mission Center, and Southeast Center.

The Ocean Campus office is open Monday - Friday. To reach the Campus please call (415) 452-3942 for current hours. Call the main switchboard at (415) 452-3000 for other locations' counseling department numbers and contact each location 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](http://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 General 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 Counseling Program The Career Center (part of the General Counseling Department) 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. For a full description of the Career Center and its services online, visit the website: www.ccsf.edu/CareerCenters.

Help for Non-Majors (Undecided) or Career Changers: Students 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. Through individual or group counseling, career assessment and exploration, labor market information, career workshops and career success courses (LERN 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.

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 lab classes 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 Center locations: one on the Ocean Campus in Batmale Hall, Room 231, and the other at the John Adams Center, 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 campus, John Adams, Mission and Chinatown centers. DSPS services are also available at other centers 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 Center is in Room 106, (415) 561-1001 (voice) or (415) 561-1007 (TDD). To reach the Mission Center DSPS office in Room 161, call (415) 920-6038. To reach the Chinatown Center DSPS in Rm 104, call (415) 395-8606. 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 Ocean and John Adams office hours please visit the DSPS website at www.ccsf.edu/dsp. Should you have questions or encounter difficulty regarding access, please contact the DSPS Accommodations Specialist at (415) 452-5481.

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 tutoring, priority registration, orientation to college, financial aid advising, book services, transfer workshops, and CSU 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 injuries, 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 basis 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 test anxiety. Appointments can be scheduled at the Student Health Center (HC 100), 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 Infection) 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 Ocean 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 facilitate 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: UC Davis, UC Irvine, UC Merced, UC Riverside, UC San Diego, UC Santa Barbara, UC Santa Cruz, St. Mary’s College, and University of the Pacific. 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.**

CCSF has this program with Mills College in Oakland and the University of California, Berkeley to provide qualified students the opportunity to experience courses at these institutions. The Mills College program’s eligibility requirements are completion of 12 units of CSU or UC transferable course work with a minimum 2.0 gpa, eligible for, enrolled in, or have completed English 1A, and students must be enrolled in 12 units (including the Mills course) during the semester of participation. Students may take one course per semester for a total of four. The UC Berkeley program’s eligibility requirements are completion of 20 UC transferable units with a minimum 2.4 gpa, eligible for, enrolled in, or have completed English 1A, and students must be enrolled in 12 units (including the UCB course) during the semester of participation. Students may take one course per semester for a total of two. Call 415-239-3334 for more information or visit the Transfer Center in Science Hall 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 by: 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 only available at the Orfalea Family Center at the Ocean Campus. Parents can learn about how to enroll their children by calling (415) 561-1895. The Department also features Parent/Child Observation courses at 13 sites throughout the city for parents who wish to participate in adult education opportunities with their children. For further information on specific Child Observation classes operated by the Department, please call the non-credit office at the Orfalea Family Center, Room 203, (415) 452-5905 or the main office at Ocean Campus.
Lactation Center
The Child Development & Family Studies Dept. operates "Effie's Room" in the Orfalea Family Center (OFC 200) on the Ocean Campus. The room provides access to new breastfeeding 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) 452-5355.

Math Bridge Program
The purpose of this two-semester program is to assist students in the successful completion of transfer-level statistics and to increase the number of transfers to baccalaureate colleges and universities. The program targets African American, Latino, Filipino, and Native American students, however, all students are welcome to apply.

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

Math Bridge is not a remedial program. The program provides City College students an opportunity to take Preparation for Statistics (MATH 45) and Probability and Statistics (MATH 80) in a cohort community, with attention to affective issues that often impact students’ success in math courses.

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.

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 LGBTQQQI (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 LGBTQQQI 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
Learning Resources and Student Services

Learning Resources and Student Services offer 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

The Veterans Center is located in Cloud Hall, room 333. The Veterans Resource Center is located next door in Cloud Hall, room 332. Please go to the college website at www.ccsf.edu for more information about Veterans Services.

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

Please inquire at the VA Web site (www.gibill.va.gov) or at the Veterans Educational Benefits Office for further details regarding benefits.

Eligible disabled veterans may qualify for Chapter 31 Vocational Rehabilitation Benefits. Disabled veterans are encouraged to contact the main DVA Regional Office for more information at 1-800-827-1000.

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 educational benefits must be submitted and addressed to the Dean overseeing the Veterans Benefits Office. 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

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 prior 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.

Graduation Requirements Chart
# Associate Degree Graduation Requirements Overview

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<th>Option 1: CCSF Associate Degree</th>
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<tr>
<td>Associate in Arts (AA)</td>
<td>Associate in Arts for Transfer (AA-T)</td>
</tr>
<tr>
<td>or Associate in Science (AS)</td>
<td>or Associate in Science for Transfer (AS-T)</td>
</tr>
</tbody>
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## 1. General Education
- Completion of City College of San Francisco General Education pattern, Areas A-H.
- 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).
- Advisory Note: Students transferring to CSU are strongly encouraged to complete the CSU American Institutions and U.S. History requirement.

## 2. Mathematics
- Satisfactory math placement score, or completion of an approved math course, or satisfactory score on SAT, ACT, or Advanced Placement (AP) exam.
- Completion of Area B4 of the CSU General Education pattern, or Area 2 of the IGETC pattern.

## 3. Major
- 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.
- Completion of an AA-T or AS-T program as specified by the department.

## 4. Units
- A minimum of 60 semester units of degree applicable courses.
- A minimum of 60 semester units that are both degree applicable and CSU transferable.
- Advisory Note: Students planning to transfer to UC must have 60 UC-transferable units to meet UC Admission requirements.

## 5. Grade Point Average
- Cumulative grade point average of at least 2.0, including a grade of C or higher in each course taken towards the Major Requirement.

## 6. Residence
- 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.

**Petitioning for the Associate Degree**
- Submission of a Petition for Graduation Form to the Office of Admission and Records by the deadline.
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 satisfaction 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 has earned that credit in conformance with the College regulations governing credit granted in this manner.

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
Economics 5
Engineering 38
Engineering Technology 50, 108A, 108B
English as a Second Language 79
French 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 10A, 10B, 10C, 10D, 10E, 11A, 11B, 21, 22
German 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 11A, 11B
Interdisciplinary Studies 50
Italian 1, 1A, 1B, 2, 2A, 2B, 3A, 3B, 4A, 4B, 10A, 10B, 10C, 10D, 15A, 15B
Japanese 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 16
Journalism 19, 26
Labor and Community Studies 76A
Learning Assistance 50, 60, 61*, 62*
Library Information Technology 51
Mathematics 40, 50, 55, 60, 70, 75, 80, 90, 92, 95, 97, 100A, 110A
Microcomputer Applications for Business 160
Multimedia Studies Program 125
Music 3A, 29
Philosophy 2, 4, 12A, 40
Pilipino 1, 2, 10A, 10B, 10C
Psychology 5
Russian 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 10A, 10B, 10C, 10D, 15A, 15B, 20, 21, 21A, 21B, 22, 22A, 22B
Spanish 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 5, 5S, 7, 10A, 10B, 10C, 10D, 31, 31A, 31B, 32
Speech 1A, 3, 4, 6, 11, 12, 20
Supervision and Business Management 234

*Only partially satisfies number of units required for this area

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
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
- 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
- Physical Science 11
- Physics 2A, 4A, 10, 40, 41
- Physiology 1, 12, 67
- Sustainability 31
- 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 feelings are culturally conditioned.
4. compare how societies and social subgroups operate.

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, 8, 11, 12, 15, 20, 25
- Asian American Studies 5
- 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, 97, 221, 231
- Interdisciplinary Studies 7, 17, 28G, 29, 30, 37, 45, 80A*, 80C*, 80D*, 80E*, 80F*, 80G*, 81B*
- Latin American and Latino/a Studies 1, 9, 10, 11, 13, 14, 15
- 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.

**Area E: Humanities Requirement**

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

1. exhibit an understanding of the ways in which people through the ages in various cultures have created art.
2. demonstrate an aesthetic understanding.
3. make informed value judgments.
4. create an example of linguistic expression or philosophical reasoning.
5. contribute to the disciplines of fine and performing arts and analytical or creative writing.

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

- African American Studies 35, 50, 51, 55
- American Civilization 11A, 11B
- Architecture 31A, 31B, 32
- Art 101 through 109, 116, 118, 123, 124, 125A, 126, 130A, 140A, 146A, 160A, 170A, 180A
- Asian American Studies 6, 10, 20, 30
- Asian Studies 11, 12
- Broadcast Electronic Media Arts 103, 106
- Cinema 18, 20A, 20B, 21, 22, 23A
- Classics 35
- Dance 30, 32
- Design 101, 105, 110
- Fashion 23
- French 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 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
- Graphic Communications 21
- Humanities 7, 8, 11, 12, 20, 25, 35, 41A, 41B, 48
- Interdisciplinary Studies 4, 14, 23, 27A, 27B, 29, 30, 36, 38, 42, 44, 46, 47, 70
- Interior Design 138
- Italian 1, 1A, 1B, 2, 2A, 2B, 3A, 3B, 4A, 4B, 10A, 10B, 10C, 10D, 15A, 15B
- Japanese 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 16, 39, 49
- Labor and Community Studies 93A, 104A
- Latin American and Latino/a Studies 1, 14
- Lesbian/Gay/Bisexual/Transgender Studies 11, 12, 15, 18, 20, 25, 55, 77
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/sexual 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
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

Area H2 (Women’s Studies)

Philippine Studies 30
Philosophy 2, 4, 25A, 25C
Photography 50A, 50B
Pilipino 1, 2, 10A, 10B, 10C, 39A, 39B
Spanish 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 5, 5S, 7, 10A, 10B, 10C, 10D, 31A, 31B, 32, 41
Speech 5, 37, 38
Theatre Arts 30, 31, 32, 150, 152, 163
Women’s Studies 10, 20

Area G: Health Knowledge (G1) and Physical Skills (G2) Requirement

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

1. examine, summarize, and evaluate health information essential for mental and physical well being.
2. examine, summarize, and evaluate American government political precedent
3. examine and understand the importance of participating in civic duties and responsibilities based on historical and political precedent.

To satisfy the graduation requirement in United States History and Government, the student must complete at least three semester units from the following courses.

African American Studies 60
American Civilization 11A, 11B
Asian American Studies 20
Economics 10
History 1, 9, 12A, 12B, 17A, 17B, 21, 41A, 41B, 45
Labor and Community Studies 70, 70A, 70B
Latin American and Latino/a Studies 1
Political Science 1, 46

Area G: Health Knowledge (G1) and Physical Skills (G2) Requirement

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

1. examine, summarize, and value health information essential for mental and physical well being.
2. examine, summarize, and value the physical skills essential for mental and physical well being.

To satisfy the graduation requirement (1–3 units) in Physical Skills and Health Knowledge a student must complete one course from area G1 and one course from area G2. If in fulfilling this requirement a student selects courses which total more than three units, the additional units may be counted towards the 60-unit graduation requirement.

Area G1
Anatomy 14
Culinary Arts and Hospitality Studies 244
Health Education 10, 25, 27, 33, 35, 48, 53, 54, 97, 221
Interdisciplinary Studies 17
Nutrition 12, 51, 52
Physical Education 6, 14

Area G2
Dance 34A, 100A–200
Fire Science 17
Health Education 12, 14, 17, 18, 21, 41, 67, 68
Labor and Community Studies 101
Physical Education 2, 60–300
Physical Education Athletics 60–100
Psychology 9, 17
Women’s Studies 55
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
Economics 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
   Avionics-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 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
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
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.

Advisory Note: Students planning to transfer to UC must have 60 UC-transferable units to meet UC Admission requirements.

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 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
US 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:

Anthropology
Communications Studies
Computer Science (pending state approval)
Early Childhood Education (pending state approval)
English
History (pending state approval)
Mathematics (pending state approval)
Psychology
Sociology
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 specified in the general education requirements described above.

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.

6. **Residence Requirement**
   
   The student may satisfy the residence requirement for graduation by completing at least 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 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 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
Associate Degree Graduation Requirements

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
### 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 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.
- 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 2012–13. The new 2013–14 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
  Chemistry 32, 40, 101A, 101B, 103A, 110, 205, 208A, 208B, 212A, 212B
  Geography 1

- **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 9
  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
Geology 11L
Oceanography 1L
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

- **C2 Literature:**
  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**

- **C3 Foreign Language:**
  (9 certifiable semester units or 12–15 quarter units with at least one course from each of C3A, C3B, and C3C)

  C3A Languages:
  Arabic 1, 2, 2A, 3
  Chinese 1, 2, 2A
  French 1, 2, 2A, 3
  German 1, 2, 2A
  Italian 1, 2, 2A
  Japanese 1, 2, 2A
  Korean 1, 2, 2A
  Portuguese 1, 2, 2A
  Spanish 1, 2, 2A

  C3B Literature:
  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**

- **C4 Philosophy:**
  (9 certifiable semester units or 12–15 quarter units with at least one course from each of C4A, C4B, and C4C)

  C4A Philosophy:
  Philosophy 1, 12
  Psychology 1B
  Zoology 10

  C4B 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

  C4C Languages:
  Arabic 1, 2, 2A, 3
  Chinese 1, 2, 2A
  French 1, 2, 2A, 3
  German 1, 2, 2A
  Italian 1, 2, 2A
  Japanese 1, 2, 2A
  Korean 1, 2, 2A
  Portuguese 1, 2, 2A
  Spanish 1, 2, 2A
Transfer Information

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, 30
Broadcast Electronic Media Arts 106
Chinese 1, 1A, 1B, 2, 3A, 3B, 4, 4A, 4B, 10A, 10B, 10C, 10D, 12A, 12B, 12C, 14A, 14B, 14C, 16, 17, 22, 29A, 29B, 31A, 31B, 39, 49
Cinema 20A, 20B, 21, 22
Classics 35
French 1, 1A, 1B, 2, 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
Sustainability 31

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
Asian Studies 20
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, 8, 11, 12, 15, 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, 107, 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
Asian American Studies 35
Economics 25
History 12A, 12B, 45
Labor and Community Studies 78A, 78B, 78C
Lesbian/Gay/Bisexual/Transgender Studies 5, 10, 21, 30, 50, 60
Psychology 25
Sociology 25
Women's Studies, 25, 54

D5 Geography
Geography 4, 7

D6 History
Asian American Studies 20
Economics 10
Interdisciplinary Studies 100A
Labor and Community Studies 70, 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
Geography 31
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)
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 21, 24, 40, 70
Physical Education 2, 14, *200A-202*, *204A-278*
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 2012 – 13):
Academic Achievement Personal Success 103
Administration of Justice 52, 57, 67
African American Studies +10, 30, 35, 40, 50, 51, 55, 60, 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, 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

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 Geography 31, Sustainability 31
   **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 *11, **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, ^4A, ^4AB, 16, 17, 22, 29A, 29B, #31A, #31B, 39
   *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, 150

   *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

Dance 30, 32, 33, *34A, *37, 100A, 101ABC, 102ABC, 107ABC,
   *108ABC, 109AB, 110AB, 111A, 120ABC, 121B, 122, 125ABC, 126B, 127, 130ABC, 132ABC, 135AB, 136, 137ABC, 140AB,
   #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, 6, +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

   #Any or all of these courses combined: maximum credit, 4 units

   #Any or all of these courses combined: maximum credit, 4 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
   **20A is equivalent to 1: maximum credit, 6 units;
   **20B 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, #31, +41A, *110
   #Same as GIS 110
   #Same as GEOG 110
   #Same as GEOL +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, 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
+Independent Study/Variable Topics courses — to be reviewed for credit by UC campus upon transfer

*11, 12, 41A and 41B combined: maximum credit allowed, two courses

Independent Study
*Please note that the transfer credit for courses of this kind is contingent upon an evaluation of the course outline by a University of California campus.

Interdisciplinary Studies 4, 7, 9, 10D, 14, 17, 23, 27A, 27B, +27C,
+28(A–F), 28G, 29, 30, 36, 37, 38, 40, 42, 44, 45, 46, 47, ^50, 100A, 170
*Same as Biology 32
+Independent Studies/Variable Topics course -- reviewed by UC campus upon transfer
^Same as LERN 50

*1AB is equivalent to 1: maximum credit, 6 units;
+2AB is equivalent to 2: maximum credit, 6 units;

Japanese *1, *1A, *1B, +2, +2A, +2B, #3, #3A, #3B, **4A, **4B, 39
*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

Journalism 19

Labor and Community Studies ^15, 70A, 70B, *93C, **98A, #98B,
+98C, 100
^Same as LALS 15
**Same as MUS 48A
#Same as MUS 48B
+Same as MUS 48C

Latin American/Latino/a Studies 1, *9, 10, 11, #13, 14, ^15, *70
*Independent Study course -- to be reviewed for credit by UC campus upon transfer
*Same as LGBT 9
^Same as LBCS 15
#Same as POLS 13

Learning Assistance ^50, 60
*Same as IDST 50

Lesbian/Gay/Bisexual/Transgender Studies 5, #9, *11, *12, 15, 18, 20,
25, 30, 50, 55, 60, 70, 75, 77
*11 and 12, CIINE 20A, 20B combined: maximum credit allowed, two courses
#Same as LALS 9

Library Information Skills 10

Mathematics 70, ^75, +80, **90, *97, **100A, 100B, *110A, *110B,
*110C, 115, #120, #125, #130
^No credit for 75 if taken after 100A or 110A
+80 combined with Economics 5 and Psychology 5: maximum credit, one course
**90 and 97 combined: maximum credit one course
*110ABC combined with 100A-B: maximum credit allowed, one series

Microbiology (See Biological Sciences)
Multimedia Studies 125

Music 1A, 1B, 2A, 2B, 2C, 2D, 3A, 3B, *4, 5A, 5B, 6A, 6B, 7C, 7P, 7T,
7V, 7W, 8A, 8B, 9A, 9B, 9C, 10A, 10B, 11, 12, 13A, 13B, 14, 15, 16,
17, 18, 19, 20, 21, 22A, 22B, 22C, 23, 24, 25, 26, 27A, 27B, 27R,
27T, 28, 29, 30, 41, 42, 44, 45, 46, ^47, **48A, ++48B, #48C, 50
*No credit for 4 if taken after 1A or 3A
47, Health 50, (*) Dance, (*) Physical Education and (*) Physical Education Athletics courses combined: maximum credit, 4 units
**MUS 48A same as LBCS 98A
++MUS 48B same as LBCS 98B
#MUS 48C same as LBCS 98C

Nutrition (See Biological Sciences)
Oceanography 1, 1L
Ornamental Horticulture 50, *76, *77
*76 and 77 combined: maximum credit, one course

Paleontology 1

Paralegal Studies 10

Philippine Studies *10, 20, 30 (See also Pilipino courses)
*Independent Study course — to be reviewed for credit by UC campus upon transfer

Philosophy 2, 4, 12A, 12B, 25A, 25C, 40

Photography 50A, 50B, 51

Physical Education *2, 6, +7, 13, *14, +40, +41, +42, +43, +45, +46,
*Any or all of these courses, Music 47, Health 50, (*) Dance, (*)
Physical Education and (*) Physical Education Athletics courses combined: maximum credit, 4 units
+Any or all of these courses combined: maximum credit, 8 units,
*14, and (*) HLTH courses combined: maximum credit, one course
++Maximum credit, two courses

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

Physical Science *11, 11L
*No credit if taken after a college course in Astronomy, Chemistry, Geology or Physics

*4D, 4DL, *10, 10L, *40, #41
*2A–2B combined with 4ABC: max. credit, one series; Deduct credit for duplication of topics; No credit for 10 if taken after 2A or 4A
#40 and 41 combined: maximum credit allowed, one course; no credit for 40 or 41 if taken after 2A or 4A

Physiology (See Biological Sciences)

Pilipino 1, 2, 39A, 39B (See also Philippine Studies)

Political Science 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, *13, 18, 22, 35, +41,
+41A, +42B, +42C, +42D, 43, 45, *46, 47, 48
*No credit for 46 if taken after 1
+Variable Topics course — to be reviewed for credit by UC campus upon transfer
#Same as LALS 13

Psychology 1, 1B, 2, *5, 10, 11, 21, 23, 25, 40, +41, +42, +43
*5 combined with Economics 5 and Mathematics 80: maximum credit allowed, one course
+Variable Topics course — to be reviewed for credit by UC campus upon transfer

Transfer Information 61
IGETC can be fully certified, though IGETC may now be partly preparation. The IGETC but must be careful to complete all lower division major entering “high unit” majors, such as those in the sciences, can follow engineering majors (at any UC campus) to use the IGETC. Students in general, it is not advisable for transfer students preparing for IGETC pattern may petition for a Certificate of Achievement. Campus general education requirements. Students completing the 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 1B, 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

Humanities:
   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, 30
   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, 4L
Latin American and Latino/a Studies
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, 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; LGBT 50;
4D-Gender Studies: ASAM 35; HIST 45; LGBT 5, 30, 50, 60; WOMN 25
4E-Geography: GEOG 4, 7
4G-Interdisciplinary: AMS 5; ASIA 1; BIO 31; CDEV 53, 67; GEOG 31; HLTH *10, *231, IDST 10D, 17, 28G, 30, 37, 100A; LALS 15; LBCS 15; PHST 20; SPCH 5; SUST 31
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 (2) courses, one Physical Science course and one Biological Science course: must include at least one Laboratory Activity; 7-9 semester units. (9-12 quarter units)

Physical Sciences
Astronomy 1, 17, 18, 19, 20
Chemistry 40, 101A, 101B, 103A, 110, 205, 208A, 208B, 212A, 212B
Geography 1
Geology 10, 11, 18, 30
Oceanography 1
Paleontology 1
Physical Science 11
Physics 2A, 2B, 4A, 4B, 4C, 4D, 10, 40, 41

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

Anatomy 14, 25
Astronomy 16
Biology 9, 11, 32L, 41L, 100A, 100B
Botany 10
Chemistry 40, 101A, 101B, 103A, 110L, 205, 208A, 208B, 212A, 212B
Ecology 20
Genetics 11
Geography 1L
Geology 10L, 30L
Microbiology 12
Oceanography 1L
Paleontology 1
Physical Science 11L
Physics 2AL, 2BL, 4AL, 4BL, 4CL, 4DL, 10L
Physiology 1, 12
Zoology 10

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.

3. Satisfactory score in the SAT II: Subject Test in languages other than English.
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. A passing grade 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.

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<td>PSY 150</td>
<td>PSYC 1B</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 130</td>
<td>SOC 35</td>
</tr>
</tbody>
</table>
PROGRAMS AND COURSES
**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 requirements 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 advisor 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 instead of 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 452 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: ASAM 61-62-63 combined, maximum 15 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
with public and private agencies concerned with maintaining public needs of three groups of students: those who plan to seek employment

The curriculum in administration of justice is arranged to meet the degree curriculum following is a description of the program.

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 C-ID 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.cccs.cc.ca.us/ 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

Administration 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 21 units receive the Associate in Science Degree in Administration of Justice.

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 Achievement in Forensic Identification, Probation and Parole, Juvenile Procedures, Criminal Investigation, Criminal and Constitutional Law, High School Pathway to the Administration of Justice Profession, Trauma Prevention and Recovery, and the Certificate of Accomplishment in Diversity and Social Justice.

Learning Outcomes

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

• Interpret the scope and source of criminal law, its origin and development, and various constitutional safeguards and allocations of legislative authority between Federal and State governments
• Recognize the various forms which evidence can take and in which it is presented as a medium of proof in court
• Discuss the United States Constitution, Amendments to the Constitution and the Bill of Rights and their interaction on crime and individual rights
• Develop and demonstrate the ability to apply the theory, techniques and knowledge gained in the total course work of the law enforcement curriculum in a positive manner
• Analyze crime and contemporary law enforcement issues
• Discuss the interrelationships and role expectations among administration of justice agencies and the public
• Explain the issues of terrorism, terrorist tactics, terrorist ideology, and terrorist threats to the public safety
• Work in a local criminal justice agency under the supervision of employees currently working in the field
• Successfully compete for employment positions in which they can apply legal, investigative, communicative and written skills acquired in the administration of justice program

Courses Required for the Major in Administration of Justice

Students must select a minimum of 21 units from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 51 Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 52 Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 53 Legal Aspects of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 54 Prin and Proc of the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 57 Intro to the Admin of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 59 Organized Crime and Gangs</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 62 Criminal Investigation</td>
<td>3</td>
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<tr>
<td>ADMJ 63 Criminal Identification</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 64 Community Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 65 Narcotic Investigations</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 66 Physical Evidence and Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 67 Terrorism and Counterterrorism</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 68 Criminal Justice Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 70A Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 80 Parole and Probation Sys</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 82A Criminal Justice Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 85 P.C. 832 Police Reserve Training</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

Recommended Electives: ASIA 20; F SC 17, F SC 62; LALS 10, 11; LBCS 94D; PE 29; PHIL 12A, 40; POLS 1, 12, 43; PSYC 1, 4, 22, 23; SOC 1, 2, 30; SPCH 12; CDEV 100; IDST 47; HLTH 38, HLTH 48; WOMN 54, and 3 units from electives CDEV 72, 78, 101; HLTH 9A, 63, 73, 76, 83, 90C, 98, 103, 116; IDST 12; LBCS 81, LERN 63, 68; PSYC 15, 61, 62, 63; SOC 51; TH A 161, WOMN 20, WOMN 55 (part of the Trauma Prevention and Recovery Certificate); IDST 80A, C, D, E, F, G and 81A, B (part of the Certificate of Accomplishment in Diversity and Social Justice)

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>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 51 Juvenile Procedures</td>
<td>3</td>
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<tr>
<td>ADMJ 52 Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 53 Legal Aspects of Evidence</td>
<td>3</td>
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<tr>
<td>ADMJ 54 Prin and Proc of the Justice System</td>
<td>3</td>
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<tr>
<td>ADMJ 57 Intro to the Admin of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 59 Organized Crime and Gangs</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 62 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 63 Criminal Identification</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 64 Community Relations &amp; Policing</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 65 Narcotic Investigations</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 66 Physical Evidence and Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 67 Terrorism and Counterterrorism</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 68 Criminal Justice Report Writing</td>
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<td>3</td>
</tr>
<tr>
<td>ADMJ 85 P.C. 832 Police Reserve Training</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units Required</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Criminal and Constitutional Law Certificate

This certificate will provide a strong foundation regarding citizen’s criminal and civil “rights” under the United States Constitution. Students will learn about the Penal Code and other criminal statutes as well as their relationship to protections provided by the Constitution. Courses will include analysis of legal cases and legal principles, which protect individual freedom and their relationship to civil rights and civil liberties. Students will review the court system, procedures from incident to final disposition in the criminal justice system, and principles of civil law with constitutional, federal, state and local emphasis as they apply to and affect law enforcement.

Learning Outcomes

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

• Measure the impact of Supreme Court decisions on every day use of criminal and civil law.
• Apply principles of the California Penal Code
• Assess the principles of Constitutional Law
• Discuss the Federal and State court structure; the Bill of Rights of the United States Constitution; the kinds of evidence, and the rules governing the use of evidence in court.
• Identify and explain the legal problems relating to obtaining confessions and admissions; the content and use of the Miranda warning, and the presentation of such declaration in court.

• Compare and contrast constitutional issues involved in searches and seizures related to the Fourth Amendment.

• Illustrate the authority of peace officers to detain and arrest.

• Identify the various types of law-statutory, civil and criminal case.

• Discuss First Amendment rights and limitations.

• Perform as well-informed laymen who are aware of their rights and who have the intelligence and understanding to seek adequate legal guidance when necessary.

• Evaluate the variables of race and ethnicity and politics.

Students must complete each course with a grade of C or higher. Where applicable, grades of Pass may be used. Students must complete 5 of 7 courses at City College of San Francisco.

Courses Required for the Certificate of Achievement in Criminal and Constitutional Law

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>ADMJ 52 Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 53 Legal Aspects of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 54 Principles and Procedures of the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 62 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1 American Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 12 Ethnic Politics in the United States</td>
<td>3</td>
</tr>
<tr>
<td>POLS 43 The Constitution and Individual Rights</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total | 21 |

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>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>ADMJ 52 Concepts of Criminal Law</td>
<td>3</td>
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<tr>
<td>ADMJ 62 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 63 Criminal Identification</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>ADMJ 66 Physical Evidence</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 53 Legal Aspects of Evidence</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total Units | 15 |

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, 1st Responder, Emergency Medical Technician, and Life Safety Directors in High Rise Buildings.

Learning Outcomes

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

• Identify minimum qualifications and entry-level skills for firefighter 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**

**Course** | **Units**
--- | ---
F SC 50 Intro to Fire Science | 3-7
or F SC 110 Basic Fire Academy* | 
F SC 52A Fire Protection Equip & Sys | 3
F SC 53 Bldg Const for Fire Protection | 3
F SC 55 Wildland Fire Control | 3
F SC 57 Principles of Fire/Emergency Services; Safety and Survival | 3
F SC 61A Fund of Fire Prevention | 3
F SC 64 Fire Behavior & Combustion | 3
F SC 17/HLTH 17 Public Safety - Emergency Medical Response | 3

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

**Course** | **Units**
--- | ---
F SC 51A Fire Tactics and Strategy | 3
F SC 60 Fire Apparatus & Equipment | 3
F SC 61B Fund of Fire Prevention | 3
F SC 62 Rescue Practices | 3
F SC 70 Fire Investigation | 3
F SC 105A-F Fire Protection Work Experience | 1-3
F SC 111 Firefighter One Academy* | 11
F SC 150 Fire Service Career Preparation | 2
LBCS 94D Labor Relations in Workforce Education | 1

**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.

**Learning Outcomes**

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

• Identify, describe, and demonstrate the role of the Emergency First Responder in the Emergency Medical System, including the proper medical protocol treatment for traumatic, medical, and environmental emergencies.
• Identify fire department functions and operations, and the relationship of ordinances laws and regulations pertaining to the fire service.
• Identify the characteristics of fire, fire behavior, fire cause and origin, and the relationship to fire strategy and tactical operations in the Incident Command System.
• Identify and demonstrate the use of tools, equipment and appliances 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.
• 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, the use of the Incident Command System in wildland fires, and wildland fire safety.
• Distinguish the components of physical fitness and apply fundamental principles of each component as it relates to either firefighting or public safety performance conditioning.

Students must complete each course with a grade of “C” or higher. Where applicable, grades of Pass may be used. Students must complete 6 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**

**Core Courses** | **Units**
--- | ---
F SC 50 Intro to Fire Science | 3
F SC 17/HLTH 17 Public Safety-Emergency Medical Response | 3
PE 29 Firefighter and Public Safety Conditioning | 2
F SC 115 Incident Command System 200 | 1

**Total Units** | **11**

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 the 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 1A</td>
<td>2</td>
</tr>
<tr>
<td>F SC 68B Fire Prevention 1B</td>
<td>2</td>
</tr>
<tr>
<td>F SC 74A Training Instructor 1A</td>
<td>2</td>
</tr>
<tr>
<td>F SC 74B Training Instructor 1B</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 1A</td>
<td>2</td>
</tr>
<tr>
<td>F SC 88B Fire Command 1B</td>
<td>2</td>
</tr>
<tr>
<td>F SC 88C Fire Command 1C</td>
<td>2</td>
</tr>
<tr>
<td>F SC 72 Fire Investigation 1A</td>
<td>2</td>
</tr>
<tr>
<td>F SC 115 Incident Command System 200</td>
<td>1.0</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>
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<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

A theoretical and empirical approach to study of criminal investigation, focusing on specific challenges of criminal investigations within the San Francisco Bay Area. The student will study the principles of investigation, the investigation of specific offenses, the investigator in court, and the specialized scientific methods of crime detection. 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

ADMJ 66. Physical Evidence (3)
Lec-3
Advised: ADMJ 68 and ENGL 93 or placement in ENGL 96
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 threat 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
Prerequisite: 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 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)
Conf-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. P.C. 832 - Police Reserve Training (3)
Lec-3, lab-10 (total hrs)
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
Prerequisite: 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
Prerequisite: 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
Prerequisite: 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
Prerequisite: 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
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 communications 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
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
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 microcomputer, 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
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
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
This course is designed to enhance the communications and crisis intervention skills of the patrol officer, provide him/her new communica-
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 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 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 and 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 1 certification from the California State Fire Marshal'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
Advis: 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 fire ground 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

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 1 certification from the State Fire Marshal's Office. CSU

F SC 105A-E. Fire Protection Work Experience (1-3)
Work-5–15 P/NP available
Prereq.: F SC 50
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
Advis: 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
Advis: 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) 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 Coordination 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 command 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
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
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

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 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 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 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 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

ECON 30. Economics of the African American Community (3)
Lec-3  P/NP available
The antebellum South: its history, system of race relations, social institutions, art, and unique culture. 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 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 41A. From the African heritage to the Civil War.
HIST 41B. From the Reconstruction to the present.

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

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

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 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 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
ADVISE: 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 practi-
cal 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-
tuals, work songs, blues, jazz, gospel, opera, and symphony. Interaction
of these with traditional American and European music. CSU/UC

MUS 41. African Drumming Ensemble (1)
Lab-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

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, pat-
tterns, 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 mani-
festation 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, rou-
tines, 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.
Examination of race as a social construction, attitude formation, social
psychological principles, forms of racism and discrimination, privilege
and social power, psychological response to racism, and racial identity
development. Psycho-historical analysis of the experiences and contrib-
utions of African Americans, Asian Americans, Latino(a) Americans,
and Native Americans. 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.
Examination of race as a social construction, attitude formation, social
psychological principles, forms of racism and discrimination, privilege
and social power, psychological response to racism, and racial identity development. Psycho-historical analysis of the experiences and contributions of African Americans, Asian Americans, Latino(a) Americans, and Native Americans. Completion of a research project. UC/CSU

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**

**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.

Those who satisfactorily complete the Option in Avionics-Maintenance Technology in this curriculum and who hold the Certificate of Completion are qualified to take the Federal Communications Commission (F.C.C.) examination and meet job entry requirements of the avionics-maintenance field.

**Degree Curriculum**

The Degree Curriculum in Aircraft Maintenance Technology offers three programs of study (majors): Aircraft Powerplant Maintenance Technology, Airframe-Maintenance Technology, and Avionics-Maintenance Technology. Students who complete all courses required for the major and satisfy general College graduation requirements will receive the Associate in Science Degree. For information, call the Aircraft Maintenance Technology Department at 239-3901.

To enroll:

1. File with the Office of Admissions and Records an application for admission to City College.

2. Complete the CCSF Matriculation process: Placement testing (in Math and English/ESL), orientation, counseling

**Communication and Computation Skills.** Federal Aviation Administration (F.A.A.) regulations require that a student be able to read, speak, and understand English and perform basic computation. It is highly recommended that applicants, prior to enrolling in the Aircraft Maintenance Technology program, 1.) complete ESL 160 or English 92 with a C or higher, or placement in ENGL 93; or ESL 170; 2.) complete Math E1 or E3 or Business Math G, H or J, or be eligible for Math 40 (Elementary Algebra) through CCSF placement testing.

**Previous Aircraft Job-Related or Educational Experience.** In limited cases, and with Aircraft Maintenance Technology Department approval, previous aircraft job-related experience and training may substitute for certain course requirements. Previous job-related experience and training must be documented according to F.A.A. regulations. This experience will not guarantee a waiver to any requirements in the Department, but will usually provide the student with a greater chance of success in both training and placement in the industry.

**Special Regulations and Policies.** The Aircraft Maintenance Technology Program is regulated by the Federal Aviation Administration. As a result, all students will be issued a “Department of Aircraft Maintenance Technology Student Handbook.” Contained in the handbook are special regulations regarding attendance, performance levels, conditions of academic probation and dismissal from the program. Also included are notices concerning personal safety equipment, hand tools and supplies which the student will be responsible to purchase.

**Transfer to San Jose State University.** Although students in the Aircraft Maintenance Program generally enter industry upon graduation, for those students who may prefer to earn the Bachelor’s degree, San Jose State University offers graduates this opportunity. Those students who intend to transfer should consult a counselor at City College of San Francisco.

**Aircraft Maintenance Technology**

**Aircraft Powerplant Maintenance Technology Major (AS)**

This major is for potential AMT technicians that are interested in receiving training in aircraft powerplant maintenance. The Aircraft Powerplant Maintenance Training received at the CCSF Aeronautics Department is certified by the FAA, CFR Part 147. Some of the subject areas that are covered in the Powerplant Maintenance Training include topics such as Reciprocating Engine Overhaul, Turbine Theory and Operation, Systems such as Fuel Systems, Lubrication Systems, Ignition and Starting Systems, Troubleshooting and inspections as well as testing engines for proper operation. Students will learn the proper
nomenclature of aircraft powerplant parts and components. Upon successfully completing and passing (with at least a 70% score) in all required subject areas associated with the Powerplant Maintenance Training as well as completing and passing the General courses, the student will then qualify to take their Federal Aviation Administration exams. Once the graduating student passes all of the required FAA exams, they are qualified to work in the Aviation Industry as a FAA Certified Powerplant Technician.

**Learning Outcomes**

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

- Analyze and differentiate the various aircraft parts, components, and troubleshoot the related systems.
- Use shop safety practices related to aviation maintenance.
- Analyze and perform inspections that will determine the airworthiness of aircraft systems and components.
- Identify and perform inspections that will determine the airworthiness of aircraft systems and components.
- Calculate the volume, area, power development and cubic displacement of an aircraft reciprocating engine.
- Summarize and demonstrate the techniques utilized in overhauling an aircraft reciprocating engine.

Students must complete each course with a grade of “C” or higher.

**Courses Required for the Major in Aircraft Powerplant Maintenance Technology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
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<tr>
<td>AIRC 101 Introduction to Aircraft Maintenance</td>
<td>8</td>
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<tr>
<td>AIRC 102 Basic Electricity &amp; Electrical Systems</td>
<td>8</td>
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<tr>
<td><strong>Second Semester</strong></td>
<td></td>
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<tr>
<td>AIRC 103 Powerplant Theory &amp; Maint</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 104 Propul Powerplant Sys</td>
<td>8</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
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<tr>
<td><strong>Third Semester</strong></td>
<td></td>
</tr>
<tr>
<td>AIRC 105 Powerplant Comp</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 106 Aircraft Metal Struct</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 116 Aircraft Material Process</td>
<td>1</td>
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<tr>
<td>Additional graduation requirements</td>
<td></td>
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<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
</tr>
<tr>
<td>AIRC 107 Hydr, Pneum &amp; Cabin</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 108 Rigging &amp; Electr Sys</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 115 Aircraft Mat Proc</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>66</td>
</tr>
</tbody>
</table>

**Airframe-Maintenance Technology Major (AS)**

This major is for potential AMT technicians that are interested in receiving training in Aviation Airframe maintenance. The Airframe Maintenance training received at the CCSF Aeronautics Department is certified by the FAA, CFR Part 147. Some of the subject areas that are covered in the Airframe Maintenance Training include topics such as Assembly and Rigging, Hydraulic and Pneumatic Power Systems, Cabin Atmosphere Control Systems, Communication and Navigation Systems, Aircraft Fuel Systems, Position and Warning Systems as well as Fire Protection Systems. Students will learn the proper nomenclature of aircraft Airframe parts and components. Upon successfully completing and passing (with at least a 70% score) in all required subject areas (associated with the Airframe Maintenance Training) as well as passing the General courses, the student will then qualify to take their Federal Aviation Administration exams. Once the graduating student passes all of the required FAA exams, they are qualified to work in the Aviation Industry as FAA Certified Airframe Technician.

**Learning Outcomes**

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

- Analyze and differentiate the various aircraft parts, components, and troubleshoot the related systems.
- Perform airframe conformity and airworthiness inspections of airframe systems and components.
- Identify and select hydraulic fluids.
- Identify and demonstrate proper maintenance procedures as per specified references provided.
- Inspect, check and service landing gear position indicating and warning system.
- Inspect and repair sheet metal structures.

Students must complete each course with a grade of “C” or higher.

**Courses Required for the Major in Airframe-Maintenance Technology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
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<tr>
<td>AIRC 101 Introduction to Aircraft Maintenance</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 102 Basic Electricity and Electrical Systems</td>
<td>8</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
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<tr>
<td>AIRC 103 Powerplant Theory &amp; Maint</td>
<td>8</td>
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<tr>
<td>AIRC 104 Propul Powerplant Sys</td>
<td>8</td>
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<tr>
<td>Additional graduation requirements</td>
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<tr>
<td><strong>Third Semester</strong></td>
<td></td>
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<tr>
<td>AIRC 106 Aircraft Metal Struct</td>
<td>8</td>
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<tr>
<td>Additional graduation requirements</td>
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<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
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<tr>
<td>AIRC 107 Hydr, Pneum &amp; Cabin</td>
<td>8</td>
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<tr>
<td>AIRC 108 Rigging &amp; Electr Sys</td>
<td>8</td>
</tr>
<tr>
<td>AIRC 115 Aircraft Mat Proc</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>57</td>
</tr>
</tbody>
</table>

**Avionics-Maintenance Technology Major (AS)**

This major is for potential technicians that are interested in receiving training in Avionics maintenance. Upon successfully completing and passing (with at least a 70% score) in all required subject areas (associated with the Avionics Maintenance Training) as well as passing the required General course, the student will then qualify to receive the Avionic Completion Certificate.

In the aviation industry, tasks involved in maintaining avionic equipment encompass the installation, inspection, testing, adjusting, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space.

**Learning Outcomes**

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

- Inspect, check, and troubleshoot autopilot, servos and approach coupling systems.
- Inspect, check, and service aircraft electronic communication systems.
- Inspect, check, and service aircraft navigation systems.
- Inspect, check, and service aircraft radar beacon transponder.
- Inspect and repair antenna and electronic equipment installations.
- Inspect and repair flight management computers.

Students must complete each course with a grade of “C” or higher.
Courses Required for the Major in Avionics-Maintenance Technology

First Semester
AIRC 101 Introduction to Aircraft Maintenance ........ 8
AIRC 102 Basic Electricity and Electrical Systems ....... 8

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

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 receiving a final grade of “C” or higher in all of the following courses.

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

• Analyze and differentiate the various aircraft parts, components, and troubleshoot the related systems.
• Use shop safety practices related to aviation maintenance.
• Analyze and perform inspections that will determine the airworthiness of aircraft systems and components.
• Identify and demonstrate proper maintenance procedures as per specified references provided.
• Calculate the volume, area, power development and cubic displacement of an aircraft reciprocating engine.
• Summarize and demonstrate the techniques utilized in overhauling an aircraft reciprocating engine.

Courses Required for the Certificate of Achievement in Aircraft Powerplant Maintenance Technology

Course  Units
AIRC 101 Intro to Aircraft Maintenance ........ 8
AIRC 102 Basic Electrical Systems ................. 8
AIRC 103 Powerplant Theory & Maintenance ... 8
AIRC 104 Propul Powerplant Sys ................... 8
AIRC 105 Powerplant Comp .......................... 8
AIRC 115 Aircraft Mat Proc ............................ 1
Total Units ........................................ 41

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.

The Avionics certificate is for potential technicians that are interested in receiving training in Avionics maintenance. Upon successfully completing and passing (with at least a 70% score) in all required courses (associated with the Avionics Maintenance Training) the student will then qualify to receive the Avionics Certificate of Accomplishment.

In the aviation industry, tasks involved in maintaining avionic equipment encompass the installation, inspection, testing, adjusting, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space. The Avionics Certificate will allow the Maintenance Technician to work locally, nationally and internationally in the field of aviation.

Learning Outcomes
Upon completion of the Certificate, students will be able to:

• Inspect, check, and troubleshoot landing gear position indicating and warning systems.
• Inspect and repair sheet metal structures.

Courses Required for the Certificate of Achievement in Airframe-Maintenance Technology

Course  Units
AIRC 101 Intro to Aircraft Maintenance ........ 8
AIRC 102 Basic Elect Sys ............................ 8
AIRC 106 Aircraft Metal Struct ...................... 8
AIRC 107 Hydr, Pneum & Cabin Sys ................ 8
AIRC 108 Rigging & Elect Sys ....................... 8
AIRC 115 Aircraft Mat Proc ............................ 1
Total Units ........................................ 41

Airframe-Maintenance Technology Certificate

Requirements for the Certificate of Achievement. Students may obtain the Certificate of Achievement in Airframe-Maintenance Technology by receiving a final grade of “C” or higher in all of the following courses.

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

• Analyze and differentiate the various airframe parts, components, and troubleshoot the related systems.
• Perform airframe conformity and airworthiness inspections of airframe systems and components.
• Identify and select hydraulic fluids.
• Identify and demonstrate proper maintenance procedures as per specified references provided.
• Inspect, check and service landing gear position indicating and warning systems.
• Inspect and repair flight management computers.

Students must complete each course with a grade of “C” or higher.
Courses Required for the Certificate in Avionics-Maintenance Technology

Course Units
AIRC 101 Avionics Comm Navig .............................. 7
Total Units .......................................................... 7

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  
ADVISE: 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 maintenance 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  
ADVISE: 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 ofaviation 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  
Familiarization with most recent industry testing requirements for technicians in maintaining F.A.A. airworthiness standards. CSU
**American Sign Language**

Office: Art 202  
Phone number: (415) 239-3223  
Web Site: www.ccsf.edu/forlang

**Learning Outcomes**

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

- Understand the main points of standard signing on familiar matters encountered in work, school, leisure, etc.
- Understand and respond to signed dialog which consist mainly of high-frequency everyday language.
- Understand and respond to most situations likely to arise while interacting with people using American Sign Language (ASL).

**Announcement of Courses**

Credit, Degree Applicable Courses:

AMS L 1A-1B. Elementary American Sign Language (3-3)  
Lec-3  
P/NP available  
Prereq.: For AMSL 1B: AMSL 1A OR demonstration of AMSL 1A exit skills  
Everyday communication emphasizing vocabulary and syntax; finger spelling to enable students to communicate with the deaf in a culturally appropriate manner on an elementary conversational level. CSU/UC

- Integrate basic social sciences approaches and methodologies and their application to course topics.
- Distinguish the functions of different forms of artistic and literary expression in American social, cultural and political forces, issues and ideas.
- Demonstrate an ability to discuss major historic, literary, artistic, and social movements in the United States.
- Evaluate information in primary sources.

**Anthropology**

Office: Batmale 354  
Phone number: (415) 239-3433  
Web Site: www.ccsf.edu/behavior

**Anthropology Major (AA-T)**

Associate of Arts in Anthropology Transfer. The program is designed to prepare students who wish to transfer to pursue studies in anthropology. It is STRONGLY advised that potential majors meet with the Behavioral Sciences Chair to discuss educational goals, course options and transfer issues.

**Learning Outcomes**

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

- Contrast the major contemporary theoretical perspectives in the four major subfields
- Critically analyze and interpret anthropological data
- Apply the methods of cross-cultural comparison and the concept of cultural relativism to past and present cultures

**Courses Required for the Major in Anthropology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1 Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2 Archaeology and Prehistory</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3 Introduction to Social and Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3AC Introduction to Cultural Anthropology: Focuses on American Culture 3</td>
<td></td>
</tr>
</tbody>
</table>

Choose ONE class from the following options:

- ANTH 4 Introduction to Linguistic Anthropology . . . . . . 3
Introduces basic concepts of cultural anthropology through the study of cultures from at least three of the five 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)
Lec-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 8. Visions of the Sacred (3)
Lec-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)
Lec-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)
Lec-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)
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

ANTH 20. LGBT Anthropology (3)
Lec-3 P/NP available
The roles and statuses of homosexuals and other sexual minorities in world cultures, with examples from Native America, the Middle East, Africa, South America, Asia, and Europe. Aspects of culture that affect the lives of sexual minorities, including economics, religion, kinship, marriage, and gender roles, will be examined. CSU/UC

ANTH 21. Archaeology of the Bay Area (Prehistoric) (1)
Lec-1, field trips P/NP available
Not open to students who have completed ANTH 41E.
Examination of the archaeological record created by the native American people who first populated the San Francisco Bay Area. Cultural remains and artifacts recently excavated from the Presidio, Mission Dolores, the Financial District, south of Market, and other sites will be considered to ascertain how these people lived, worked and interacted. CSU
ANTH 22. Bay Area Archaeology (1539-1846) (1)
Lec-1, field trips  P/NP available
Examination of the archaeological record left behind by the early Spanish, Russian and Mexican explorers and settlers in the San Francisco Bay Area. Emphasis is placed on artifacts, sites, and material culture to understand sociocultural organization and acculturation. CSU

ANTH 25. Culture, Gender and Sexuality (3)
Lec-3  P/NP Available
This course explores how women and men express their gender and sexuality in various cultures around the world. Focuses on women and men in non-Western cultures such as Native American, African and Asian societies. Discusses relationship of gender to aspects of culture such as kinship, economics, politics, and religion. UC/CSU

Apprenticeship
Office: Evans
Phone Number: (415) 550-4453
Web Site: www.ccsf.edu/Campuses/Evans/Apprenticeship

Announcement of Curricula
General Information
Apprenticeship is a workforce training concept, which is designed to prepare individuals, generally high school graduates, 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.

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.

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Occupation</th>
<th>Prog. Yrs.</th>
<th>Class Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPR 9710</td>
<td>Meat Cutting Appr</td>
<td>1</td>
<td>144</td>
</tr>
<tr>
<td>APPR 9713</td>
<td>Plastering Appr</td>
<td>4</td>
<td>576</td>
</tr>
<tr>
<td>APPR 9714</td>
<td>Plumbing Appr</td>
<td>5</td>
<td>1080–1296</td>
</tr>
<tr>
<td>APPR 9715</td>
<td>Refrig/Air Con Appr</td>
<td>5</td>
<td>1080–1296</td>
</tr>
<tr>
<td>APPR 9721</td>
<td>Steam Fitting Appr</td>
<td>5</td>
<td>1080–1296</td>
</tr>
<tr>
<td>APPR 9716</td>
<td>Roofing/Waterproofing Appr</td>
<td>3.5</td>
<td>378</td>
</tr>
<tr>
<td>APPR 9720</td>
<td>Strny Engin Appr</td>
<td>4</td>
<td>670–864</td>
</tr>
</tbody>
</table>

Persons interested in seeking apprentice status and enrollment in apprenticeship “related training” classes listed in the catalog should contact the State of California Department of Industrial Relations, Division of Apprenticeship Standards of the local sponsoring joint apprenticeship committee.

For further information, please call the CCSF Apprenticeship Program at (415) 550-4453.

Learning Outcomes
Upon completion, students will be able to:
- Identify, describe, and demonstrate safety practices related to their specific work requirements in compliance with CAL OSHA and EPA Regulations.
- Explain, demonstrate, and utilize the basic elements of industrial machinery and basic tools related to their trade.
- Analyze, interpret, and apply concepts, measurements and codes related to their trade.
- Apply problem-solving and analytical thinking skills in the maintenance, operation, testing, troubleshooting and repairs of equipment related to their trade.
- Understand green technologies language according to (MITC)-the Minimum Industry Training Criteria, as it relates to their Trade.

Announcement of Courses
Credit, Degree Applicable Courses:
APPR 151. Auto Body/Fender Apprenticeship, A,B,C,D,E,F,G,H. (3) Lec/lab-6, field trips
PREREQ.: 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. Steamfitter 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.

**Journeyperson**

**Credit, Degree Applicable Courses:**

**Stationary Engineers**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRYN 106</td>
<td>High Rise Fire Safety Director</td>
<td>1.5</td>
<td>P/NP available</td>
</tr>
<tr>
<td>JRYN 107</td>
<td>Air Conditioning - Refrigeration I</td>
<td>54 hrs</td>
<td></td>
</tr>
<tr>
<td>JRYN 108</td>
<td>Air Conditioning - Refrigeration II</td>
<td>54 hrs</td>
<td>JRYN 107</td>
</tr>
<tr>
<td>JRYN 109</td>
<td>Backflow Prevention and Cross-Connection Control</td>
<td>54 hrs</td>
<td>JRYN 104</td>
</tr>
<tr>
<td>JRYN 110</td>
<td>Boiler Operation and Maintenance</td>
<td>54 hrs</td>
<td></td>
</tr>
</tbody>
</table>

**Noncredit Courses:**

**Stationary Engineers**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRYN 106 = F SC 106</td>
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</tbody>
</table>

**JRYN 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.

**JRYN 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.

**JRYN 9708. Computers II (54 hrs)**
Prereq.: JRYN 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.

**JRYN 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.

**JRYN 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.

**JRYN 9711. Controls II (54 hrs)**
Prereq.: JRYN 9710
Continuation of JRYN 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.

**JRYN 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 the building HVAC systems, electronic access and fire alarm systems. Hands-on diagnostics of systems.

**JRYN 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 prob-
lems. 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 com-
bination of classroom instruction and simulated "hands-on" exercises
to familiarize Engineers with all aspects of proper handling of hazard-
ous 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 qual-
ity 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 sys-
tems an related training, stationary engineers acquire a broad base of
practical and theoretical knowledge that leads to complete understand-
ing 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 organiza-
tional, 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/acetylene (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 lock-
smithing 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 facil-
ity. 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 inten-
sive, 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, uninter-
ruptible 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 train-
ing 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.
Architecture
Office: Batmale 244
Phone Number: (415) 452-5293
Web Site: www.ccsf.edu/arch

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)
This program will prepare students in areas of design, technology, digital skills, drawing, delineation and rendering, structures, history and professional practice.

Students who wish to transfer to a 4 or 5 year degree program should understand that each transfer institution has its own set of transfer requirements. Those different requirements can be found on the individual transfer institution’s websites. Students are strongly urged to speak with architecture program faculty if they need assistance on understanding transfer requirements.

Graduates of the Associates Degree in Architecture may choose to enter directly into the marketplace and 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 course of study.

Learning Outcomes
Upon completion of this degree, students will be able to:

- Create architectural solutions to a set of project requirements.
- Develop architectural graphics using digital and analog tools that communicate design intentions and document construction requirements.
- Compare exemplary historical examples of architecture as impacted by social, political, economic, and environmental factors.
- Explain the duties and responsibilities of stakeholders within the legal and regulatory environments.
- Identify building and material systems that are responsive to the major requirements of a project.

Courses Required for the Major in Architecture

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester (fall)</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,</td>
<td></td>
</tr>
<tr>
<td>Construction &amp; Design</td>
<td>1</td>
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<tr>
<td>PHYC 10 Conceptual Physics</td>
<td>3</td>
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<tr>
<td>MATH 55 Geometry</td>
<td>4</td>
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<td>Additional graduation requirements</td>
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<tr>
<td>Second Semester (spring)</td>
<td></td>
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<tr>
<td>ARCH 22A Delineation &amp; Rendering</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 101 Architecture Design Studio I</td>
<td>4</td>
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<td>Third Semester (fall)</td>
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<tr>
<td>ARCH 120 Fundamentals of Building</td>
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<tr>
<td>Construction</td>
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<tr>
<td>ARCH 50 Construction Drawings</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 102 Architecture Design Studio II</td>
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<td>Additional graduation requirements</td>
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<tr>
<td>Fourth Semester (spring)</td>
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</tr>
<tr>
<td>ARCH 27 (spring only) Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>of Building Structures</td>
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<tr>
<td>ARCH 31B (spring only) History of</td>
<td>3</td>
</tr>
<tr>
<td>Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH 52A Architectural CADD or BIM</td>
<td>3</td>
</tr>
<tr>
<td>120 Revit Architecture I</td>
<td></td>
</tr>
<tr>
<td>ARCH 160 (spring only) Professional</td>
<td>3</td>
</tr>
<tr>
<td>Practice</td>
<td></td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>41</td>
</tr>
</tbody>
</table>
individual transfer institution’s websites. Students are strongly urged to speak with architecture program faculty if they need assistance on understanding transfer requirements.

The A.S. degree in Interior Design has strong emphasis on both Architecture and Art. The program will prepare them in areas of design, technology, digital skills, drawing, delineation and rendering, structures, history, professional practice, art history, and graphic 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; salesperson; furniture designer; and assistant in coordination of colors, fabric, furniture, lighting systems, and exhibits.

Learning Outcomes

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

- Create interior solutions to a set of project requirements including material and color selection.
- Develop interior graphics using digital and analog tools that communicate design intentions and document construction requirements.
- Analyze the historical periods and movements of Interior Design.
- Explain the duties and responsibilities of stakeholders within the legal and regulatory environments.
- Understand technical building and material systems and their interface with interior spaces.

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,</td>
<td></td>
</tr>
<tr>
<td>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 or ART 126 Color</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>ARCH 101 Architecture Design Studio I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 52A Architectural CADD or BIM 120 Revit Architecture I</td>
<td>3</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>3</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.

Learning Outcomes

Upon completion of this program, the student will be able to:

- Estimate, organize and manage construction project resources through the use of cost estimates and schedules.
- Manage and control construction work activities utilizing project control methodologies and quality control and assurance techniques.
- Analyze and interpret construction documents.
- Assess the role of material selection and structures in the field of construction management.
- Assess the contractual and regulatory considerations and restraints associated with the administration of a construction project.
- Manage a construction project utilizing computer software.
- Assess effective methods of communication in a professional work environment.
- Design and develop a work-plan containing specific work duties in which to apply objectives at the work site.

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 or SUPV 234 Communication for Bus Management 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 (Required for placement in summer internship position)</td>
<td>1</td>
</tr>
<tr>
<td>Additional Graduation Requirements</td>
<td></td>
</tr>
</tbody>
</table>
Fifth Semester (Summer)
LERN 63 Career Counseling for Work Experience (Concurrent work in internship position required) . . . . 1
Total Units .................................................. 38

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.

Learning Outcomes

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

- Assess effective methods of communication in a professional work environment.
- Analyze and interpret construction documents.
- Assess the role of material selection and structures in the field of construction management.
- Assess the contractual and regulatory considerations and restraints associated with the administration of a construction project.
- Manage a construction project utilizing computer software.
- Assess effective methods of communication in a professional work environment.

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>
<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>Total Units</td>
<td>18</td>
</tr>
</tbody>
</table>

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 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.

Learning Outcomes

Upon completion of this program, the student will be able to:

- Estimate, organize and manage construction project resources through the use of cost estimates and schedules.
- Assess the role of material selection and structures in the field of construction management.
- Assess the contractual and regulatory considerations and restraints associated with the administration of a construction project.
- Manage a construction project utilizing computer software.
- Assess effective methods of communication in a professional work environment.
- Analyze and interpret construction documents.
- Assess the role of material selection and structures in the field of construction management.
- Assess the contractual and regulatory considerations and restraints associated with the administration of a construction project.
- Manage a construction project utilizing computer software.
- Assess effective methods of communication in a professional work environment.

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>Total Units</td>
<td>30</td>
</tr>
</tbody>
</table>

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

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 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 signage; 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
Prereq.: ARCH 20 or ET 104 or 1yr 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
Prereq.: ARCH 20
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
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 1 (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
Formerly ARCH 23

ARCH 120A. Concrete in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips P/NP Available
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 120A = CNST 120A

ARCH 120B. Rough Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips P/NP Available
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 120B = CNST 120B

ARCH 120C. Finish Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips P/NP Available
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 120C = CNST 120C

ARCH 120D. Masonry and Tile in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips P/NP Available
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
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
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
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
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

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

Building Information Modeling

Credit, Degree Applicable Courses:
BIM 120. Revit Architecture I (3)
Lec-2, lab-3.5 P/NP Available
Advise: ARCH 120
An introduction to Building Information Modeling (BIM) and Revit Architecture software. Automation of bidding design and documentation process, interface and command access, coordination of data, and views for annotations and printing. No previous CADD experience required. CSU

BIM 120. Revit Architecture II (3)
Lec-2, lab-3.5 P/NP Available
An advanced course in Building Information Modeling (BIM) and Revit Architecture software. Automation of design work processes for construction documents, project management and the use of Revit’s software to work with teams in a collaborative environment. CSU

BIM 220. Revit Architecture III (3)
Lec-2, lab-3.5 P/NP Available
A comprehensive course in AutoCad, 2D and 3D modeling, design and drafting utilizing Civil 3D. Elevation and section views are introduced. Layouts and other drafting tools are introduced. CSU

BIM 320. Revit Architecture IV (3)
Lec-2, lab-3.5 P/NP Available
A comprehensive course in AutoCad, 2D and 3D modeling, design and drafting utilizing Civil 3D. Elevation and section views are introduced. Layouts and other drafting tools are introduced. CSU

BIM 420. Revit Architecture V (3)
Lec-2, lab-3.5 P/NP Available
A comprehensive course in AutoCad, 2D and 3D modeling, design and drafting utilizing Civil 3D. Elevation and section views are introduced. Layouts and other drafting tools are introduced. CSU
Construction Management

Credit, Degree Applicable Courses:
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 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 248. Construction Project Administration (3)
Lec-3, field trips P/NP available
Advise: CM 100
Principles and practical applications of construction project administration with an emphasis on construction-phase services. Topics include: an overview of project administration throughout the phases of a construction project; the contractual and regulatory environment of construction projects; the development of a project procedures manual; computer-based project administration. CSU

Noncredit Courses:
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 102. Interior Design Studio I (4)
Lec-2, lab-4, field trips P/NP Available
Prereq.: ARCH 101
Advise: ARCH 48
Relate design fundamentals to space and form of commercial and institutional interior environments. Topics include color, space, form, light, sustainability, material, furniture selection, windows, floors, and accessories as these relate to the profession. CSU

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.

Learning Outcomes
Upon completion of courses in Art, students will be able to:

- Engage in a visual literacy that is based upon the understanding of the elements of design and the general awareness of historical and contemporary artistic cultures and trends.
- Critically evaluate artwork by identifying design elements and using discipline specific terminology and skills.
- Develop a series of projects that demonstrate critical analysis, creative thinking, technical skill in a variety of media, as well as the exploration of content and personal approach.
- Recognize opportunities of problem solving in the processes of creation.
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 History 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
P/NP available
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
P/NP available
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
P/NP available
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 P/NP available
American master paintings from the time of the Revolution to the 20th century on exhibit in the newly reopened DeYoung Fine Arts Museum will be examined. Artifacts will be analyzed for the formal qualities of style, interpreted within the context of American history and main-streamed 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.

**Enrollment Limitations on Physical Education and Visual or Performing Arts Courses**

*Per title 5 Section 55041, effective Fall 2013, students may not enroll more than four times in "active participatory courses that are related in content" in the areas of physical education or visual and performing arts, which includes art, dance, music, and theatre. This limitation applies even if a student receives a substandard grade or "W" during one or more of the enrollments in such a course or if the students petition for repetition due to extenuating circumstances.*

Art courses that are related in content are grouped together in "families" of courses below. The families are indicated by their headings, e.g., Design, Basic Drawing, etc. For the most up-to-date listing of courses and families, refer to the online catalog, [www.ccsf.edu/catalog](http://www.ccsf.edu/catalog).

### Design

**ART 125A. Basic Design (3)**
Lec-2, lab-4, field trips
*Advise: Completion/concurrent enrollment in ART 130A*

An introduction to the basic components of two-dimensional design: subject, form, content, with a focus on their dynamic interrelation. Through observation, analysis, discussion of traditional and contemporary approaches in fine and commercial arts, students learn to apply the elements and principles of visual organization to creative projects using various media. CSU/UC

**ART 125B. Advanced Design 3D(3)**
Lec-2, lab-4, field trips
*Prereq.: ART 125A*
*Advise: ART 130A*

An introduction to the basic elements of three-dimensional form and design, including concepts and language fundamental to all art making. This course covers the structural and visual elements of three-dimensional design and is geared to assist majors: Fine & Applied Arts, Photography, Theater Arts, Fashion, Interior Design, and Architecture. CSU/UC

**ART 126. Color (3)**
Lec-2, lab-4, field trips
A comprehensive course in the study of color, its sources, properties, theories and applications in additive and subtractive media. Develops conceptual and practical skills for effective visual communication utilizing color. Color mixing, color interaction, color harmonies, optical, spatial, psychological, subjective, cultural, historical uses of color are explored through creative projects. CSU/UC

### Basic Drawing

**ART 130A. Basic Drawing (3)**
Lec-2, lab-4, field trips
*Advise: Completion/concurrent enrollment in ART 125A*

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 individual attention. Instruction leads to direct the student and encourage subjective self-expression. CSU/UC

**ART 130B. Intermediate Drawing (3)**
Lec-2, lab-4, field trips
*Prereq.: ART 125A and 130A*

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*

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*

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

### Figure Drawing

**ART 132A. Beginning Figure Drawing (3)**
Lec-2, lab-4, field trips
*Prereq.: ART 125A and 130A*

*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
Advanced study of the drawing of the nude human figure. Analysis of basic forms, structure, proportion, symmetry, balance, and rhythm. Human anatomy. CSU/UC

Illustration

ART 136A. Introduction to Illustration (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
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
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 development 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
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 presentation 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, and caricature; differentiation of these from the grotesque. Importance of observation and the use of a sketchbook to draw from real life situations. CSU

Painting

ART 140A. Beginning Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
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
Development of painting techniques and style into advanced concepts 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
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 140D. Painting Mastery (3)
Lec-2, lab-4, field trips
Prereq.: ART 140C
Advanced-level class building on the skills, concepts, issues addressed in ART 140C; create self-directed unified body of work/portfolio in preparation for transferring to upper division University, art school, or professional activities; refine analytical skills and technical expertise via deeper exploration of contemporary art and painting issues. CSU

Watercolor & Chinese Brush Painting

ART 145A. Introduction to Watercolor Painting (3)
Lec-2, lab-4, field trips
Prereq.: ART 125A and 130A
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
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
Prereq.: ART 145A
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
Continuation of ART 146A utilizing traditional and contemporary Chinese art styles with emphasis on complex landscapes, flowers, animals and figures. CSU/UC
**Printmaking**

**ART 150A. Fine Arts Printmaking (3)**
Lec-2, lab-4, field trips  
Prereq.: ART 130A  
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  
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  
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 150D. Advanced Fine Arts Printmaking (3)**
Lec-2, lab-4, field trips  
Prereq.: ART 150B AND ART 150C  
An advanced fine arts printmaking course which focuses on the development of a body of work using complex intaglio and/or relief printmaking techniques. Emphasis is on the student's aesthetic and creative success in producing a portfolio of work for transfer as well as professional and vocational opportunities in printmaking. CSU/UC

**ART 151A. Beginning Monoprint (3)**
Lec-2, lab-4, field trips  
Prereq.: ART 150B AND 150C  
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  
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  
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

**Book Arts & Mixed Media**

**ART 154. Hand Printed Book: Design and Production (3)**
Lec-2, lab-4  
Prereq.: ART 150A  
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/UC  
ART 154 = GRPH 154

**ART 155. Bookbinding (3)**
Lec-2, lab-4  
Study and practice of bookbinding. First: basic structures and craftsmanship. Second: innovative bindings and conservation techniques. CSU/UC  
ART 155 = GRPH 155

**ART 156. Mixed Media: Works on Paper (3)**
Lec-2, lab-4, field trips  
Prereq.: ART 125A AND 130A  
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

**Ceramics**

**ART 160A. Beginning Ceramics (3)**
Lec-2, lab-4, field trips  
Prereq.: ART 125A AND 130A  
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  
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
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
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 handbuilding, 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

**Sculpture**

ART 170A. Beginning Sculpture (3)
Lec-2, lab-4
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

ART 170C. Advanced Sculpture (3)
Lec-2, lab-4, field trips
**Prereq.:** ART 170A AND 170B
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

**Metal Arts**

ART 180A. Beginning Jewelry/Metal Arts (3)
Lec-2, lab-4, field trips
An introduction to basic fabricating processes and ideas, including use of tools and materials, soldering, cold connections, forming, stone setting, and basic 3-D design principles. Emphasis is placed on gaining technical skill, knowledge of safe practices, personal expression, and evolution of aesthetic sense. CSU

ART 180B. Intermediate Jewelry/Metal Arts (3)
Lec-2, lab-4, field trips
**Prereq.:** ART 180A
Building on previous experience, intermediate students will explore more advanced jewelry and metalsmithing techniques including faceted stone setting, angle raising, kinetic junctions, and forging. Emphasis is placed on refining technical skill, development of tool use, knowledge of safe practices, personal expression, and refinement of aesthetic sense. CSU

ART 180C. Advanced Jewelry/Metal Arts (3)
Lec-2, lab-4, field trips
**Prereq.:** ART 180B
Advanced students are provided with an opportunity to focus exploration on subjects of interest to the student. Subjects can include historic, contemporary, one of a kind, or production jewelry/metal arts. The students will be highly self motivated and directed, ready to develop their work, concepts, and design capabilities. CSU

ART 180D. Exhibition Preparation for Jewelry/Metal Arts (3)
Lec-2, lab-4
**Prereq.:** ART 180C
The self directed, advanced Metal Arts student will develop and execute a successful exhibition of their work. The student will experience all aspects of an exhibition; funding, securing a venue, the exhibition proposal, making work, professionally documenting work, advertising the exhibition, installing work, monitoring and closing the exhibition. CSU

ART 181A. Beginning Casting for Metal Arts (3)
Lec-2, lab-4, field trips
**Prereq.:** ART 181A
An introduction to basic casting techniques including direct and lost wax methods use of the centrifugal and vacuum casting machine, as well as use of the oxy/acetylene torch and electromelt furnace. Emphasis is placed on developing proficiency, thorough knowledge of safe practices, and development of 3-D design skills and personal aesthetic sense. CSU

ART 181B. Intermediate Casting for Metal Arts (3)
Lec-2, lab-4, field trips
**Prereq.:** ART 181A
This is an intermediate level casting course that incorporates traditional and non-traditional techniques to further develop the student’s casting competency. Emphasis is placed on creative risk taking, proficiency in tool use, thorough knowledge of safe practices, development of higher level casting skills, content of work, and design aesthetic. CSU
ART 181C. Advanced Casting for Metal Arts (3)
Lec-2, lab-4, field trips
A course that allows advanced students an opportunity to focus exploration on subjects of interest to the student. Subjects can include historic, contemporary, one of a kind, or production casting. The student will be highly self motivated and directed, ready to develop their work, concepts, and design capabilities. CSU

Portfolio/Independent Study

ART 185. Portfolio Preparation (3)
Lec-2, lab-4, field trips
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

Learning Outcomes

Upon completion of courses in Asian American Studies, students will be able to:

- Critically evaluate the ways Asians Americans act and ways others have acted in response to their experience in the United States including conditioning, culture, and subgroups within the Asian American Community, by applying the theories and methodologies of social and behavioral science inquiry used in Asian American Studies.
- Analyze the Asian American experience in United States history and government; examine the importance of inclusion and participation in civic duties and responsibilities based on historical and political precedent.
- Exhibit an aesthetic understanding of the ways in which Asian Americans have created fine and performing arts, linguistic expression, philosophical reasoning, analytical or creative writing.
- Analyze the intersections of race, class, ethnicity, gender, sexuality, sexual orientation within the Asian American experience in the United States.

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 Asialness/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/NC 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 patterns 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/NC 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/NC available
Repeat: ASAM 61, 62, 63 combined, maximum credit: 15 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/NC available
Supervised individual or group study on topics and issues in Asian American Studies. CSU (UC upon review)

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**Asian Studies**

**Office:** Batmale 373  
**Phone Number:** (415) 239-3089  
**Web Site:** www.ccsf.edu/asianst

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**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 be able to 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/NC 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/NC 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 Hangul 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/NC 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/NC 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 Animé (3)**
Lec-3, field trips  
P/NC available
An overview of the history and styles of Japanese comics (manga) and animation (animé), 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  
P/NC 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  
P/NC available
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
**ADVISOR: 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 P/NP available
**ADVISOR: ELIGIBLE FOR ENGL 1A**
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 P/NP available
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 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

**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**
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 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 44. Comparative History of Overseas Chinese (3)**
Lec-3 P/NP available
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/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
**ADVISOR: 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 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
**ADVISOR: 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
Emphasis on current affairs and issues in any of the Pacific rim countries. 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

**Japanese Language Courses:** See Japanese in this section of the catalog.
JAPA 39. Japanese Culture and Civilization (3)
Lec-3
Adviser: Eligible for ENGL 1A
No knowledge of Japanese required.
Not open to students who 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 have completed JAPA 39.
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
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

POLS 35. Government 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

PSYC 22. Psychology of Race and Ethnic Relations (3)
Lec-3
P/NP available
Not open to students who have completed PSYC 23.
Examination of race as a social construction, attitude formation, social psychological principles, forms of racism and discrimination, privilege and social power, psychological response to racism, and racial identity development. Psycho-historical analysis of the experiences and contributions of African Americans, Asian Americans, Latino(a) Americans, and Native Americans. CSU

PSYC 23. Psychology of Race and Ethnic Relations (3)
Lec-3
P/NP available
Prereq.: PSYC 1
Not open to students who have completed PSYC 22.
Examination of race as a social construction, attitude formation, social psychological principles, forms of racism and discrimination, privilege and social power, psychological response to racism, and racial identity development. Psycho-historical analysis of the experiences and contributions of African Americans, Asian Americans, Latino(a) Americans, and Native Americans. Completion of a research project. UC/CSU

JAPA 49. Japanese Culture and Civilization (3)
Lec-3
P/NP only
No knowledge of Japanese required.
Not open to students who have completed JAPA 39.
A consideration of the major achievements of Japanese culture as reflected in language, literature, art, religion and daily life. CSU

Astronomy

Office: Science 400
Phone Number: (415) 239-3242
Web Site: www.ccsf.edu/astro

Announcement of Courses
General Information
The Astronomy Department offers classes of 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 concurrently with or after completion of a lecture course. A complete range of topical courses is provided for students interested in astronomy or astrophysics as a career. For further information, contact the department chairperson at (415) 452-5666.

Learning Outcomes
Upon completion of courses in Astronomy, students will be able to*
- Establish that the Universe and its components are knowable, and that we are coming to know them through observations, experiments and theory (the nature of progress in astronomy)
- Assert that physical laws and processes are universal in scope.
- Apply the scientific method.
- Comprehend with a cosmic perspective, including analyzing the nature, scope, and evolution of the Universe, and where the Earth, Solar System, and Milky Way Galaxy fit in.
- Compare and contrast the structure, properties, and evolution of astronomical objects that may include clusters of galaxies, galaxies, stars, stellar remnants, planetary systems and biological life.


Credit, Degree Applicable Courses

ASTR 1. Cosmic Evolution (3)
Lec
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, field trips
Biological perspective on areas of current space research that seek 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, field trips
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

ASTR 16. Observational Astronomy (1)
Lab, 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
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 ESL 150 or placement in ENGL 92 or ESL 160
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/ Motorcycle, Construction, and Building Maintenance

Office: 1400 Evans
Phone Number: (415) 550-4409
Web Site: www.ccsf.edu/autotech

Learning Outcomes

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

- Distinguish, classify, and summarize automotive systems, functions, and their interrelation.
- Identify and use basic hand, power, lifting tools and equipment.
- Analyze wiring diagrams, use of diagnostic and electrical equipment, troubleshoot computer circuits and systems.
- Analyze brake, suspension and alignment systems, perform needed repairs, diagnose, inspect, and repair brake systems.
- Identify transmission components, operating systems, clutch manual and automatic transmissions; diagnose, inspect and repair components; understand and use specialized tools and equipment.
- Diagnose, inspect and repair engine components, perform scheduled maintenance repairs, identify parts, utilize service repair information, record engine measurements.
- Diagnose no start drivability and ignition problems, perform fuel system tests and assess onboard diagnostic system failures using appropriate test equipment.

Lec-3, conf-1
Prereq: ASTR 1, 14, or 16

ASTR 17. Solar System (3)

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)

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)

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 Technology

Automotive Mechanics Major (AS)

This Automotive Technician Associate in Science Degree prepares students to enter the automotive maintenance field with all the necessary skills to perform entry level work as well as have a thorough understanding of theory so they will be qualified to participate in advanced training at the dealer level. This program complies with our national Automotive Service Excellence (ASE) certification through the accreditation body: National Automotive Teachers Education Foundation (NATEF), through which we are required to maintain certification every five years.

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.

Learning Outcomes

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

- Distinguish, classify, and summarize automotive systems, functions, and their interrelation.
- Identify and use basic hand, power, lifting tools and equipment.
- Analyze wiring diagrams, use of diagnostic and electrical equipment, troubleshoot computer circuits and systems.
- Analyze brake, suspension and alignment systems, perform needed repairs, diagnose, inspect, and repair brake systems.
- Identify transmission components, operating systems, clutch manual and automatic transmissions; diagnose, inspect and repair components; understand and use specialized tools and equipment.
- Diagnose, inspect and repair engine components, perform scheduled maintenance repairs, identify parts, utilize service repair information, record engine measurements.
- Diagnose no start drivability and ignition problems, perform fuel system tests and assess onboard diagnostic system failures using appropriate test equipment.
Courses Required for the Major in Automotive Mechanics

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>First Semester</td>
<td></td>
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<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>
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</tbody>
</table>

Automotive Alternative Fuel Technology Certificate

This certificate is for learners achieving training in the function, diagnosis, and maintenance of alternative fuel vehicles. This certificate includes instruction in basic automotive systems (AUTO 50), a thorough understanding of automotive electrical systems (AUTO 51), and an in-depth study of alternative fuel vehicles, appropriate niche transportation for all situations, system operation, inspection, diagnosis and repair (AUTO 57). Students completing this certificate program will be qualified for employment in the service and repair of existing and emerging technology alternative fuel vehicles.

Learning Outcomes

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

- Distinguish, classify and summarize automotive systems, functions, and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic equipment.
- Describe the function of vehicle electrical, gaseous, hybrid, and fuel cell, systems and components.
- Identify, troubleshoot, analyze, diagnose, and repair existing and emerging alternative fuel vehicles.
- Compare and contrast innovative fuel systems.

Students must complete each course with a grade of “C” or higher. Students may apply for certificate having completed course work or equivalent standards within the past 5 years.

Courses Required for the Certificate of Achievement in Automotive Engine Performance and Drivability

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 50 Introduction to Automotive Technology</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 51 Automotive Electrical</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 55 Engine Performance/Drivability</td>
<td>8</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</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 parts, 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 straightness 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. Students may apply for certificate having completed course work or equivalent standards within the past 5 years.

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>8</td>
</tr>
<tr>
<td>AUTO 200 Dent and Damage Repair</td>
<td>2</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 minor body and fender damage and the sequential procedures involved in proper metal damage.
- 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>
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</thead>
<tbody>
<tr>
<td>AUTO 200 Dent and Damage Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUTO 203 Introduction to Auto Body</td>
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</tr>
<tr>
<td>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>
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<td>Total Units</td>
<td>9</td>
</tr>
</tbody>
</table>

Brake and Suspension Specialist Certificate

This certificate is for learners achieving training in automotive braking systems in preparation for the ASE A-5 Brakes national certification. This certificate includes instruction in basic automotive systems (Auto 50), a thorough understanding of brake systems including mechanical operation, preventive maintenance and repair of vehicle systems, including ABS (anti-lock brake systems); inspect, remove, repair and replace suspension system components and perform four wheel alignment (Auto 52). Students completing this certificate will be qualified for employment in the service and repair of automobile and similar vehicles.

Learning Outcomes

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

- Distinguish, classify, and summarize automotive systems, functions and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic and repair equipment.
- Diagnose, inspect, and repair brake systems, resurface drums and rotors, identify steering and suspension system operations and repairs.
- Perform four wheel alignment procedures and appropriate diagnosis and repair of suspension systems.

Students must complete each course with a grade of "C" or higher. Students may apply for certificate having completed course work or equivalent standards within the past 5 years.

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<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>Total Units</td>
<td>9</td>
</tr>
</tbody>
</table>
Courses Required for the Certificate of Accomplishment in Brake and Suspension Specialist

Course | Units
--- | ---
AUTO 50 Intro to Automotive Mechanics | 8
AUTO 52 Brakes, Suspension, Alignment | 8
Total Units | 16

Carpentry Certificate

This certificate validates 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 basic automotive systems (Auto 50), a thorough analysis of engine problems and repair procedures including lubrication, cooling and exhaust systems, precision measurement, tear down and rebuilding of engines (Auto 54).

Learning Outcomes

Upon completion of this certificate, students will be able to:
- Distinguish, classify, and summarize automotive systems, functions and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic and repair equipment.
- Diagnose and repair common engine problems, measure, remove and replace components, access appropriate service data, perform block, head, and valve train conditioning.
- Perform proper engine start-up, break in, and tune-up procedures.

Students must complete each course with a grade of “C” or higher. Students may apply for certificate having completed course work or equivalent standards within the past 5 years.

Courses Required for the Certificate of Accomplishment in Engine Repair Specialist

Course | Units
--- | ---
AUTO 50 Intro to Automotive Mechanics | 8
AUTO 54 Engine Repair | 8
Total Units | 16

General Automotive Technician Certificate

This certificate is for learners achieving training in the classification of General Automotive Technician and prepares for the ASE (Automotive Service Excellence) A-6 Electrical/Electronic Systems, national certification. This certification includes instruction in basic automotive systems (Auto 50), a thorough understanding of electrical theory, battery, starting, charging, lighting, instrumentation, and wiring systems, including the use of diagnostic meters, oscilloscopes, scan tools, and engine analyzers.

Learning Outcomes

Upon completion of this certificate, students will be able to:
- Distinguish, classify, and summarize automotive systems, functions, and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic and repair equipment.
- Examine and describe electrical theory, starting, charging, wiring and on board diagnostic functions and their application to automotive systems.
- Perform and evaluate electrical system tests using appropriate diagnostic equipment.

Students must complete each course with a grade of “C” or higher. Students may apply for certificate having completed course work or equivalent standards within the past 5 years.

Courses Required for the Certificate of Accomplishment in General Automotive Technician

Course | Units
--- | ---
AUTO 50 Intro to Automotive Mechanics | 8
AUTO 51 Automotive Electrical | 8
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.

Courses Required for the Certificate of Accomplishment in Non-Structural Analysis and Damage Repair

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>AUTO 200 Dent and Damage Repair</td>
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</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>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

Transmission Specialist Certificate

This certificate validates training in automatic and manual transmissions in preparation for the ASE (Automotive Service Excellence) national certification examination. This certificate includes instruction in basic automotive systems (Auto 50), a thorough understanding of automatic and manual transmissions, clutches, drive shafts, axles, differentials, and electronic sensing devices, including tear down and rebuilding (Auto 53). Students completing this certificate program will be qualified for employment in the service and repair of the automobile and similar vehicles.

Learning Outcomes

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

- Distinguish, classify, and summarize automotive systems, functions, and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic equipment.
- Describe the function and operation of automatic and manual transmissions and associated assemblies.
- Troubleshoot, analyze, diagnose, tear down, and repair transmission systems.

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.

Learning Outcomes

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

- Describe the history, culture, and esthetics of the motorcycle, including social, political, and economic issues.
- Examine laboratory systems, hand and shop and measuring tools and their usage, and fire and safety procedures including the interpretation of service and repair data.
- Perform basic tune-up and service operations and interpret maintenance schedules.
- Evaluate, service, and troubleshoot cooling, lubrication, and fuel systems.
- Diagnose and repair problems with wheels, axles, frames, suspensions, ignition and electrical systems, engine problems, including disassembly and reassembly strategies.
- Executive customization skills incorporating metal fabrication and or custom painting.
- Practice safe shop and personal safety procedures.

Courses Required for the Major in Motorcycle Technician

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTO 90 Introduction to Motorcycle Technology*</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 91 Motorcycle Gen. Services</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 92 Tune-up, Electrical and Performance</td>
<td>4</td>
</tr>
<tr>
<td>MOTO 93 Engine &amp; Power Train Repair</td>
<td>4</td>
</tr>
<tr>
<td><strong>Elective Courses: Choose 3 units from the following</strong></td>
<td></td>
</tr>
<tr>
<td>MOTO 61 Custom Metal Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>MOTO 63 Auto-Moto Custom Painting</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

*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. Students may apply for certificate having completed course work or equivalent standards within the past 7 years.

Courses Required for the Certificate of Accomplishment in Motorcycle Engine and Power Train Repair

Courses Units
MOTO 90 Introduction to Motorcycle Technology 4
MOTO 93 Engine and Power Train Repair 4

Elective Courses: Choose 3 units from the following:
MOTO 61 Custom Metal Fabrication 3
MOTO 63 Auto-Moto Custom Painting 3

Total Units 11

Motorcycle General Service Certificate

This certificate validates 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.
- Analyze, design and operate specialized metal working and painting equipment in projects related to modifying and restoring motorcycle bodies and frames

Students must complete each course with a grade of “C” or higher. Students may apply for certificate having completed course work or equivalent standards within the past 7 years.

Courses Required for the Certificate of Accomplishment in Motorcycle General Service

Courses Units
MOTO 90 Introduction to Motorcycle Technology 4
MOTO 91 Motorcycle General Service 4

Elective Courses: Choose 3 units from the following:
MOTO 61 Custom Metal Fabrication 3
MOTO 63 Auto-Moto Custom Painting 3

Total Units 11

Motorcycle Tune-up, Electrical, and Performance Certificate

This certificate validates training in the tune-up, trouble shooting, 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, functions, and their interrelation.
- Demonstrate safe shop practices and the use of diagnostic equipment.
- Evaluate, troubleshoot and service electrical components, controls, switches, and perform dynamometer tuning in conjunction with air fuel systems.
- Analyze, design and operate specialized metal working and painting equipment in projects related to modifying and restoring motorcycle bodies and frames.

Students must complete each course with a grade of “C” or higher. Students may apply for certificate having completed course work or equivalent standards within the past 7 years.

Courses Required for the Certificate of Accomplishment in Motorcycle Tune-up, Electrical, and Performance

Courses Units
MOTO 90 Introduction to Motorcycle Technology 4
MOTO 92 Tune-up, Electrical and Performance 4

Elective Courses: Choose 3 units from the following:
MOTO 61 Custom Metal Fabrication 3
MOTO 63 Auto-Moto Custom Painting 3

Total Units 11
Upon completion of this certificate, students will be able to:

- 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 this certificate having completed course work or equivalent standards with in the past 5 years.

Courses Required for the Certificate of Accomplishment in Residential Plumbing

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNST 69 Construction Safety</td>
<td>1</td>
</tr>
<tr>
<td>CNST 100 Intro to Construction Applications</td>
<td>3</td>
</tr>
<tr>
<td>CNST 103 Residential Plumbing</td>
<td>4</td>
</tr>
<tr>
<td>CNST 106 Fundamentals of the Uniform Plumbing Code</td>
<td>3</td>
</tr>
<tr>
<td>CNST 107 Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
</tr>
</tbody>
</table>

Residential Wiring Certificate

This certificate validates training in the rules, methods, and materials necessary to install residential electrical systems. This certificate includes instruction in appropriate safety practices and procedures (CNST 69), foundational construction principles, procedures, tools and equipment (CNST 100), basic electrical theory, hands on design and construction of electrical wiring systems (CNST 109), the ability to reference electrical codes and determine their proper application (CNST 105), and successfully reading and understanding blueprints and electrical schematics (CNST 107).

Students completing this certificate program will be qualified for employment in companies both union and non-union where residential wiring 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.
- Identify and summarize basic electrical theory and its application in residential wiring systems.
- Design and install a residential wiring system in compliance with national, state and local codes.
- Interpret the language and navigate through the NEC (National Electric Code) to interpret the appropriate practical application.
- 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 this certificate having completed course work or equivalent standards with in the past 5 years.

Courses Required for the Certificate of Accomplishment in Residential Wiring

<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 Intro to Construction Applications</td>
<td>3</td>
</tr>
<tr>
<td>CNST 105 Electrical Code</td>
<td>6</td>
</tr>
</tbody>
</table>
Upon completion of the certificate, students will be able to:

**Learning Outcomes**

• Recognize and apply appropriate tool, equipment, chemical, and toxic waste safety and handling.

• Identify and demonstrate recommended practices for the use of custodial tools, machines, chemicals, and specialized equipment.

• Demonstrate general understanding of custodial terminology, directions, units of measurement and instructions.

• Apply critical reading, writing, math and study skills.

### Building Maintenance

**Building Operation-Maintenance and Repair Noncredit Certificate**

Length of the program is 735 hours. Of these hours, 420 hours are core courses and the remaining hours must be from the elective courses listed below.

Core courses must be taken in the first two semesters of study.

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIAP 9501 Refrigeration/Air Condition</td>
<td>105</td>
</tr>
<tr>
<td>TIAP 9502 Refrigeration/Air Condition</td>
<td>105</td>
</tr>
<tr>
<td>TIEE 9572 DC Electricity</td>
<td>105</td>
</tr>
</tbody>
</table>

Election (Select 3)

<table>
<thead>
<tr>
<th>Elective Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TICU 9550 Custodial Training</td>
<td>105</td>
</tr>
<tr>
<td>TIEE 9573 Electrical Basic Controls</td>
<td>105</td>
</tr>
<tr>
<td>TIEE 9574 Electrical Code and Constr. Practice</td>
<td>105</td>
</tr>
<tr>
<td>TIXX 9505 Plumbing Applications</td>
<td>105</td>
</tr>
<tr>
<td>TIXX 9701 Haz Materials Training</td>
<td>105</td>
</tr>
<tr>
<td>LAIR 9809 Labor Rel in Select Indus</td>
<td>105</td>
</tr>
</tbody>
</table>

**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**

This certificate of completion validates training in tool, equipment, chemical and personal safety, use of proper and appropriate cleaning and maintenance equipment and supplies, and proper handling of diverse chemicals (TICU 9550), Two electives are available for students in this program, one for those needing Vocational English as a Second Language specialty training for custodial workers (ESLV 4816), includes English terminology for equipment, supplies, common tasks, and safety. The other elective, Vocational Foundation Skills, (TRST 4604), includes instruction in the skills of reading, writing, math and studying. Students completing this certificate will be qualified for entry level custodial and building maintenance.

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, 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
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

**AUTO 53. Automatic and Manual Transmissions (8)**

Lec-6, lab-6, field trips
Prereq.: AUTO 50 or pass Challenge Test
Principle of construction, mechanical operation, preventive maintenance and repair of suspension systems, wheel alignment and wheel balancing. Preparation for A.S.E. certification. CSU

**AUTO 54. Engine Repair (8)**

Lec-6, lab-6, field trips
Prereq.: AUTO 50 or pass Challenge Test
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
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 P/NP available
Prereq.: AUTO 50 and AUTO 51

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 P/NP available
Prereq.: AUTO 50

Principles and functions of alternative fuel vehicles and procedures for their maintenance, system diagnosis for optional 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 P/NP available
Importance of least 16 units in Automotive Technology or consent of instructor. Student must obtain approval of project from instructor.

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

Advisce: Completion of at least 16 units in Auto Body Trade Skills or consent of instructor. Student must obtain approval of project from instructor.

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

Advisce: Completion of at least 6 units in Motorcycle and Small Engine Repair, or consent of instructor. Student must obtain approval of project from instructor.

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
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 Automotive Electronics (4)
Lect-4, lab-2 P/NP Available
Prereq.: AUTO 51

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
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-4, lab-2 P/NP Available
Prereq.: AUTO 105

A technical course focusing on higher level electrical troubleshooting 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

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 Controls 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)  
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-2, lab-4 (8 wks)  
Advis: ENGL 92 or ESL 160 or Placement in ENGL 93 or 94; or ESL 170; Math E or BMAS G, H or J  
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  
Theory, operation and diagnosis of the four-stroke cycle internal combustion engine, and how different designs and configurations affect 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.: ESL 150  
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 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, windscreens 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  
Advis: 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  
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  
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  
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  
Procedures related to assembly and disassembly of automotive body and fender components. Removal and replacement of side panels, windscreens, braces, inner structural members, trim, upholstery, moldings and bumper assemblies. CSU

AUTO 131. Electrical Vehicle Conversion (3)
Lec-2, lab-4, field trips  
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)
Work-minimum paid supervised 75-300 hrs or unpaid supervised 30-240 hrs plus coordinating conferences and individual meetings by arrangement  
Coreq: Enrollment in at least 7 semester units including Advis: Completion of at least 8 semester units of Automotive Program courses  
Repeat: AUTO 133 and 134 combined, max. credit: 12 units  
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: AUT 133; COMPLETION OF AT LEAST 8 SEMESTER UNITS OF AUTOMOTIVE PROGRAM COURSES
ADVISE: AUTO 50
This course involves 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 206. Plastic Repair & Refinishing (2)
Lec-1, lab-3
ADVISE: AUTO 50
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 207. Body/Frame Straightening & Repair (2)
Lec-1, lab-3
ADVISE: AUTO 50
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
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
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
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

Formerly AUTO 132.
MOTO 81. Fuel, Lubrication and Cooling (4)
Lec-3, lab-3, field trips  P/NP available
Prereq.: MOTO 60 or 90
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 90
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
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
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
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
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 manufactures 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
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
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 diagnose and troubleshoot performance problems. Various motorcycles will be run on a dyno so students can use the data to troubleshoot maintenance problems. After repairs or adjustments, the motorcycles will be run again to measure the results. CSU

MOTO 90. Introduction to Motorcycle Technology (4)
Lec-3, lab-3  P/NP Available
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
Prereq.: MOTO 90
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 92. Tune-up, Electrical and Performance (4)
Lec-3, lab-3  P/NP Available
Prereq.: MOTO 90
This course covers motorcycle tune-up, troubleshooting, and performance tuning on a dynamometer. Included are also electrical principles, components and the generation, regulation, distribution, control, switching and testing of electrical systems. Upon completion of this class, a student should be able to perform, virtually all aspects of scheduled maintenance. CSU
MOTO 93. Engine & Power Train Repair (4)
Lec-3, lab-3 P/NP Available
Prereq.: MOTO 90
This course trains students in the theory of operation, troubleshooting, major overhaul and general repairs of motorcycle engines and power trains. CSU

Construction

CNST A. Industrial Truck Training (0.5)
Lec-5, lab-3 (total hrs) P/NP Available
This is a safety certification course designed to comply with OSHA’s powered industrial truck regulations. Upon successfully completing this course students will receive a certification card good for 3 years.

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
An introduction to the design, installation and maintenance of Solar Photovoltaic (PV) systems. A 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-2, lab-4 P/NP Available
Advise: CNST 100 or TIXX 1000 or CNST 109 or TIEE 1009 or TIEE 9576
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
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. 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 constructor 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 Certificates 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 107A. Practical Blueprint Reading (1)
Lec-.5, lab-1.5 P/NP Available
Advise: CNST 100 or CNST/TIXX 1000
This course teaches the basic skills of blueprint reading and specifications. CSU

CNST 108. Fundamentals of Construction Contracting (3)
Lec- 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
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 review 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
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
A course in the methods, materials, and installation techniques 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
A course in the methods, materials, and installation techniques necessary to 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
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
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. CSU

CNST 120A. Concrete in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  
P/NP Available
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 120B. Rough Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  
P/NP Available
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 120C. Finish Carpentry in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  
P/NP Available
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 120D. Masonry and Tile in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  
P/NP Available
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 120E. Plumbing in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  
P/NP Available
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

CNST 120F. Electrical in Residential Construction (0.5)
Lec-6, lab-12 (total hrs), field trips  
P/NP Available
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 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

Noncredit Courses:
CNST 1003. Residential Plumbing (105 hrs)
Advis: CNST 69; and 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
respecti ve 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, incorporation 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)  
Advised: 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)  
Advis: 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)  
Advis: TRST 4601 or ESLN 3800  
Introduction to the tools, materials, and processes used in finishing exterior and interior surfaces. Projects include installation, taping, and texturing 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 9553. Carpet Care (108 hrs)  
Advised: TICU 9550 or equivalent  
Extensive discussion on carpets. Subject areas include: history of carpet, methods of carpet construction, identification of fibers, chemistry of cleaning, soiling, carpet and upholstery cleaning methods, techniques of dyeing, and topical treatment. Involves hands-on practices.

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)  
Advised: 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/Assent of Instructor  
Review of basic electricity and Study of Alternating Current. Includes; fundamentals of Electromagnetism, Impedance, Inductance and Capacitance. Symbols, laws, diagrams, schematics mathemat-
ics 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 services, house circuits, installing wiring, remodeling wiring, connection (hook-ups) for appliances and devices, application and procedures for permits.

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.

Other Specialty Courses

TIXX 1000. Introduction to Construction (90 hrs)
Prereq.: Completion of or concurrent enrollment in CNST 69 or possession of OSHA 10 certificate
Advis: 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
Advis: 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.
Learning Outcomes
Upon completion of this degree, students will be able to:

- Demonstrate understanding of the processes of science, the scientific method, and the relationship between scientific research and established knowledge.
- Express biological scientific literacy in oral and written communication.
- Demonstrate content knowledge in biology.
- Demonstrate fundamental lab skills.
- Evaluate biological data, draw reasonable conclusions, recognize the ethical implications of these conclusions, and apply theses conclusions to personal, community, and scientific problems.
- Meet the requirements for transfer to biology programs at U.C., C.S.U. or other four-year institutions.

Courses Required for the Major in Biological Sciences

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<tr>
<th>Course</th>
<th>Units</th>
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<tr>
<td>BIO 100A General Biology</td>
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<tr>
<td>BIO 100B General Biology</td>
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<tr>
<td>CHEM 101A General Chemistry</td>
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<tr>
<td>CHEM 101B General Chemistry</td>
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<tr>
<td>CHEM 208A Organic Chemistry</td>
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<td>CHEM 208B Organic Chemistry</td>
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<td>PHYC 2B Introductory Physics</td>
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<td>PHYC 2BL Introductory Physics Lab</td>
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</tbody>
</table>

Total Units: 44

Additional Course Requirements for Students

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

CCSF's Biological Sciences Certificate 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 Certificates 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 Certificate 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 Certificate is also designed for students planning to transfer into a premedicale, pre-veterinary, pre-dental, pharmacy, or chiropractic degree program.

Through the core forty-four units of the Biological Sciences Certificate, 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.

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

- Demonstrate understanding of the processes of science, the scientific method, and the relationship between scientific research and established knowledge.
- Express biological scientific literacy in oral and written communication.
- Demonstrate content knowledge in biology.
- Demonstrate fundamental lab skills.
- Evaluate biological data, draw reasonable conclusions, recognize the ethical implications of these conclusions, and apply theses conclusions to personal, community, and scientific problems.

Courses Required for the Certificate of Achievement in Biological Sciences

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<td>PHYC 2BL Introductory Physics Lab</td>
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</tbody>
</table>

Total Units: 44

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 resource 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.

Learning Outcomes
Upon completion of the major, students will be able to:

- Demonstrate an understanding of the process of science, the scientific method, and the relationship between scientific research and established knowledge.
Courses Required for the Major in Environmental Studies and Science

Course Units

BIO 31 Introduction to Environmental Science .......................... 3
CHEM 101A General College Chemistry .................................. 5
BIO 100A General Biology .................................................. 5
BIO 100B General Biology .................................................. 5

Option 1: Environmental Studies and Science, Concentration in Ecology and Conservation

Elective Coursework: One of the following course combinations (4 units)

BIO 20 Introduction to Ecology ............................................. 3
with BIO 41L Ecology Laboratory ........................................ 1
BIO 40 Plants and Animals of California ............................. 3
with BIO 41L Ecology Laboratory ........................................ 1
BIO 40 Plants and Animals of California ............................. 3
with BIO 26 Habitat Restoration Field Studies .................... 1
BIO 32 Marine Biology ..................................................... 3
with BIO 32L Marine Biology Laboratory ............................ 1

Option 2: Environmental Studies and Science, Concentration in Environmental Studies

Elective Coursework: One of the following course combinations (4 units)

BIO 30 Ecology and Human Environment .............................. 3
with BIO 41L Ecology Laboratory ........................................ 1
POLS 22 Environmental Politics and Policy ........................... 3
with BIO 25 Ecology of San Francisco ................................. 1

Total Units ............................................................................. 22

Announcements of 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
Prereq: 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)
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

Biology

BIO 9. Human Biology (4)
Lec-3, lab-3

Advisement: MATH E1 or MATH E3; or placement in MATH 40 or MATH 840; ESL 140 (or placement in ESL 150), 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 explore current scientific issues, development critical thinking skills, and examine the structure and function of the human body in relation to health and disease. UC/CSU

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, 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 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 in 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 Mendocino.  
An examination of the geology, biology, and human history of Point Reyes National Seashore. A study of the interrelationships of plants, animals, and humans in 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 in 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  
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. UC/CSU

BIO 31 = GEOG 31 = SUST 31

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  
_Advise: 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  
_Advise: 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; or 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
ADVISOR: ENGLISH 92 or ESL 150
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, Olvau Gorge, and Mount Kilimanjaro. 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: BIO 91 and 92 combined, max. credit: 16 units
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: BIO 91 and 92 combined, max. credit: 16 units
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.: One yr hs biology or BIO 11 or equivalent; completion of CHEM 11A; or demo of the exit skills of both BIO 11 and CHEM 11A
ADVISOR: ENGL 93
A general introduction to cell structure and function, cell biochemistry, cell cycle, principles of molecular and organismic 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 soil and liquid samples. Quality assurance/quality control, safety, site selection, sample storage and preservations. 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  
Prerequisite: 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  
Prerequisite: 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 students 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  
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  
Prerequisite: CHEM 32 or CHEM 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  
Prerequisite: CHEM 32 or CHEM 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  P/NP available  
Advisable: ENGL 93 or ESL 160

Designed to expose students to topical questions in the field of neural science, 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
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.

Audio and Video for the Web Certificate

The Audio and Video for the Web certificate combines the study of creating media content, process and problem solving with tools and techniques of visual communication for broadband distribution. This course of study prepares the student to distribute audio and video content effectively via broadband.

Learning Outcomes

Upon completion of this certificate, students will be able to:
- Describe and analyze the processes involved in creating audio and video content for broadband delivery.
- Discuss, evaluate and analyze the impact internet content has on society.
- Plan, organize and create effective online content that conveys intended message.
- Demonstrate technical skills necessary for creating effective audio and video content for the internet including, but not limited to: recording, editing and compressing to appropriate format.
- Display professionalism and understanding of workforce protocol in communication and behavior.

Students must complete each course with a grade of “C” or higher. Students must complete courses at City College of San Francisco. All courses must be completed within four years.

Courses Required for the Certificate of Accomplishment in Audio and Video for the Web

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 135 Audio for the Web</td>
<td>1</td>
</tr>
<tr>
<td>BCST 136 Video for the Web</td>
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</tr>
<tr>
<td>BCST 159 Digital Media Portfolio</td>
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<td><strong>Total</strong></td>
<td><strong>6</strong></td>
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</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 certificate 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 workflows 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.
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 Broadcast Motion Graphics

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>First Semester</td>
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<tr>
<td>BCST 119 Digital Media Skills</td>
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<tr>
<td>BCST 140 Studio Video Production or BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
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<tr>
<td>BCST 143 Digital Video Editing</td>
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<tr>
<td>or BCST 144 Digital Video Editing-Final Cut Pro</td>
<td>3</td>
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<tr>
<td>BCST 160A College Internship</td>
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<tr>
<td>or BCST 165A Industry Internship</td>
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<tr>
<td>Third Semester</td>
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<tr>
<td>BCST 146 Digital Video Effects</td>
<td>3</td>
</tr>
<tr>
<td>BCST 148 HD TV Studio Production or BCST 149 HD TV Field Production</td>
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</table>

Recommended Additional Coursework: GRPH 53A, GRPH 98A, GRPH 100 A

Digital Radio Management Certificate

This certificate provides students with practical production and performance craft skills for entry-level employment in contemporary radio.

Learning Outcomes

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

- Describe and analyze the history of radio and explain its impact on the structure of radio today.
- Employ contemporary radio programming and management techniques.
- Operate on-air studio equipment and digital radio software.
- Research, write and produce audio packages for airing.
- Display professionalism and understanding of workforce protocol in 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 four years.

Courses Required for the Certificate of Accomplishment in Digital Radio Management

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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</thead>
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<td>First Semester</td>
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<tr>
<td>BCST 100 Intro to BCST Electronic Media</td>
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</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
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<tr>
<td>BCST 120 Audio Production</td>
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<tr>
<td>Second Semester</td>
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<tr>
<td>BCST 132 Radio Management Skills</td>
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<tr>
<td>BCST 150 Special Project</td>
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<tr>
<td>BCST 160A College Internship</td>
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<tr>
<td>or BCST 165A Industry Internship</td>
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<td>Total</td>
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Digital Radio News and Public Affairs Certificate

This certificate provides students with practical production and performance craft skills for entry-level employment in contemporary radio.

Learning Outcomes

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

- Describe and analyze the history of radio and explain its impact on the structure of radio today.
- Analyze and demonstrate current presentation trends for news, entertainment and public affairs, including the use of social media.
- Research, write and produce audio packages for airing.
- Display professionalism and understanding of workforce protocol in 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 four years.

Courses Required for the Certificate of Accomplishment in Digital Radio News and Public Affairs

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>First Semester</td>
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<tr>
<td>BCST 100 Intro to BCST Electronic Media</td>
<td>3</td>
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<tr>
<td>BCST 119 Digital Media Skills</td>
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<tr>
<td>BCST 120 Audio Production</td>
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<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>BCST 110 Writing for BCST 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 College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or BCST 165A Industry Internship</td>
<td></td>
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<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>

Digital Radio Performance and Production Certificate

This certificate provides students with practical production and performance craft skills for entry-level employment in contemporary radio.

Learning Outcomes

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

- Describe and analyze the history of radio and explain its impact on the structure of radio today.
- Operate all on-air studio equipment and digital radio software.
- Display professionalism and understanding of workforce protocol in 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 four years.
Courses Required for the Certificate of Accomplishment in Digital Radio Performance and Production

<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 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 120 Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 115 Announcing and Performance</td>
<td>3</td>
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</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BCST 120 Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 160A College Internship or BCST 165A Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
</tr>
</tbody>
</table>

Recommended course: BCST 124

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.

Learning Outcomes

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 devices.
- 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.

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 Multimedia Journalism

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 110 Writing for BCST Electronic Media</td>
<td>3</td>
</tr>
<tr>
<td>BCST 115 Announcing and Performance</td>
<td>3</td>
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</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BCST 130 Radio News and Public Affairs</td>
<td>3</td>
</tr>
<tr>
<td>BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 160 College Internship or BCST 165A Industry Internship</td>
<td>2</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
</tr>
</tbody>
</table>

Recommended Additional Coursework: BCST 100, 135, 136, JOUR 21, 22, 24, 29, 37

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 multimedia 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.

Learning Outcomes

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.
- Plan, engineer and perform Foley and ADR recording sessions including spotting.
- Edit, sweeten and place sync and ADR dialog, as well as sync, foley, library and created sound effects in sync with 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 surround sound formats for mixing sound to picture.
- Display professionalism and understanding of workforce protocol in 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 a 4-year period.

Courses Required for the Certificate of Accomplishment in Sound Design

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>First Semester</td>
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<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>
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<tr>
<td>Second Semester</td>
<td></td>
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<tr>
<td>BCST 124 Digital Audio Production</td>
<td>3</td>
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<tr>
<td>BCST 126 Sound for Video</td>
<td>3</td>
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<tr>
<td>Choose 2 units from the following:</td>
<td></td>
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<tr>
<td>BCST 160A or B or C College Internship</td>
<td>2</td>
</tr>
<tr>
<td>or 165A or B Industry Internship</td>
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</tr>
<tr>
<td>Total Units</td>
<td>17</td>
</tr>
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</table>

Recommended: BCST 127 Advanced Sound Recording

## Sound Recording Certificate

Students learn recording techniques and how to operate the equipment 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 including sound for video games.

### Learning Outcomes

Upon completion of this certificate, students will be able to:
- Plan and execute the studio set-up for multi-track recording session with microphone and line level devices including but not limited to, vocals, acoustic or electronic instruments, strings, woodwinds, percussion and brass.
- Configure multi-track control room equipment to track and monitor a music recording session and then engineer the session including basic tracks and overdubs.
- Plan, configure and execute a multi-track mix down session.
- Master final product for distribution on industry standard formats.
- Identify and troubleshoot problems with above sessions.
- Display professionalism and understanding of workforce protocol in 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.

## 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 agencies, businesses, and institutions.

Upon completion of this certificate, students will be able to:
- Plan, implement, and manage the aesthetic and technical elements 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 videography 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 protocol in 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>
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<tbody>
<tr>
<td>First Semester</td>
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<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
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<tr>
<td>BCST 140 Studio Video Production</td>
<td>3</td>
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<tr>
<td>BCST 145 Field Video Production</td>
<td>3</td>
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<tr>
<td>Second Semester</td>
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<tr>
<td>BCST 110 Writing for Broadcast Electronic Media</td>
<td>3</td>
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<tr>
<td>BCST 148 HD TV Studio Production</td>
<td>3</td>
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<tr>
<td>or BCST 149 HD TV Field Production</td>
<td>3</td>
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</tbody>
</table>
Video Production and Editing Certificate

This certificate provides basic video production and editing craft skills for entry-level employment in video production and editing 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, including video editor, assistant editor and postproduction management assistant.
- Display professionalism and understanding of workforce protocols in communication and behavior.

Students must complete each course with a grade of C or higher.

Courses Required for the Certificate of Accomplishment in Video Production and Editing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>First Semester</td>
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<tr>
<td>BCST 140 Studio Video Production</td>
<td>3</td>
</tr>
<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
</tr>
<tr>
<td>BCST 143 Digital Video Editing</td>
<td>3</td>
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<tr>
<td>BCST 144 Digital Video Editing - Final Cut</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
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<tr>
<td>BCST 100 Intro to BCST Electronic Media</td>
<td>3</td>
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<tr>
<td>BCST 119 Digital Media Skills</td>
<td>3</td>
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<tr>
<td>BCST 140 Studio Video Production</td>
<td>3</td>
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<tr>
<td>or BCST 145 Field Video Production</td>
<td>3</td>
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<tr>
<td>Third Semester</td>
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<tr>
<td>BCST 100 College Internship</td>
<td>2</td>
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<tr>
<td>BCST 145 Field Video Production</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
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</table>

Recommended Additional Coursework: BCST 120, BCST 126, BCST 143, BCST 144 and BCST 149

Multimedia Rich Media Production

See page 294.
BCST 101. Media Literacy (3)
Lec-3
**Advisement:** SPCH 1A or II
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
Survey of new electronic media such as interactive teleconferencing and videoconferencing, direct broadcast satellite, digital radio and television, interactive television, desktop audio and video production, virtual news sets, holographic sportscasts, webcasting, computer-based broadcast news production, multimedia, digital cable, and wireless systems. Application of communication theories and research using technological, historical, social, and political perspectives. Impact of emerging communication technologies on broadcast electronic media. CSU

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 research. Emphasis on the influence of mass media on the individual and society. CSU/UC

BCST 104. Race and Media (3)
Lec-3, field trips
**Advisement:** 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
P/NP only
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
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
Advisement: 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.
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 demonstration of their exit skills.
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
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
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
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
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
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
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
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 120
ADVISE: BCST 119
Students will program and operate radio music, radio production, promotional spots, and radio scheduling databases for both live and automated radio presentation using industry standard software and systems. CSU

BCST 135. Audio for the Web (1)
Lec-12, lab-12 (total hours)
PREREQ.: COMPLETION OR CONCURRENT ENROLLMENT IN BCST 119
ADVISE: BCST 120
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 136. Video for the Web (1)
Lec-12, lab-12 (total hours)
PREREQ.: BCST 135
ADVISE: BCST 145
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
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
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

BCST 144. Digital Video Editing-Final Cut Pro (3)
Lec-3, lab-3
Prereq.: BCST 140 or CINE 24, plus BCST 119, MMSP 120 or CS 100M, or demonstration of their skills
An introduction to digital video editing for TV, video, and multimedia projects using Apple Final Cut Pro on an Apple computer system. Using leading industry software students of this class focus on the operation, technology, techniques, and aesthetic process of editing video content with related title and visual effects components. CSU

BCST 145. Field Video Production (3)
Lec-3, lab-3
Aesthetic and technical elements of video field production, with emphasis on concept development, pre-production, production, and post-production. Students collaborate to create 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 146. Digital Video Effects (3)
Lec-3, lab-3
Prereq.: BCST 119 or MMSP 120 or GRPH 25, and BCST 143 or 144 or GRPH 98A or 100A or CINE 56 or PHOT 57 or 60A
Hands-on course for creating digital effects for broadcast, cablecast, webcast and distribution on mobile devices by applying video motion graphics and compositing techniques using both software and hardware-based methodologies. Effects are conceived, created and integrated with video projects in studio and laboratory settings. CSU

BCST 147. Advanced Digital Video Editing (3)
Lec-3, lab-3
Prereq.: BCST 143 or BCST 144 or CINE 56
An advanced video editing course that builds on prior introductory classes. The focus is on understanding and practicing video editing processes and techniques across a variety of TV and video genres as well as to gain a solid understanding of current video technology as related to processes, formats, visual effects and hardware. CSU

BCST 148. HD TV Studio Production (3)
Lec-3, lab-6, field trips
Prereq.: BCST 140 and completion/concurrent enrollment in BCST 119
Advise: BCST 110, 115, 126, 145, and BCST 143 or 144
Aesthetic and technical elements of studio television production with emphasis on program development. Students collaborate to design, write and produce programming using contemporary broadcast studio standards and technology for cablecast on San Francisco's Educational Access Cable Channel 27, 75, and distribution on the internet. CSU

BCST 149. HD TV Field Production (3)
Lec-3, lab-6, field trips
Prereq.: BCST 145 and completion/concurrent enrollment in BCST 119
Advise: BCST 110, 126, 140, and BCST 143 or 144
Advanced Aesthetic and technical elements of digital video field production. Students write and produce digital video packages from concept through post-production, and collaborate in teams to create professional quality digital video packages and segments for cablecast on Educational Access Television Channel 27, 75, and distribution on the internet. CSU

BCST 150. Special Projects (2)
Conf-1, lab-2, work-3, field trips P/NP available
Work on electronic media communications project acceptable to both the student and the instructor. Only a project having significant value in the field of broadcast electronic media arts will be approved. CSU

BCST 155-156-157 Selected Topics in BCST Electronic Media Arts (1-2-3)
Lec-1, 2, 3 P/NP available
Selected topics in Broadcast Electronic Media Arts are explored through lectures, discussions, seminars, industry panels, media conferences, satellite downlinks, teleconferences, workshops, film, video, and/or television leading to a critical analysis and understanding of the topic under examination. CSU

BCST 159. Digital Media Portfolio (1)
Lec-12, lab-24 (total hrs), field trips P/NP Available
Conceptualizing and development of an online portfolio for gaining entry level work in the Broadcast Electronic Media and Sound Recording industries. Students will refine and present a professional resume. Students will apply best practice in portfolio presentation. CSU

BCST 160A-160B-160C. College Internship (2-2-2)
Lec/conf-1.5, lab-2, 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. Resume writing, communication skills, and job interview techniques. 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
Repeat: BCST 165A and 165B combined, max. credit: 8 units
Observation and supervised off-campus experience in an approved broadcast electronic media industry installation such as a television station, a video production firm, a radio station, a music recording studio or business, a corporate media production department, or a multimedia production team. Resume 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 96E.

**Noncredit Course:**

BCST 1000. Supervised Training for Broadcast Electronic Media Arts (140 hrs)

A course designed to assist students in achieving course learning outcomes, reinforce classroom learning and improve practical skills in sound recording, sound design, live sound, motion graphics, video production, audio production, radio production, post production, media writing and production planning. Students work on individual and team assignments and projects with faculty available for consultation, clarification and guidance.

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**Business**

Office: Cloud 105
Phone Number: (415) 239-3203
Web Site: www.ccsf.edu/business

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**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.

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**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.”

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**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
  Computerized Accounting Specialist
  QuickBooks for Accounting
  Specialized Accounting

**Administrative Support/Office Technology**

Administrative Support Major
Office Technology Credit Certificate
Noncredit Certificates:
  Administrative Assistant
  Advanced Word Processing
  Basic Business Office Skills for Customer Service
  Basic Business Skills for Medical Office
  Basic Computer Concepts
  Basic Word Processing
  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
  PowerPoint 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 Small Business Noncredit Certificate
International Business
   International Business Credit 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

Small Business
   Small Business Noncredit Certificate

Supervision and Management
   Supervision and Management Credit 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.

Learning Outcomes

Upon completion of the Accounting major, the students will be able to:

- Develop and maintain a financial information system
- Apply uniform commercial law to common business transactions
- Generate and analyze management reports
- Analyze and explain financial statements in oral and written communication
- Prepare individual federal and California income tax returns
- Use standard business software
- Qualify for entry level accounting position

Courses Required for the Major in Accounting

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>ACCT 1 Fin Acct</td>
<td>4</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 or 3</td>
</tr>
</tbody>
</table>

Additional graduation requirements

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2 Managerial Acct.</td>
<td>4</td>
</tr>
<tr>
<td>BSEN 74 Bus Corresp</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 59 Federal Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Bus/Excel</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional graduation requirements

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

Additional graduation requirements

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>

Additional graduation requirements

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.

Learning Outcomes

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

- Understand, analyze and explain financial statements
- Demonstrate basic understanding of the fundamentals of double-entry bookkeeping
- Demonstrate competency in business software applications
- Develop and maintain a financial information system
- Qualify for entry level bookkeeping position

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>or ACCT 1† Fin Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 53 Acct on Microcomp</td>
<td>3</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 or 3</td>
</tr>
</tbody>
</table>
MABS 25** Keyboarding .................................. 1
LERN 62 Successful Job Search Techniques .............. 1
Total Units .................................................. 18-19
†Students must earn a grade of C or higher in ACCT 10 or ACCT 1.
**Students may satisfy the requirements for MABS 25 by passing an examination in typing.

**Accounting Assistant Noncredit Certificate**

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 concept.
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. Use a variety of business applications software including work processing, spreadsheet and database; discuss current technology and trends.

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS 1111</td>
<td>Orientation to Noncredit Certificates and Programs</td>
<td>15</td>
</tr>
<tr>
<td>ACBO 9201</td>
<td>Accounting I-Proprietorship and Partnership</td>
<td>15</td>
</tr>
<tr>
<td>or ACBO 9206</td>
<td>Basic Accounting Concepts</td>
<td>15</td>
</tr>
<tr>
<td>and ACBO 9207</td>
<td>Basic Accounting Concepts II</td>
<td>90</td>
</tr>
<tr>
<td>ACBO 9205</td>
<td>QuickBooks Complete</td>
<td>90</td>
</tr>
<tr>
<td>or ACBO 9208</td>
<td>QuickBooks: Level I</td>
<td>90</td>
</tr>
<tr>
<td>or ACBO 9211</td>
<td>Microsoft Office Accounting-Level I</td>
<td>90</td>
</tr>
<tr>
<td>and ACBO 9212</td>
<td>Microsoft Office Accounting-Level II</td>
<td>90</td>
</tr>
<tr>
<td>ACBO 9210</td>
<td>Income Tax Prep: Intro</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9245</td>
<td>Windows Essentials for MS Office Applications</td>
<td>30</td>
</tr>
<tr>
<td>COMP 9932</td>
<td>Excel for Accounting Principles</td>
<td>45</td>
</tr>
<tr>
<td>or ACBO 9215</td>
<td>Microsoft Access for Accounting Principles</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904</td>
<td>Microsoft Excel for Business II</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9867</td>
<td>Microsoft Excel Essentials I</td>
<td>45</td>
</tr>
<tr>
<td>and COMP 9895</td>
<td>Microsoft Excel Essentials II</td>
<td>45</td>
</tr>
<tr>
<td>and COMP 9888</td>
<td>Microsoft Excel Essentials III</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4503</td>
<td>Business English</td>
<td>90</td>
</tr>
<tr>
<td>or BOSS 4500</td>
<td>Business English I</td>
<td>90</td>
</tr>
<tr>
<td>and BOSS 4501</td>
<td>Business English II</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 4510</td>
<td>Business Communications</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 3501</td>
<td>Customer Service Skills</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5505</td>
<td>Keyboarding Quick</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5506</td>
<td>Computer Keyboarding: The Numeric Keypad</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9889</td>
<td>Intro to MS Office Applications for Business</td>
<td>15</td>
</tr>
<tr>
<td>or COMP 9952</td>
<td>Internet &amp; E-mail for the Business Office</td>
<td>15</td>
</tr>
<tr>
<td>and COMP 9964</td>
<td>Microsoft Outlook Essentials</td>
<td>15</td>
</tr>
<tr>
<td>and WOPR 9993</td>
<td>Microsoft Word Essentials II</td>
<td>15</td>
</tr>
<tr>
<td>and COMP 9894</td>
<td>Microsoft Access Essentials I</td>
<td>15</td>
</tr>
<tr>
<td>and COMP 9951</td>
<td>PowerPoint</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 3500</td>
<td>Job Preparation</td>
<td>90</td>
</tr>
<tr>
<td>or LERN 1062</td>
<td>Job Search Skills</td>
<td>15-45</td>
</tr>
<tr>
<td>Total Hours ...........................................</td>
<td>615-645</td>
<td></td>
</tr>
</tbody>
</table>

**Exit Requirements.** Successful completion of all courses with a passing grade of “C” or better. 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.

**Financial Assistance.** The Accounting Assistant Certificate Program is eligible for financial assistance. Please consult a counselor for further information.

**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**

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

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 Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS 1111</td>
<td>Orientation to Noncredit Certificates and Programs</td>
<td>15</td>
</tr>
<tr>
<td>ACBO 9203</td>
<td>Principles of Accounting (Comprehensive)</td>
<td>180</td>
</tr>
<tr>
<td>or ACBO 9201</td>
<td>Accounting I-Proprietorship &amp; Partnership</td>
<td>180</td>
</tr>
<tr>
<td>and ACBO 9202</td>
<td>Accounting - Corporate</td>
<td>180</td>
</tr>
<tr>
<td>or ACBO 9206</td>
<td>Basic Acct Concepts</td>
<td>180</td>
</tr>
<tr>
<td>and ACBO 9207</td>
<td>Basic Accounting Concepts II</td>
<td>180</td>
</tr>
<tr>
<td>and ACBO 9208</td>
<td>Accounting - Corporate</td>
<td>180</td>
</tr>
<tr>
<td>ACBO 9205</td>
<td>Computerized Accounting</td>
<td>90</td>
</tr>
<tr>
<td>or ACBO 9208</td>
<td>QuickBooks: Level I</td>
<td>90</td>
</tr>
<tr>
<td>and ACBO 9209</td>
<td>QuickBooks: Level II</td>
<td>90</td>
</tr>
<tr>
<td>COMP 9889</td>
<td>Intro to MS Office Applications for Business</td>
<td>90</td>
</tr>
<tr>
<td>or COMP 9857</td>
<td>MS Office Business Applications</td>
<td>90</td>
</tr>
<tr>
<td>with Simulated Projects</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>COMP 9904</td>
<td>Microsoft Excel: Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9932</td>
<td>Excel for Accounting Principles</td>
<td>45</td>
</tr>
<tr>
<td>or ACBO 9215</td>
<td>Microsoft Access for Accounting Principles</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9928</td>
<td>PowerPoint for Business</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4503</td>
<td>Business English</td>
<td>90</td>
</tr>
<tr>
<td>or BOSS 4500</td>
<td>Business English I</td>
<td>90</td>
</tr>
<tr>
<td>and BOSS 4501</td>
<td>Business English II</td>
<td>90</td>
</tr>
</tbody>
</table>
BOSS 4510 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.


QuickBooks for 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 accounting principles with the integration of QuickBooks.

Students who receive this certificate will be qualified to apply for various accounting positions including, but not limited to, bookkeeper, accounts receivable, accounts payable and/or payroll clerk.

Learning Outcomes
Upon completion of the QuickBooks for Accounting Noncredit Certificate, students will be able to:

• Identify the steps in the accounting cycle.
• Use technology (Microsoft Word, Excel and QuickBooks) as a tool to complete essential business office tasks.
• Prepare and interpret simple financial statement for businesses.
• Qualify to successfully pass the QuickBooks Certified User Exam (professional exam).

Advisory Entrance Requirements: ESL Level 5/6

Courses Required for the Certificate of Completion in QuickBooks for Accounting

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBO 9200 Acctg I - Proprietorship</td>
<td>15</td>
</tr>
<tr>
<td>Or both of the following:</td>
<td></td>
</tr>
<tr>
<td>ACBO 9206 Basic Acctg Concepts</td>
<td>90</td>
</tr>
<tr>
<td>ACBO 9207 Basic Acctg Concepts II</td>
<td></td>
</tr>
<tr>
<td>ACBO 9205 QuickBooks Complete</td>
<td>90</td>
</tr>
<tr>
<td>Or both of the following:</td>
<td></td>
</tr>
<tr>
<td>ACBO 9208 Quickbooks, Level I</td>
<td></td>
</tr>
<tr>
<td>ACBO 9209 Quickbooks, Level II</td>
<td></td>
</tr>
<tr>
<td>COMP 9900 Microsoft Excel for Bus</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Microsoft Excel for Bus II</td>
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<tr>
<td>COMP 9932 Excel for Accounting Principles</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9486 Microsoft Word for Bus I</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>360</td>
</tr>
</tbody>
</table>

Exit Requirements. Successful completion of all courses with a grade of “C” or higher.

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.

Learning Outcomes
Upon completion of the Specialized Accounting Skills Noncredit Certificate, students will be able to:

1. Use various software applications to prepare tax forms
2. Operate QuickBooks relative to Accounts Receivable, Accounts Payable, and Payroll
3. Apply published instructions by the Internal Revenue Service to various tax forms
4. Locate the numeric and operator keys by touch

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Courses Required for the Certificate of Completion in Specialized Accounting Skills

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBO 9210 Income Tax Prep Intro</td>
<td>15</td>
</tr>
<tr>
<td>ACBO 9213 QuickBooks A/P, A/R</td>
<td>15</td>
</tr>
<tr>
<td>ACBO 9214 QuickBooks, Payroll</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5506 Computer Keyboarding: The Numeric Keypad</td>
<td>15</td>
</tr>
<tr>
<td>Total Hours</td>
<td>60</td>
</tr>
</tbody>
</table>

Exit Requirements. Successful completion of all courses with a grade of “C” or higher.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>MABS 25 Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>or MABS 30 Computer Keyboarding</td>
<td></td>
</tr>
<tr>
<td>or MABS 35 Speedbldng: Keyboard</td>
<td>1, 2, or 3</td>
</tr>
<tr>
<td>MABS 40 Internet Explorer &amp; MS Outlook</td>
<td>3</td>
</tr>
<tr>
<td>BSEN 70 Fund. of English Grammar &amp; Comp</td>
<td>4</td>
</tr>
<tr>
<td>Additional graduation requirements**</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MABS 38 Keyboarding with Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>BSEN 74 Business Correspondence</td>
<td>3</td>
</tr>
</tbody>
</table>
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 67 Database for Business/Access .......... 3
BSEN 76 Report Writing ............................. 3
LERN 62 Successful Job Search Techniques ....... 1
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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>MABS 25 Keyboarding</td>
<td>1-3</td>
</tr>
<tr>
<td>or MABS 30 Computer Keyboarding</td>
<td></td>
</tr>
<tr>
<td>or MABS 35 SpeedBldg: Keyboard*</td>
<td></td>
</tr>
<tr>
<td>MABS 40 Internet Explorer &amp; MS Outlook</td>
<td>3</td>
</tr>
<tr>
<td>BSEN 70 Funda of English Grammar &amp; Comp</td>
<td>4</td>
</tr>
<tr>
<td>LERN 62 Successful Job Search Techniques</td>
<td>1</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>MABS 38 Keyboarding with Microsoft Word</td>
<td></td>
</tr>
<tr>
<td>or MABS 391 Word Process/Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>BSEN 74 Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>MABS 101 Spreadsheets for Business/Excel</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 6 Workplace Communication or or PSYC 26 Applied Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

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 5/6; typing: 25 net wpm; completion of WOPR 9486

Learning Outcomes
Upon completion of this certificate, students will be able to:
• Apply standard business English to oral and written communication and to proofreading tasks—include grammar, punctuation, mechanics, vocabulary, style and usage.
• Identify and apply appropriate behaviors to satisfy customers and clients.
• Operate a variety of office equipment, including computers, peripherals, and non-computerized office machines, such as copiers, postal meters, and electronic calculators.
• Keyboard a minimum of 50 net words a minute.
• Use standard business applications software including word processing, presentation, spreadsheet, accounting, and database.

Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS 1111 Orientation to Noncredit Certificates and Programs</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5500 Keyboarding for Computers</td>
<td>45</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>BOSS 5508 Advanced Office Procedures for the 21st Century</td>
<td>45</td>
</tr>
<tr>
<td>ACBO 9208 QuickBooks: Level I or ACBO 9211 Microsoft Office Accounting-Level I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9947 Windows Folder &amp; File Concepts</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9952 Internet &amp; E-mail for the Business Office</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9948 Acrobat Bus Office Doc Conversion</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9867 Microsoft Excel Essentials I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9895 Microsoft Excel Essentials II</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9888 Microsoft Excel Essentials III</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9928 PowerPoint for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9901 Microsoft Access for Business I</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 2500 Business Math w/Spreadsheets</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4503 Business English or BOSS 4500 Business English-Level I and BOSS 4501 Bus English-Level II</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 4511 Effective Business Communications or BOSS 4510 Business Communications</td>
<td>45-90</td>
</tr>
<tr>
<td>BOSS 3501 Customer Service Skills</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9995 Microsoft Word for Business II</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9996 Microsoft Word for Business III</td>
<td>45</td>
</tr>
</tbody>
</table>
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 of C or better. Typing: 50+ wpm with 90% accuracy. Minimum attendance of 80% in all classes is required. Completion of certificate coursework within two years


**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.

Learning Outcomes

Upon completion of the Advanced Word Processing Noncredit Certificate, students will be able to:

- Key a minimum of 35 words per minute with 90% accuracy.
- Create a reference document using a master document and sub-document with table of contents and index.
- Create, edit, and run a macro.
- Design and use a template.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6; Keyboarding 35 wpm net.

**Courses Required for the Certificate of Completion in Advanced Word Processing**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 3501 Keyboarding: Skill Development</td>
<td>15–90</td>
</tr>
<tr>
<td>or BOSS 5505 Keyboarding Quick</td>
<td></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>
</tbody>
</table>

Total Hours ...................................... 105–180

**Basic 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.

Learning Outcomes

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

- Apply the basics of quality customer service
- Identify customer needs and effectively handle them, including complaints
- Demonstrate effective telephone manners and e-mail etiquette
- Demonstrate effective telephone manners and e-mail etiquette

**Advisory Entrance Requirements.** Eligibility for noncredit ESL levels 5/6

**Courses Required for the Certificate of Completion in Basic Business Office Skills for Customer Service**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMNC 9232 Effective Communication (18)</td>
<td>18–45</td>
</tr>
<tr>
<td>or BOSS 4510 Business Communication (45)</td>
<td></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>WOPR 9995 Keyboarding Quick</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9930 E-mail Writing</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Hours ...................................... 68–95

**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 wps 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.

**Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 3500 Job Preparation</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4503 Business English</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 4510 Business Communications</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 5501 Keyboarding: Skill Development</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5509 Office Procedures for the 21st Century</td>
<td>45</td>
</tr>
<tr>
<td>BUSG 9901 Business Vocabulary</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9900 Microsoft EXCEL- Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Microsoft EXCEL- Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9908 Micro Appl: Current Topics*</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9928 PowerPoint for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9936 Using Outlook for Office Support, Level I</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9995 Microsoft Word for Business II</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9996 Microsoft Word for Business III</td>
<td>45</td>
</tr>
</tbody>
</table>

Total Hours ...................................... 720

*Students must complete two sections of COMP 9908-Microcomputer Applications: Current Topics (Medisoft Level 1 and Level 2).

**Exit Requirements.** Successful completion of all courses with a grade of C or higher. Typing 35 net wpm with no more than 10% error rate.

**Offered by:**

Mission Center .................................. 551–1120
Business 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

Learning Outcomes

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.

Courses Required for the Certificate of Completion in Business 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 Application</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

Learning Outcomes

Upon completion of the Basic Word Processing Noncredit Certificate, students will be able to:

1. Perform fundamental operations using Microsoft Word.
2. Use technology as a tool to complete essential business tasks.
3. Create typical business documents such as letters, memos and reports.

Courses

<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>
<tr>
<td>Option 1</td>
<td></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>Total Hours</td>
<td>90 – 135</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

Upon completion of the Business Office Publishing Basics Noncredit Certificate, students will be able to:

1. Perform fundamental operations using MS Publisher.
2. Use digital photo-editing software to enhance publications.
3. Create basic office publications.

Courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9938 Publisher for Business</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9907 Desktop Publishing for Business II</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9957 PhotoShop Elements I or COMP 9959</td>
<td>15 – 45</td>
</tr>
<tr>
<td>PhotoShop Elements</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>105 – 135</td>
</tr>
</tbody>
</table>

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

Upon completion of the Business Office Publishing Specialist Noncredit Certificate, students will be able to:

1. Perform fundamental operations using MS Publisher.
2. Use digital photo-editing software to enhance publications.
3. Create publications including flyers, newsletters, and brochures.

Courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9914 Desktop Publishing Advanced</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9943 Special Projects using Publisher</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9958 PhotoShop Elements II or COMP 9959</td>
<td>15 – 45</td>
</tr>
<tr>
<td>PhotoShop Elements</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>105 – 135</td>
</tr>
</tbody>
</table>

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

Upon completion of the Business Office Support Skills, Phase I Noncredit Certificate, students will be able to:

- Demonstrate accurate keyboard input at a minimum of 30 words per minute and numeric data entry at 175 strokes per minute.
- Use Microsoft Office applications such as Word, Excel, Access, and PowerPoint to produce basic documents.
- Apply basic office procedures to routine office tasks.
• Demonstrate basic knowledge and skills to be successful in an entry-level office position.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Courses Required for the Certificate of Completion in Business Office Skills, Phase I

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSS 3501 Customer Service Skills</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 4503 Business English</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5501 Keyboarding-Skill Development</td>
<td>90</td>
</tr>
<tr>
<td>or BOSS 5502 Clerical Keyboarding</td>
<td></td>
</tr>
<tr>
<td>BOSS 5506 Computer Keyboard: The Numeric Keypad</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5509 Office Procedures for the 21st Century</td>
<td></td>
</tr>
<tr>
<td>COMP 9889 Intro to MS Office Applications for Business and COMP 9951 PowerPoint</td>
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</tr>
<tr>
<td>or ALL OF THE FOLLOWING</td>
<td></td>
</tr>
<tr>
<td>COMP 9952 Internet &amp; E-mail for the Business Office</td>
<td></td>
</tr>
<tr>
<td>or COMP 9973 Microsoft Office Applications I</td>
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</tr>
<tr>
<td>or COMP 9976 Microsoft Office Applications II</td>
<td>105</td>
</tr>
<tr>
<td>Total Hours</td>
<td>360</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 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

Upon completion of the Business Office Support Skills, Phase II Noncredit Certificate, students will be able to:

• Demonstrate accurate keyboard input at a minimum of 50 words per minute.
• Use business application software such as Microsoft Word, Excel, Access, and PowerPoint to produce simple to complex documents.
• Demonstrate ability to communicate (both spoken and written) in a business office.

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.

Courses Required for the Certificate of Completion in Business Office Skills, Phase II

<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>
</tbody>
</table>

BOSS 5510 Document Formatting & Production or both of the following:
COMP 9941 Simulated Projects for MS Office Suite
WOPR 9996 Microsoft Word for Business III......... 90
COMP 9909 Microsoft Excel for Business III........ 45
COMP 9910 Microsoft Access for Business II........ 45
COMP 9928 PowerPoint for Business.................. 45
COMP 9936 Using Outlook for Office Support Level I . 45
Total Hours ........................................... 360-540

Exit Requirements. Successful completion of all courses with a grade of C or higher. Typing 50+ 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.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes

• Apply computer skills to complete business tasks.
• Use a variety of business software including digital photo-editing, and web development.
• Perform fundamental operations using Adobe Dreamweaver.
• Perform fundamental operations using Adobe Photoshop Elements.
• Perform fundamental operations using Adobe Flash.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9917 Building Individual Web Sites (45)</td>
<td></td>
</tr>
<tr>
<td>or COMP 9918 Building Business Web Sites ..........</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9949 Dreamweaver I</td>
<td>15</td>
</tr>
<tr>
<td>or 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>or COMP 9957 PhotoShop Elements I</td>
<td>15</td>
</tr>
<tr>
<td>or COMP 9958 PhotoShop Elements II</td>
<td>15</td>
</tr>
<tr>
<td>or 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.

Advisory Entrance Requirements. Eligibility for noncredit ESL levels 5/6

Learning Outcomes

• Use a variety of business software including digital photo-editing, and web development.
• Perform fundamental operations using Adobe Dreamweaver.
• Perform fundamental operations using Adobe Photoshop Elements.
• Create a business web site with a database connection.
• Use web graphic tools.
Learning Outcomes

1. Keyboard a minimum of 40+ net words a minute.
2. Utilize a variety of business applications software including word processing, spreadsheet, database.
3. Actively assist in implementing general office procedure, including records management.
4. Use the Internet and standard business procedures.
5. Orally present information using appropriate language, style and format.

Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9919 Using Dreamweaver for Basic Business Web Pages</td>
<td>45</td>
</tr>
<tr>
<td>or COMP 9920 Using Web Expression for Web Pages</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9959 Photoshop Elements</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9933 Building Business Web Pages with Adobe Web Standard-Level I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9934 Building Business Web Pages with Adobe Web Standard-Level II</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9935 Business Web Graphics</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9922 Flash for Bus/Office Presentation</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>270</td>
</tr>
</tbody>
</table>

Clerical Support Specialist Noncredit Certificate

Program Goal. Prepare the student for entry-level general office support positions (such as receptionist, file clerk, information or general office clerk, data-entry clerk, shipping and receiving clerk). Students develop both the soft skills and hard skills required to work efficiently, productively and successfully in the modern business office.

Advisory Entrance Requirements: Eligibility for noncredit ESL Level 5/6; typing: 15–20 net wpm.

Learning Outcomes

1. Keyboard a minimum of 35 net words a minute.
2. Apply standard business English to oral and written communication, including grammar, punctuation, mechanics, vocabulary, style and usage.
3. Use 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 Computer Applications for Business

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS IIII Orientation to Noncredit Certificates</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 5501 Keyboarding: Skill Development</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5530 Document Formatting &amp; Production</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5599 Office Procedures for the 21st Century</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9245 Windows Essentials for MS Office Applications</td>
<td>30</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>90</td>
</tr>
<tr>
<td>or BOSS 4500 Business English - Level I and BOSS 4510 Business English - Level II</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 4511 Effective Business Communication or BOSS 4510 Business Communications</td>
<td>45-90</td>
</tr>
<tr>
<td>ACBO 9200 Recordkeeping for the Business Office or BOSS 5508 Advanced Office Procedures for the 21st Century</td>
<td>45</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 or LERN 1062 Job Skills Search</td>
<td>15-45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>675–750</td>
</tr>
</tbody>
</table>

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.


Computer Applications for Business Noncredit Certificate

Enrollment in Computer Applications for Business courses is for students interested in all levels of administrative positions including administrative office practices (keyboarding, computer literacy/applications, clerical and general office work, internet research, e-Business and eOffice web technologies, scheduling and appointment systems, creating and organizing documents, and employee/customer relations). Studies will exit the program with Business English and Business Math skills.

Entrance Advisories. Eligibility for noncredit ESL Level 6+; typing 25 wpm.

Learning Outcomes

1. Keyboard a minimum of 35 net words a minute.
2. Apply standard business English to oral and written communication, including grammar, punctuation, mechanics, vocabulary, style and usage.
3. Use 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 Computer Applications for Business

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS IIII Orientation to Noncredit Certificates</td>
<td>15</td>
</tr>
<tr>
<td>COMP 5501 Keyboarding: Skill Development</td>
<td>90</td>
</tr>
<tr>
<td>COMP 9905 Intro to Windows for MS Office OR ALL OF THE FOLLOWING: COMP 9245 Windows Essentials for MS Office</td>
<td></td>
</tr>
<tr>
<td>COMP 9964 Microsoft Outlook Essentials</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 3500 Job Preparation or LERN 1062 Job Skills Search</td>
<td>15-45</td>
</tr>
<tr>
<td>BOSS 5509 Office Procedures for the 21st Century</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 2500 Business Math w/ Spreadsheets I</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4510 Business Communications</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4503 Business English OR ALL OF THE FOLLOWING: BOSS 4500 Business English</td>
<td></td>
</tr>
<tr>
<td>BOSS 4501 Business English II</td>
<td>90</td>
</tr>
<tr>
<td>Select five courses from one of the following clusters: Business Productivity (Office Applications) COMP 9965 OpenOffice for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9966 OpenOffice for Business II</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9967 Google Apps for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9968 Google Apps for Business II</td>
<td>45</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>COMP 9900 Microsoft Excel for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Microsoft Excel for Business II</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9901 Microsoft Access for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9910 Microsoft Access for Business II</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9938 Publisher for Business</td>
<td>45</td>
</tr>
</tbody>
</table>
Administrative Assistant Courses Required for the Certificate of Completion in Construction

Upon completion of this certificate students will:

- Be better prepared for the construction office.
- Study the basic procedures of this industry, practiced such that students gain a solid competency of and employability in working with Excel.

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 classes required.


**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, job site office operation and message handling.

Advisory Entrance Requirements: Eligibility for noncredit ESLN 3700; type 20 wpm.

Learning Outcomes

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>Courses</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 1</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>

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. Use simple macros, formulas, functions, and lists.

Courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 9888 Microsoft Excel Essentials III</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9900 Microsoft Excel for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Microsoft Excel-Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9867 Microsoft Word for Business I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9951 PowerPoint</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>45–90</td>
</tr>
</tbody>
</table>

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

<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>Total Hours</td>
<td>135–180</td>
</tr>
</tbody>
</table>
Microsoft Office Specialist Noncredit Certificate

Program Goal. Prepares the student for entry-level clerical positions requiring the use of Microsoft Office applications. The student learns and develops the core competencies of Microsoft Word, Excel, Access, Outlook and PowerPoint while progressing through the various levels of each application.

Advisory Entrance Requirements. Eligibility for noncredit ESL 5/6; typing: 25 net wpm.

Learning Outcomes

Upon completion of the Microsoft Office Specialist Noncredit Certificate, students will be able to:

- Qualify for an entry level clerical position.
- Keyboard a minimum of 35 net words a minute.
- Develop and produce presentations utilizing electronic media and printed documents.
- Use a variety of business applications software including word processing, spreadsheet, presentation, and database.
- Use technology as a tool to complete essential business tasks.

Courses Required for the Certificate of Completion in Microsoft Office Specialist

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS 1111 Orientation to Noncredit Certificates and Programs</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 3500 Keyboarding for Computers</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 5510 Document Formatting &amp; Production</td>
<td>90</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>WOPR 9996 Microsoft Word for Business III</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9900 Excel-Beginning</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9904 Excel-Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9909 Microsoft Excel for Business III</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9901 Microsoft Access for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9910 Microsoft Access for Business II</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9936 Using Outlook for Office Support, Lvl I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9928 PowerPoint for Business</td>
<td>45</td>
</tr>
</tbody>
</table>

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

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.

Courses Required for the Certificate of Completion in Office Receptionist

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPS 1111 Orientation to Noncredit Certificate Programs</td>
<td>15</td>
</tr>
<tr>
<td>BOSS 3502 Customer Services Principles</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4500 Business English, Level I</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4511 Effective Business Communication</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5501 Keyboarding-Skill Development</td>
<td>90</td>
</tr>
<tr>
<td>BOSS 5509 Office Procedures for the 21st Century</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 5510 Document Formatting and Production</td>
<td>90</td>
</tr>
<tr>
<td>COMP 9900 Microsoft Excel for Business I</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9928 PowerPoint for Business</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9947 Windows File and Folder Concepts</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9952 Internet and Email for the Business Office</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9964 Microsoft Outlook Essentials</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9984 Microsoft Access Essentials I</td>
<td>15</td>
</tr>
<tr>
<td>WOPR 9486 Microsoft Word for Business I</td>
<td>45</td>
</tr>
</tbody>
</table>

Electives (30 Hours Minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBO 9216 Recordkeeping for the Business Office</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 4501 Business English, Level II</td>
<td>45</td>
</tr>
<tr>
<td>BOSS 5508 Advanced Office Procedures</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9921 Intro to the Internet for Office Support</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9949 Dreamweaver I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9957 Photoshop Elements I</td>
<td>15</td>
</tr>
<tr>
<td>COMP 9904 Microsoft Excel for Business II</td>
<td>45</td>
</tr>
<tr>
<td>WOPR 9995 Microsoft Word for Business II</td>
<td>45</td>
</tr>
</tbody>
</table>

Total Hours .............................................. 645-660

Exit Requirements. Successful completion of all courses with a grade of C or higher.

Typing. 35 wpm in a timed test with 90% accuracy. Minimum attendance of 80% in all courses.

Financial Assistance. The Office Receptionist Certificate Program may be eligible for financial assistance. Please consult a counselor for further information.

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:

- Use 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>COMP 9920 Using SharePoint Designer</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9928 PowerPoint for Business</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9959 Photoshop Elements</td>
<td>45</td>
</tr>
<tr>
<td>COMP 9969 Dynamic PowerPoint for Business</td>
<td>45</td>
</tr>
</tbody>
</table>

Elective Courses: Choose one of the following:

- ACBO 9208 QuickBooks Level I
- BOSS 3502 Customer Service Skills
- BOSS 4500 Keyboarding for Computers
- BOSS 5508 Advanced Office Procedures
- COMP 9904 Microsoft Excel for Business II
- COMP 9914 Desktop Publishing Advanced
- COMP 9922 Flash for Bus/Office Presentation

Total Hours: 360

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.

Learning Outcomes

1. Demonstrate competence in core skills (Math, Accounting and Technology) as applied to financial analyses
2. Use effective and suitable oral and written communications
3. Demonstrate knowledge of the functions and operations of financial markets, institutions and instruments
4. Analyze and manage risk
5. Value real and financial assets, at the personal and company level
6. Make investment decisions, incorporating the appropriate use of credit

Courses Required for the Major in Finance

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 130 (fall only) Prin of Bank Operations</td>
<td>3</td>
</tr>
<tr>
<td>BSMA 66 Bus Math</td>
<td>3</td>
</tr>
<tr>
<td>or BSMA 68 Math for Bus</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 75 Math Analysis for Bus</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 90 Advanced Algebra*</td>
<td>3–5</td>
</tr>
<tr>
<td>GNBS 119 Intro to Business</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 133 (spring only) Money &amp; Banking</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 10 or ACCT 1 Intro to Acct or Fin Acct</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>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>One elective from those listed below†</td>
<td>3</td>
</tr>
</tbody>
</table>

Fourth Semester

<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</td>
<td>3</td>
</tr>
<tr>
<td>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: 43–45

* 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, 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.

Learning Outcomes

1. Demonstrate competence in core skills (Math, Accounting and Technology) as applied to financial analyses
2. Use effective and suitable oral and written communications
3. Demonstrate knowledge of the functions and operations of financial markets, institutions and instruments
4. Analyze and manage risk
5. Value real and financial assets, at the personal and company level
6. Make investment decisions, incorporating the appropriate use of credit

Courses Required for the Certificate of Achievement in Finance

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 Fin Planning</td>
<td>3</td>
</tr>
<tr>
<td>GNBS 119 Intro to Business</td>
<td>3</td>
</tr>
</tbody>
</table>
General Business

General Business Major (AS)
This field of concentration allows students to earn the Associate Degree while partially preparing them for transfer into the Business Administration major at a four-year college or university. In addition, it prepares the student for an entry level position in any business office. Students who complete the curriculum in the major receive the Associate in Science degree in General Business.

Courses Required for the Major in General 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>ACCT 1 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2 Managerial Accounting</td>
<td>4</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>4</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*                                     | 3     |
- SPCH 1A Elements of Public Speaking*                                 | 3     |
- BSMA 68 Mathematics for Business*                                    | 3     |
- MABS 101 Spreadsheets/Bus/Excel                                      | 3     |
- SMBS 135 Ownership/Operation Sm Business                             | 3     |
- FIN 136 Intro to Financial Planning                                  | 3     |
- ECON 10 Economic History of the United States*                      | 3     |
- MATH 110A Calculus*                                                 | 4     |
- MATH 75 Math Analysis for Business*                                  | 3     |
- Additional graduation requirements                                   |       |

*Satisfies General Education Breadth 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:

Courses Required for the Certificate of Accomplishment in General 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>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>Total Units</td>
<td>10</td>
</tr>
</tbody>
</table>

Green Business

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.

Learning Outcomes

- Define the role each department within a company plays 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 Organizational Practices</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:
- ACCT 10 Introduction to Accounting                                  | 4     |
- BSMA 68 Mathematics for Business                                     | 3     |
- INTR 162 Survey of International Business                            | 3     |
- MRKT 140 Principles of Marketing                                     | 3     |
- MRKT 170 Introduction to Advertising                                 | 3     |
- MABS 60 Intro to Computer Appl. for Business                         | 3     |
- RE 181 Principles of Real Estate                                     | 3     |
- SMBS 135 Ownership and Operations of a Small Business               | 3     |
- SUPV 231 Introduction to Supervision/Management                     | 3     |
- TRTV 157 Principles of Travel and Tourism                            | 3     |
- TRTV 180 Eco-travel and Tourism                                      | 3     |
| Total Units                                                           | 15    |

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.

Learning Outcomes

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

- Describe the major factors involved in “greening” a business supply chain and the cost benefits of running a green business.
- List the major green certifications from the Federal level to the local, and describe the qualification process.
- Create a marketing plan that integrates a green target market.

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 Small Business</td>
<td>9</td>
</tr>
<tr>
<td>SMGB 8500 Achieving San Francisco Green Certification</td>
<td>9</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><strong>Total Hours</strong></td>
<td><strong>72</strong></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 Business</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: Resources and Tools</td>
<td>3</td>
</tr>
<tr>
<td>INTR 173 Export-Import</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

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

Upon completion of this major, 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 marketing 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 Mkng 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 Fundamentals of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>SMBS 135 Ownership/Operation of Small Business</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27–28</strong></td>
</tr>
</tbody>
</table>

Recommended electives: BSEN 70, 74; CS 101; PSYC 1, 26; SPCH 11, 12; 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

Upon completion of the Marketing Certificate, 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 Mkng Appl</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 148 Mkng 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><strong>Total</strong></td>
<td><strong>27–28</strong></td>
</tr>
</tbody>
</table>

Recommended electives: BSEN 70, 74; CS 101; PSYC 1, 26; SPCH 11, 12; ACCT 1 or 10.
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. Students will also be eligible to receive a Certificate of Achievement provided that they complete all courses in the Paralegal/Legal Studies Program with a letter grade of C or higher. IMPORTANT NOTE: The paralegal certificate is ONLY awarded upon completion of the general education requirements for the Associate's degree.

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. 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. Students transferring coursework completed at another school must furnish an official transcript.

Employment. Those who complete the curriculum satisfactorily are qualified for employment as paralegals in law offices, government offices, and other businesses.

Description of the Major. 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; family law; medical law; debtors' rights and creditors' remedies; corporate law; intellectual property law; immigration law; communications law; and work experience.

General Education Requirements for ABA Certification. Students must see the Paralegal/Legal Studies Program Coordinator about the general education courses that are approved by the American Bar Association ("ABA") for the Paralegal/Legal Studies Degree. Currently, the ABA does NOT accept courses approved for CCSF's General Education areas as follows:

Area A. Business Mathematics, Computer Science, Design, Microcomputer Applications for Business, and Supervision and Management

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

Learning Outcomes

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

- Write and communicate in formats acceptable in today's law offices.
- Locate, read, and analyze the law.
- Respond appropriately to issues facing today's legal professionals.
- Prepare and file pleadings in both the federal and California court systems.
- Function within a law office, use law office software, and interact professionally with clients, employers, co-workers, and third parties.

In addition, students will learn practical skills in law office software and business practice as well as receive instruction in the areas of substantive law. Writing and ethics are taught across the curriculum.

Courses Required for the Major in Paralegal/Legal Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 1 Intro to Paralegal Studies (formerly L A 51)</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>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>PLS 5 Litigation II</td>
<td>3</td>
</tr>
<tr>
<td>PLS 6 Law Office Management and Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses: Choose 12 units from the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 7 Corporate Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 9 Wills, Trusts, and Probate Administration</td>
<td>3</td>
</tr>
<tr>
<td>PLS 10 Environmental Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 11 Debtors' Rights and Creditors' Remedies</td>
<td>3</td>
</tr>
<tr>
<td>PLS 12 Family Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 13 Intellectual Property</td>
<td>3</td>
</tr>
<tr>
<td>PLS 14 Immigration Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 15 Medical Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 16 Paralegal Experience</td>
<td>3</td>
</tr>
<tr>
<td>PLS 17 Communications Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 18 Paralegal Experience</td>
<td>2</td>
</tr>
<tr>
<td>PLS 19 Paralegal Experience</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units: 36

Paralegal/Legal Studies Certificate

The program of study for the Certificate of Achievement in Paralegal/Legal Studies complies with the requirements established under current California law to become a paralegal. The program is designed to prepare students for employment as paralegals. NOTE: Paralegals may not provide legal services directly to the public except as permitted by law.

Admission. Enrollment is open to all interested students who already hold a college degree OR who have completed 30 units of general education or law-related courses with a 2.00 grade point average or higher.
at an accredited, post-secondary school PRIOR TO admission into our paralegal program. Students entering the certificate 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. Students transferring coursework completed at another school must furnish and official transcript.

Employment. Those who complete the curriculum satisfactorily are qualified for employment as paralegals in law offices, government offices, and other businesses.

Description of the Certificate. 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; family law; medical law; debtors’ rights and creditors’ remedies; corporate law; intellectual property law; immigration law; communications law; and work experience.

All courses must be taken within a 4-year period.

Learning Outcomes

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

- Write and communicate in formats acceptable in today’s law offices.
- Locate, read, and analyze the law.
- Respond appropriately to issues facing today’s legal professionals.
- Prepare and file pleadings in both the federal and California court systems.
- Function within a law office, use law office software, and interact professionally with clients, employers, co-workers, and third parties.

In addition, students will learn practical skills in law office software and business practice as well as receive instruction in the areas of substantive law. Writing and ethics are taught across the curriculum.

Courses Required for the Certificate of Achievement in Paralegal/Legal Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 1 Intro to Paralegal Studies (formerly L A 51)</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>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>PLS 5 Litigation II</td>
<td>3</td>
</tr>
<tr>
<td>PLS 6 Law Office Management and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>PLS 7 Corporate Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 9 Wills, Trusts, and Probate Administration</td>
<td>3</td>
</tr>
<tr>
<td>PLS 10 Environmental Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 11 Debtor’s Rights and Creditors’ Remedies</td>
<td>3</td>
</tr>
<tr>
<td>PLS 12 Family Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses: Choose 6 units from the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 13 Intellectual Property</td>
<td>3</td>
</tr>
<tr>
<td>PLS 14 Immigration Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 15 Medical Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 16 Paralegal Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>PLS 17 Communications Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 18 Paralegal Work Experience</td>
<td>2</td>
</tr>
<tr>
<td>PLS 19 Paralegal Work Experience</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units ........................................... 30

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.

Learning Outcomes

Upon successful completion of the program, students will be able to:

- Apply the principles and practice of real estate in California.
- Apply critical thinking and analytical skills of California real estate concepts.
- Demonstrate knowledge of California real estate contracts, disclosures and procedures.
- Demonstrate understanding and commitment to real estate ethics as outlined in business and professional code of conduct.
- Analyze and evaluate the financial suitability of real estate opportunities.
- Work in real estate office or transfer to four-year college.

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>
</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.

Learning Outcomes

Upon successful completion of the certificate, students will be able to:

• Define an overview of the basic concepts of California Real Estate.
• Apply tools learned to the California Real Estate market place.
• Demonstrate knowledge of agency and fiduciary responsibility.
• Demonstrate an understanding of real estate opportunities and risk.
• Identify and understand key real estate terms.
• Qualify to take the California Department of Real Estate State Exam.

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 189 Real Estate Economics</td>
<td>3</td>
</tr>
<tr>
<td>RE 191 Principles of Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>18</td>
</tr>
</tbody>
</table>

The six semester units in the elective courses indicated above must be completed by two real estate courses currently listed.

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 182 Escrow Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>RE 183 Real Estate Property Management</td>
<td>3</td>
</tr>
<tr>
<td>RE 187 Investment Analysis &amp;</td>
<td></td>
</tr>
<tr>
<td>Tax Consequences of Real Estate</td>
<td></td>
</tr>
<tr>
<td>RE 192 Advanced Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>RE 193 Real Estate Compute Applications</td>
<td>3</td>
</tr>
<tr>
<td>RE 194 Affordable Housing Property Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Retail Management Certificate

Retail Management Certificate

The Retail Management Certificate introduces students to the fundamentals of business, marketing, and retail. Retail experience is a plus, but is not required to successfully complete this program. The Certificate meets the requirements of the Western Association of Food Chains (WAFCL) Retail Management Certificate program.

Learning Outcomes

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

• Analyze market opportunities
• Recruit and manage people
• Manage supplier relationships
• Promote a retail business using online and offline marketing strategies
• Use the principles of consumer behavior to create a buying experience that will build loyal customers
• Analyze business profitability

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 Pass.

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 68 Mathematics of Business</td>
<td>3</td>
</tr>
<tr>
<td>or BSMA 66 Business Math</td>
<td></td>
</tr>
<tr>
<td>BSEN 74 Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td></td>
</tr>
<tr>
<td>SUPV 234 Communication for Bus Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 231 Intro to Supervision/Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>or 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 232 Org Behavior for Supervisors</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.
- 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.

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
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 these 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.

Learning Outcomes
Upon completion of the Supervision and Management Certificate, students will be able to:

- Recognize, demonstrate, and articulate an understanding of the principal of organizing, planning, directing, and leading staff.
- Apply up-to-date HRM systems, processes, and procedures by demonstrating and evaluating practices concerning recruitment and selection, managing performance for added value, maximizing employee contribution, effective employment relations, and delivering equity and fairness.
- Effectively use both verbal and non-verbal communication skills to articulate and deliver clear, concise, coherent, and persuasive messages through barriers.
- Effectively use critical thinking and problem solving processes to produce sound strategic decisions by identifying, comparing, and contrasting information logically, accurately, and quantitatively.
- Demonstrate knowledge and understanding of the challenges facing women in today's business world and the ability to analyze current social and political trends from feminist perspectives as well as the ability to synthesize feminist theory and research with contemporary social problems in order to offer effective and ethical strategies for change.

Requirements for the Certificate of Accomplishment. Students may obtain the Certificate of Accomplishment in Supervision and Management by completing the following courses with a final grade of C or higher:

Courses Required for the Certificate of Accomplishment in Supervision and Management

<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>
</tbody>
</table>
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 with 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, consulates 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, airline 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.

Learning Outcomes

Upon completion of this program students will be able to:

- Define the component industries of the travel and tourism industry and how they are interconnected
- Plan any type of travel to destinations throughout the world
- Analyze the methods businesses in the travel and tourism industry differentiate themselves to be competitive
- Design a detailed time sensitive day by day itinerary
- Apply the principles of thinking geographically, qualifying the destination and qualifying the client

To successfully complete this Major every class must be completed with a grade of C or better.

Courses Required for the Certificate of Accomplishment in Travel and Tourism

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRTV 157 Principles of Travel &amp; Tourism</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 159 Adv. Principles of Travel &amp; Tourism</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 160 Transportation Field Work.</td>
<td>1</td>
</tr>
<tr>
<td>TRTV 181 Business Travel</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 182 Tour Management</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TRTV 171A Destinations: Cities I.</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 171B Destinations: Cities II</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 172 Destinations: Natural Wonders</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 173 Destinations: Historical &amp; Archaeological</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 174 Destinations: Cruises</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 175 Destinations: Hotels, Resorts, &amp; Spas</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 176 Destinations: Great Trips</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 180 Destinations: Eco-Travel &amp; Tourism</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units ........................................ 28

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

Upon completion of this certificate students will be able to:

- Define the component industries of the travel and tourism industry and how they are interconnected
- Plan any type of travel to destinations throughout the world
- Analyze the methods businesses in the travel and tourism industry differentiate themselves to be competitive
- Design a detailed time sensitive day by day itinerary
- Apply the principles of thinking geographically, qualifying the destination and qualifying the client

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

<table>
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<tr>
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</tr>
<tr>
<td>TRTV 159 Adv. Principles of Travel &amp; Tourism</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 160 Transportation Field Work.</td>
<td>1</td>
</tr>
<tr>
<td>TRTV 181 Business Travel</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 182 Tour Management</td>
<td>3</td>
</tr>
<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>TRTV 171A Destinations: Cities I.</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 171B Destinations: Cities II</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 172 Destinations: Natural Wonders</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 173 Destinations: Historical &amp; Archaeological</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 174 Destinations: Cruises</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 175 Destinations: Hotels, Resorts, &amp; Spas</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 176 Destinations: Great Trips</td>
<td>3</td>
</tr>
<tr>
<td>TRTV 180 Destinations: Eco-Travel &amp; Tourism</td>
<td>3</td>
</tr>
</tbody>
</table>

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
Course Units
TRTV 157 Prin of Travel and Tourism ............... 3
TRTV 159 Adv Prin Travel and Tourism ............... 3
TRTV 180 Ecological Travel ................................ 3
TRTV 181 Business Travel ................................ 3
TRTV 182 Tour Management ................................ 3

A minimum of 2 units of any of the following courses:
TRTV 155 Meeting and Event Planning .................. 1
TRTV 160 Transportation Field Work* .................. 1
MABS 202 PowerPoint .................................... 3

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

Upon completion of this certificate, students will be able:

• Classify the major types of destinations and the profiles of the travelers that visit them
• Plan and write itineraries for any destination
• Analyze the process of 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:
Course Units
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, & Spas ................. 3
TRTV 175 Destinations: Hotels, Resorts, & Spas ........ 3
TRTV 176 Destinations: Great Trips ....................... 3

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:
Course Units
GNBS 125 Green and Sustainable Business ............... 3
TRTV 172 Destinations: Natural Wonders .................. 3
TRTV 173 Destinations: Historical & Archaeological ........ 3
TRTV 180 Eco Travel & Tourism ............................. 3

A minimum of 3 units of the following courses:
TRTV 157 Principles of Travel & Tourism ................. 3
TRTV 159 Adv. Principles of Travel & Tourism ............ 3

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
Advis: 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
Advis: 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: MABS 60 and BSMA 66 or 68
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 Levels 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, 9208 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)
Advisory: 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)
Advisory: ESL Levels 5/6, ACBO 9211
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)
Advisory: ACBO 9206 or equivalent, COMP 9245, 9905 or equivalent,
ESL Level 6 or above
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
a company from a manual accounting system.

ACBO 9213. QuickBooks, A/P, & A/R (15 hrs)
Advisory: COMP 9245, 9905, 9947 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)
Advisory: 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 (45 hrs)
Advisory: 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)
Advisory: ESL Level 5/6
Basic business operations and record keeping skills for office support.
Topics include record keeping procedures: cash control systems, ana-
lyzing budgets and bank reconciliations. The integration of Microsoft
Excel is introduced.

Business English

Credit, Degree Applicable Courses:

BSEN 70. Fundamentals of English Grammar and Composition (4)
Lec-5 P/NP available
Advisory: 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 P/NP available
Advisory: 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 busi-
ness communications; experience in using correct, forceful English in
business documents. CSU

BSEN 76. Business and Technical Report Writing (3)
Lec-3 P/NP available
Advisory: 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 writ-
ing informal, formal, and technical reports which describe clearly,
solve problems, present ideas persuasively, and evaluate alternatives.
Computers and word processing and editing programs are available as
writing tools. CSU

Noncredit Courses:

BUSG 9901. Business Vocabulary (45 hrs)
Advisory: 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)
Advisory: BUSG 9903
Analysis of communication processes and development of skills in
interpersonal and telephone interviewing. Includes practice on stan-
dardized 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)
Advisory: 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 orga-
nized, 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)
Advisory: 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)
Advisement: 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
Lect 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)
Lect 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 to meet first-semester requirements. Counselors may require students to take BSMA H instead of BSMA J or G.

BSMA J. Elementary Mathematics (2)
Lect 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)
Lect 5
Advisement: 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, markdown and markdown, depreciation methods, simple and compound interest, present value and annuities, installment sales, rules of 78, loan amortization, financial statements of different business organizations, various inventory methods, insurance, bank reconciliation, and the use of graphs and tables. CSU

BSMA 68. Mathematics of Business (3)
Lect 3
Advisement: 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, markdown and markdown, 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)
Lect 3
Prerequisites: 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)
Lect 3
Prerequisites: 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
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)
Lect 3, Lab 3
P/NP available
Advisement: 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 with no more than one error a minute
Advise: 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 resumes to 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 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
Advise: ESL 72 or 150 or placement in ENGL 92 or ESL 160
Not open to students who have completed WDPR 80

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 email. CSU/UC

MABS 40. Internet Explorer and Outlook Email (3)
Lec-3, lab-3  P/NP available
Advise: 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, set up 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  P/NP available
Advise: 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 email. CSU/UC

MABS 61. Advanced Microsoft Office for Windows (3)
Lec-3, lab-3  P/NP available
Prereq.: MABS 60 or demonstration of MABS 60 exit skills
Creating spreadsheet, database, word processing, and presentation projects using advanced features in Microsoft Office. Preparing documents for the World Wide Web by utilizing Office’s built-in tools. CSU

MABS 67. Database for Business/Access for Windows (3)
Lec-3, lab-3  P/NP available
Advise: 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 88. 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 90. iPad for Business (1)
Lec-18 (total hours), field trips  P/NP Available
Introduction to the concepts and skills of using an iPad for business. Topics include using built-in tools such as Safari and Mail; Apple apps such as Pages, Keynote and Numbers; third-party apps such as Office apps, PDF management apps and clouds computing services. CSU

MABS 101. Spreadsheets for Business/Excel (3)
Lec-3, lab-3  P/NP available
Advise: 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 problem using computers. CSU

MABS 202. PowerPoint Presentations (3)
Lec-3, lab-3  P/NP available
Advise: 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  P/NP available
Prereq.: MABS 35 or the ability to type at least 35 words a minute with no more than one error a minute
Advise: 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  P/NP available
*Advise: MABS 60 (knowledge of Microsoft Windows and Microsoft Office)*
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
*Advise: 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
*Advise: 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

Noncredit Courses:

BOSS 2500. Business Math With Spreadsheets I (45 – 90 hrs)
*Advise: 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)
*Advise: 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)
*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 4501. Business English II (45 hrs)
*Advise: 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)
*Advise: ESLN 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)
*Advise: BOSS 4500 or equivalent, ESLN 3800*
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)
*Advise: 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)
*Advise: 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)
*Advise: 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 useful for data entry, accounting, administrative and on-site support positions requiring numeric input.

BOSS 5507. Data Entry/10 Key (90 hrs)
Build data entry skills using the ten-key numeric keypad. The use of simulated business projects enhances the learning and development of effective techniques that improve speed and accuracy.

BOSS 5508. Advanced Office Procedures for the 21st Century (45 hrs)
Prereq.: BOSS 5509
Advanced training in the business office. Topics include ethical and behavioral practices, conducting job searches, coping with stress, strategies for advancement, and perform office procedures in a legal office through a job simulation.

BOSS 5509. Office Procedures for the 21st Century (45 hrs)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: TRST 1422, BOSS 5500
A course in basic computer literacy.

COMP 9000. Supervised Training of Computer Applications for Business (90 hrs)
An instructor-supervised computer lab for currently enrolled Business Department students. Students will work independently on assignments given in other Business Department credit and noncredit classes.

COMP 9245. Windows Essentials for MS Office Applications (30 hrs)
Advised: ESLN 5/6
An introductory course on computer concepts and techniques for the novice computer user. Students will build knowledge to better understand the function and use of the Windows operating system as it applies to managing 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 I (15 hrs)
Advised: COMP 9905 or Equivalent; ESL Levels 5/6
Microsoft Excel Essentials I 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)
Advised: 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)
Prereq.: COMP 9885
Advised: 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)
Advised: 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)
Advised: 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 9899
This course introduces the student 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: ABE 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 9899
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 and 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
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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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 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)
Advised: 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)
Advised: 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)
Advisement: 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)
Advisement: 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)
Advisement: COMP 9909, 9910, 9921, 9928, 9936; WDPR 9995, or equivalent; ESL Level 6 or above, Keyboarding 35 wpm, Office Technology, Clerical Keyboarding, or Document Production
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)
Advisement: 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)
Advisement: 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)
Advisement: 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)
Advisement: 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)
Advisement: 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)
Advisement: 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)
Advisement: 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)
Advisement: 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)
Advisement: COMP 9925, 9245, 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)
Advisement: 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)
Advisement: 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)

_ADVISE: 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)

_ADVISE: 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)

_ADVISE: 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 II (45 hrs)

_ADVISE: 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)

_ADVISE: 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)

_ADVISE: 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)

_ADVISE: ESL 6+, COMP 9245, or COMP 9905, or COMP 9889

A hands-on business lecture and lab course introduces the business student to concepts beyond those taught in a basic PowerPoint course. Business students can use the concepts to dynamically enhance their business PowerPoint presentations for greater audience impact.

COMP 9971. Microsoft Visio for Business (45 hrs)

_ADVISE: 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)

_ADVISE: 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)

_ADVISE: 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, form-filling business letters, creating and editing worksheets and databases, PowerPoint presentations, and additional hands-on simulated projects.

COMP 9976. Microsoft Office Applications II (45 hrs)

_ADVISE: 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

_ADVISE: 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)

_ADVISE: 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)

_ADVISE: 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 9990. Word Processing (Multi-Level) (90 hrs)

_ADVISE: 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)

_ADVISE: 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)

_ADVISE: 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.
Business 163

WOPR 9994. Word Processing - Level 3 (15 hrs)
Advise: WOPR 9993
Advanced features and techniques of word processing including sorting, styles, tables, borders, calculating, and mail merge.

WOPR 9995. Microsoft Word for Business II (45 hrs)
Prereq.: WOPR 9946
Advise: ESL Level 5/6
Students learn to create custom documents, tables, watermarks, and insert WordArt, and text boxes. Students create a data source and learn to create form letters and mailing labels to use with a mail merge.

WOPR 9996. Microsoft Word for Business III (45 hrs)
Prereq.: WOPR 9995
Advise: ESL Level 5/6
Students learn to create custom documents containing a table of contents, sections, index references and an index. Students create macros, fill-in forms, master documents, subdocuments and outlines.

WOPR 9997. Word Processing - Special Projects (45 hrs)
Prereq.: WOPR 9996
Advise: ESL Level 5/6
Students learn to perform different topics like a mail merge using custom documents that they have created. Students learn to use a table of contents, sections, indexing, and the outline feature.

WOPR 9998. Word: Mail Merge (5 hrs)
Advise: WOPR 9486 or equivalent, ESL Level 6+
Course introduces advanced concepts of Microsoft Word’s Mail Merge feature. Create customized documents such as letters, envelopes and reports. Advanced skills are taught through instructor-led and self-paced instruction.

WOPR 9999. Word: Styles and Macros (5 hrs)
Advise: WOPR 9486 or equivalent, ESL Level 6+
Course introduces intermediate and advanced concepts of Microsoft Word’s Styles and Macros features. Advanced skills are taught through instructor-led and self-paced instruction.

WOPR 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

WOPR 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

WOPR 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

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 ESL 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, field trips
P/NP Available
Advise: ENGL 93 or placement in ENGL 96
Marketing execution in an international environment. Impact of cultural, economic, legal, and political environments on creating, pricing, promoting, and distributing products/services. Role of global trade organizations on international marketing strategy. 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, website 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

Marketing

Credit, Degree Applicable Courses:
MRKT 122. Professional Selling (3)
Lec-3
P/NP available
Advise: ENGL 93 or 160; or placement in ENGL 96 or ESL 170
The fundamentals of selling in a professional environment. Students learn to identify target markets, prospect for clients, write a sales plan, develop a sales strategy, identify and resolve conflicts of interest, make an oral presentation, respond effectively to objections, ask for a commitment, and manage a sales force. CSU

MRKT 140. Principles of Marketing (3)
Lec-3
Required for all Marketing and Fashion Merchandising majors
A general survey of types and functions of marketing institutions, products and services, channels of distribution, trends in marketing practices, and a study of consumer behavior. CSU

MRKT 145. Microcomputer Marketing Applications (3)
Lec-3, lab-2
Introduction to and integration of word processing, graphic presentation, and Internet using Microsoft Office Professional software applications for electronic marketing. Experience in creating a word processed sales letter, a document to market services, a multiple-page sales report, and a newsletter; an electronic slide presentation targeting potential customers; an Internet survey; and Web pages, including a marketing product report, marketing plan, and salesperson's profile. CSU

MRKT 148. Marketing Management and Supervision (3)
Lec-3
Supervisory skills and management techniques for middle management personnel in marketing businesses and industry. Topics include understanding and motivating people, leading others, communicating, delegating, training, decision-making and personal development. CSU
MRKT 150. Consumer Behavior (3)
Lec-3  P/NP Available
Introduction to the core concepts and applications of contemporary consumer behavior. Consumer behavior topics include needs and motives, personality, perception, learning, attitudes, cultural influence that lead to understanding consumer decision-making and behavior. Explores the impact of consumer behavior on marketing strategies and promotional tactics. CSU

MRKT 170. Introduction to Advertising (3)
Lec-3  
*Required for all Marketing and Fashion Merchandising majors*
Exploration of the role of advertising in the marketplace. Topics include elements of a successful advertising campaign and targeting an audience. Also includes the procedures needed for advertising production, such as efficient planning, selection and coordination of media, sales promotion, and product display. CSU

### Paralegal/Legal Studies

**Credit, Degree Applicable Courses:**

PLS 1. Introduction to Paralegal Studies (3)
Lec-3  
**Prereq:** ENGL 96 or placement in ENGL IA
What is a paralegal? This course will answer this question and cover the following: the American legal system, the role of the paralegal, the 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 IA
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. Debtors' Rights and Creditors' Remedies (3)
Lec-3  
**Prereq.:** PLS 3, 4, 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/UC

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/UC

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
Advise: 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
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
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
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
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: Maximum credit: 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,
development and leadership. Focus on personal components such as: organizational structure, interpersonal behavior as related to the administration of a small business enterprise. Emphasis on formulating a business plan, preparing for sale to gain the most benefits while being fair to the market of investors. Economic advantages and disadvantages of various types of 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, 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 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 123. Ownership and Operations of a Small Business (3)
Lec-3
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 9402. Small Business Bookkeeping (54 hrs)
Advise: 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 9406. 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 9408. 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 9409. 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 9412. Successful Sales (3 hrs)
An overview of successful sales techniques including: telemarketing, tracking sales prospects, sales presentations, and successful closings.

SMBU 9423. 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 9426. 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 9456. 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 9457. 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 9458. The Telephone as a Sales Tool (3 hrs)
Phone answering techniques to gain customers and increase sales.

SMBU 9459. 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 9460. 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 9461. 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 9462. Supervising Employees (3 hrs)
A discussion on employee training programs for the small business. An overview of cost effectiveness, in house training vs. outside training.

SMBU 9463. 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 9464. Designing a Financial Future (12 hrs)
An in-depth look at the objectives, components, implementation and evaluation of a well-designed marketing strategy.

SMBU 9465. 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 9466. Staffing Your Business (90 hrs)
A discussion on employee training programs for the small business. An overview of cost effectiveness, in house training vs. outside training.

SMBU 9467. 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 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. 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 9470. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9471. Pricing a Product or Service (3 hrs)
A discussion on employee training programs for the small business. An overview of cost effectiveness, in house training vs. outside training.

SMBU 9472. Finding the Right Location (3 hrs)
An overview of the process of selecting an optimal location for a new business. Advantages of inventory control in terms of profits and space needs.

SMBU 9473. 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 9474. 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 9475. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9476. 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 9477. 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 9478. 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 9479. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9480. 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 9481. 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 9482. 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 9483. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9484. 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 9485. 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 9486. 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 9487. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9488. 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 9489. 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 9490. 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 9491. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9492. 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 9493. 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 9494. 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 9495. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9496. 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 9497. 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 9498. 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 9499. Marketing Strategy (3 hrs)
An overview of the concepts, types and techniques of selling as well as examining of an advertising plan and budget.

SMBU 9500. 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 9501. 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 9502. 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 9777. Buying a Business (6 hrs)
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 9778. 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 9779. 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 9780. 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, sale 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 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, management 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 in business, government, nonprofits, education, and community-based organizations. 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.

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  P/NP only  
ADVICE: CONSENT OF THE TRAVEL AND TOURISM PROGRAM ADVISOR Repeat: Maximum credit: 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 Australiasia 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 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 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: WKEX 301, 302, and 303 combined, max. credit: 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: WKEX 301, 302, and 303 combined, max. credit: 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: WKEX 301, 302, and 303 combined, max. credit: 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: WKEX 805, 806, and 807 combined, max. credit: 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: WKEX 805, 806, and 807 combined, max. credit: 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: WKEX 805, 806, and 807 combined, max. credit: 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.

Mission Statement
Within the Continuing Student Counseling Department, we strive to assist students to develop skills to succeed in college, graduate, earn certificates, transfer, and to create and to maintain meaningful careers. Additionally, we endeavor to assist students to reflect on and articulate their thoughts, values, skills, and interests, and to contribute to society in meaningful ways. To this end, our program of counseling services and courses will guide students to:

Learning Outcomes
• Apply self-assessment information to academic and career exploration.
• Construct and take proactive steps to manage and overcome academic and personal obstacles.
• Compare and contrast college majors and transfer institutions thoroughly before making a decision.
• Identify and analyze their rights and responsibilities.
• Investigate ways to contribute to society.
• Apply research skills while taking action to create academic, career, and life options.
• Recognize and value diversity within themselves and among others.
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 resumé types as well as keyword scannable resumés 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
Coreq.: CHEM 101A
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 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.

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.
of chemistry. Also satisfies the recommended prerequisite for PHYS 12 and M B 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
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
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
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
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
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 and advising; AND MATH 60 or placement in any MATH course higher than MATH 50
Students who are majoring in engineering, except chemical engineering, should enroll in CHEM 103A. CHEM 101A-101B are the standard college courses required in many curricula. CHEM 101A may be substituted for CHEM 103A. Students who have passed CHEM 103A may not receive credit for CHEM 101A. Stoichiometry, solubility, solutions, gas behavior, thermochemistry, atomic structure, periodic table, chemical bonding, molecular structure, solids and liquids, and an introduction to chemical equilibrium. CSU/UC/C-ID CHEM 110; C-ID CHEM 120S (CHEM 101A+101B)

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 sat
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 110. Chemistry for Nonscientists (3)
Lec-3, field trips P/NP available
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 P/NP available
Prereq.: Completion/concurrent enrollment in CHEM 110
Laboratory practice in modern and commonly used chemical techniques. CSU/UC

CHEM 205. Quantitative Analysis (4)
Lec-2, lab-6
Prereq.: CHEM 101B
Recommended that CHEM 205 be taken soon after 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 second semester of a one-year course for students not majoring in chemistry or biochemistry. 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/UC

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 who major 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 I (2)
Lab-6
Prereq.: A lecture course equivalent to CHEM 212A
CHEM 212L is open to students who have previously passed the lecture portion of majors-level first-semester organic chemistry and who now need to satisfy the laboratory requirement. Students who have passed CHEM 212A or 208A may not receive credit for CHEM 212L.
The laboratory component of CHEM 212A. CSU

Child Development and Family Studies
Office: (New Building) Multi-Use Bldg. MUB 249
Phone Number: (415) 239-3172
Web Site: www.ccsf.edu/cdev

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 adult understanding of 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, 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.

Learning Outcomes
Upon completion of the Associate of Science degree in Child Development and Family Studies, students will be able to:
- Understand and describe stages of child growth and development, including brain development, sensory motor development, cognitive development, language development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures, inclusion and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in early childhood settings.
- Understand and describe the fundamental importance of play, sensory learning, inclusion and nurturing and responsive relationships.
- Compare and apply practices that promote professional and personal integrity among children, families, staff and colleagues including reflective practice, collaboration and teamwork strategies.
- Design and apply cross-cultural skills and knowledge to develop curriculum, communicate with families, build relationships with families and support the positive identity development of culturally diverse children and families.
- Describe safe and healthful environments in early education settings and in the community.
- Evaluate and demonstrate formal and informal observations and assessments of children to document development, play, growth and learning.

Courses required for the major in Child Development and Family Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COEV 65 Orientation to ECE Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>COEV 67 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>COEV 92 Health, Safety, and Nutrition in Early Childhood Programs</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 72 Supervised Field Experience in Early Childhood</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Electives (6 units):
- 6 units of Child Development (CDEV) coursework......6
- Total..................................................30

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.

Early Childhood Education Major (AS-T)*

*This program is pending state approval.

Please refer to the online version of the Catalog.

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:
- Understand and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in a range of settings for children and youth.
- Identify the basic competencies and general regulatory requirements needed to administer a child development program.
- Define the components 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 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 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 90 Early Childhood Admin I</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 91 Early Childhood Admin II</td>
<td>3</td>
</tr>
</tbody>
</table>
- 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.
Learning Outcomes
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>Complete 9 Units from the following:</td>
<td></td>
</tr>
<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>
<tr>
<td>CDEV 74 Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 77 Diverse LGBT Issues</td>
<td>3</td>
</tr>
<tr>
<td>IDST 80A Diversity: Racism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80C Diversity: Sexism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80D Diversity: Heterosexism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80E Diversity: Ableism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80F Diversity: Classism</td>
<td>5</td>
</tr>
<tr>
<td>IDST 80G Diversity &amp; Social Justice: Transphobia</td>
<td>5</td>
</tr>
<tr>
<td>IDST 81B Diversity: Anti-Semitism/Anti-Arabism</td>
<td>1</td>
</tr>
<tr>
<td>IDST 81A Diversity: Ageism and Adultism</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units ........................................... 9

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.

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

- Identify and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in infant/toddler settings.
- Differentiate the critical elements of developmental needs for infants and toddlers
- Apply an understanding of infant and toddler development when caring for infants and toddlers.
- 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 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 Curriculum</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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 61 Infant/Toddler Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 62 Infant/Toddler Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 61 Relationship-based Infant Toddler Care</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units ........................................... 18

Child Development: Practitioner Certificate

A "Certificate of Achievement" will be granted upon successful completion of the required number of units in course work. A grade "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.

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

- Understand and describe stages of child growth and development, including brain development, sensory motor
development, language development, cognitive development, physical development and social-emotional development.

- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in a range of settings for children and youth.
- Demonstrate depth of knowledge in one specific area of early childhood curriculum or programs.
- Define best practices and professional competencies in either Health, Safety and Nutrition; Observation and Assessment; or Interactions with Children.

Courses Required for the Certificate of Achievement in Child Development: Practitioner

Course | Units
--- | ---
CDEV 53 Child Growth and Development | 3
CDEV 65 Orientation to ECE Principles and Practice | 3
CDEV 66 Intro to Early Childhood Curriculum | 3
CDEV 67 The Child, Family, and Community | 3

Elective Courses: 3 units required from following CAP 8 courses:

CDEV 68 Interactions with Children | 3
CDEV 73 Observing and Assessing Young Children | 3
CDEV 92 Health, Safety and Nutrition In ECP | 3

Elective Courses: 3 units required from following depth courses:

CDEV 64 Intro to Stress and Coping in ECE | 3
CDEV 98 Sensory-Motor Development and Activities | 3
CDEV 106 Exploring Science in ECP | 3
CDEV 107 Introduction to Child Nutrition | 3
CDEV 108 Communicating with Parents and Guardians | 3
CDEV 110 Jumpstart and Preschool Children | 3

Total Units | 18

---

Child Development: Pre-Teacher Certificate

A “Certificate of Accomplishment” will be granted upon completion of the required number of units of coursework. A grade of “C” or better is required in all certificate courses.

Learning Outcomes

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

- Understand and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in K-12 settings.
- Identify teaching strategies for engaging diverse learners and facilitating the success of K-12 students.
- Examine the role of the K-12 teacher, common standards, the pathway to teaching K-12 and core educational issues like bilingual education and educational equity.

Courses Required for the Certificate of Accomplishment in Child Development: Pre-Teacher

The Pre-Teacher Certificate requires completion of 15 units from the courses listed below:

Course | Units
--- | ---
CDEV 53 Child Growth and Development | 3
CDEV 67 The Child, the Family & the Community | 3
CDEV 71 Elementary Supervised Field Experience | 3
CDEV 75 High School Supervised Field Experience | 3
CDEV 150 Orientation to Education | 3

Elective Courses: 3 Units Required from the Following Courses:

CDEV 120 Special Education K-12 | 3
P SC 11 Physical Science | 3
P SC 11L Physical Science Laboratory | 1
LERN 53A Test Prep: Standard Exams-CBEST Engl | 0.5
LERN 53B Test Prep: Standard Exams-CBEST Math | 0.5
LERN 53C Test Prep: Standard Exams-CSET Engl | 0.5
LERN 53D Test Prep: Standard Exams-CSET Math | 0.5

Total Units | 15

---

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.

Learning Outcomes

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

- Understand and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in early childhood settings.
- Analyze and examine the impact of federal and state policies on children and families and advocacy strategies in the field of early childhood education.

Courses Required for the Certificate of Achievement in Child Development: Professional Development and Advocacy

Course | Units
--- | ---
CDEV 53 Child Growth and Development | 3
CDEV 65 Orientation to ECE Principles and Practice | 3
CDEV 66 Intro to Early Childhood Curriculum | 3
CDEV 67 The Child, Family, and Community | 3

Area of Specialization: Professional Development and Advocacy

Elective Courses from the following (at least 1 unit):

CDEV 41B Mentor Teacher Seminar | 5–1
CDEV 41C Mentor Director Seminar | 5–1
CDEV 41D Professional advising-CDEV Permit | 1
CDEV 41L Advocacy and Professional Standards | 1
CDEV 86 Advanced Supervised Field Experience | 3
LBCS 94A-C Labor Relations in Childcare | 1-3

Elective Courses from the following (3-5 units):

CDEV 41M Substitute Teaching In ECE Programs | 1
CDEV 41U Dual Language Learning in EC | 1
Upon completion of this certificate, students will be able to:

- Understand and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in a range of settings for children and youth.
- Recognize and describe the unique characteristics of child development settings for older, school-age children in out-of-school time settings.
- Examine best practices and integrate core school-age development competencies into programming elements.

Learning Outcomes

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.

Courses Required for the Certificate of Achievement in Child Development: School-Age Care Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CDEV 44 Environ Rating Scale Family Child Care</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 45 ITERS &amp; ECERS Rating Scales</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 46 Teacher Child Interactions Using CLASS</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 80 Literacy Development - School Age Child</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 81 Early Literacy Development - Preschool</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 87 Promoting Social Emotional Competence</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 94 Literacy Development in Early Childhood</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 105 Superv Adult in Early Childhood Program</td>
<td>2</td>
</tr>
<tr>
<td>CDEV 111-113 Work Exp in Child Development</td>
<td>1-3</td>
</tr>
<tr>
<td>ESL 51A ESL for Child Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 18

Child Development: School-Age Care 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.

Learning Outcomes

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

- Understand and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in a range of settings for children and youth.
- Examine and articulate the impact of violence and trauma on children and families.
- Assess 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 Curriculum</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>
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</tbody>
</table>

Area of Specialization: Violence Intervention

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 101 Violence Intervention Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 72 Supervised Field Exp in Early Childhood</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 18

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.

Learning Outcomes

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

- Understand and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- 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 Develop</td>
<td>3</td>
</tr>
<tr>
<td>or CDEV 97 School-Age Child Growth &amp; Development</td>
<td>3</td>
</tr>
<tr>
<td>CDEV 67 The Child, 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>
Electives: Students must complete at least 3 units from the following courses:

- IDST 80A Diversity: Racism .......................................... 5
- IDST 80C Diversity: Sexism .......................................... 5
- IDST 80D Diversity: Heterosexism ............................... 5
- IDST 80E Diversity: Ableism ......................................... 5
- IDST 80F Diversity: Classism ........................................ 5
- IDST 80G Diversity & Social Justice: Transphobia .......... 5
- IDST 81B Diversity: Anti-Semitism/Anti-Arabism .......... 1
- IDST 81A Diversity: Ageism and Adultism ................. 1
- CDEV 99 Sensory Process Disorder in Children ........... 1
- CDEV 121 AD/HD ....................................................... 1
- CDEV 122 Social Emotional Disturbance .................... 1
- CDEV 123 Learning Disabilities ................................. 1
- CDEV 124 Individualized Education Plans ................. 1
- CDEV 125 Children’s Mental Health .......................... 1

Electives: Students must complete at least 3 units from the following courses:

- ADMJ 51 Juvenile Procedures ....................................... 3
- ADMJ 59 Organized Crime and Gangs ......................... 3
- CDEV 95 School-Age Curriculum ............................... 3
- CDEV 97 School-Age Development (If not counted as Core Course) ................................................................. 3
- CDEV 100 Violence and Its Impact on Children and Their Families ................................................................. 3
- HLTH 38 Trauma Response and Recovery .................... 3
- HLTH 67 HIV/STI Prevention ....................................... 3
- HLTH 116 Conflict Resolution Skills in the Healthcare Work Place ................................................................. 1
- HLTH 30 Drugs and Society ......................................... 3
- IDST 54 Politics of Sexual Violence ............................ 3
- WOMN 55 Ending Sexual Violence-Peer Educators ....... 3
- LERN 68 Career Coaching for Youth Workers ............... 3

Total Units ................................................................. 21

**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.”

**Courses Required for the Certificate of Achievement in Special Education: Early Intervention or K-12 Focus**

**Option 1: Early Intervention Focus**

**Learning Outcomes**

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

- Understand and describe stages of child growth and development, including brain development, sensory motor development, language development, cognitive development, physical development and social-emotional development.
- Examine the role of families and communities in the lives of children and youth, including secure relationships, community resources, diverse family structures and the development of a community commitment to social justice.
- Describe developmentally appropriate practice and diverse philosophical approaches in early childhood settings.

**Course** | **Units**
--- | ---
CDEV 67 Child, Family Community ........................................ 3
CDEV 97 School-Age Child: Growth and Development ........... 3
CDEV 150 Orientation to K-12 Education ............................ 3
CDEV 120 Special Education K-12 ...................................... 3

**Required Electives (6 units from the following)**

- CDEV 96 Understanding Children with Difficult Behaviors in Early Childhood Programs ........................................ 3
- CDEV 4IT Early Care for Children with Autism .................... 1
- CDEV 99 Sensory Processing Disorder in Children ........... 1
- CDEV 121 Children with AD/HD .................................... 1
- CDEV 122 Social Emotional Disturbance ........................ 1
- CDEV 123 Learning Disabilities .................................... 1
- CDEV 124 Individualized Education Plans ........................ 1
- CDEV 125 Children’s Mental Health ............................... 1
- AMSL 1A Elementary Sign Language ............................ 3

Total Units ................................................................. 18

**Introduction to Child Development Careers Noncredit Certificate**

Entry level jobs in child development are available for English language learners and those with lower levels of basic skills. In-home caregivers, nannies, family childcare providers and teacher aides are often recruited based on proficiency in languages other than English.
cultural competency and a genuine desire to work with young children.

Parents, individuals exploring careers with children and current non-credit students benefit when child observation opportunities in college-level program are paired with vocational ESL course and basic skills level courses that focus on the specific vocabulary and language needs of those working with children.

This paired certificate between the ESL, Transitional Studies and Child Development Departments allows for non-credit students to enroll in courses that facilitate direct interactions with children, exposure to children in group settings and observations of developmental ages and stages paired with language and literacy development in English.

Learning Outcomes

Upon successful completion of this program a student will be able to:

- Orally describe five key components of group setting for young children.
- Utilize 50 common English vocabulary words used in the CDEV field.
- Define several differences between the ages and stages of development in young children.
- Assess self-interest in continuing coursework in the field.

This non-credit certificate functions as the first rung of the career ladder for those interested in working with children. The next step would include enrollment in bi-lingual credit CDEV courses paired with ESL classes or credit classes paired with basic skills level courses and then the full complement of credit instruction leading to certification.

Courses Required for the Certificate of Completion in Introduction to Child Development

**Course** | **Hours**
--- | ---
CDEV 8101 State Preschool Program | 72
or CDEV 8100 Child Observation | 54
or CDEV 8002 Parents and Infants | 54
or CDEV 8003 Infant Development | 54

AND

ESLV 3833 Vocational ESL for Child Development | 90
or ESLV 3834 Vocational ESL for Child Dev. | 90
or ESLV 4833 Vocational ESL for Child Dev | 45
or TRST 1322 Academic Reading and Writing | 90

Total Hours | 99-162

Announcement of Courses

**Child Development**

**Credit, Degree Applicable Courses:**
CDEV 41-42-43. Selected Topics in Child Development (1-1-2-3)
Lec-1, 2, 3, field trips P/NP available
Investigation in depth of selected topics in Child Development. CSU

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. Starting A Large Family Child Care or Center
CDEV 41F. Serving Children with Special Needs in Family Childcare

CDEV 41G. Communicating with Families in Family Child Care
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. Environ Rating Scale Family CC (1)
Lec-1
Overview of the Family Child Care Environmental Rating Scale (FCCERS) for Family Child Care Providers in multi-age groupings. Family Child Care Providers face increasing mandated use of standardized environmental rating scales. This course is designed to support current practitioners in using the Family Child Care Environment Rating Scale-Revised (FCCERS-R) in family child care programs. CSU

CDEV 45. ITERS & ECERS Rating Scales (1)
Lec-1
Early Care and Education programs face increasing mandated use of standardized environmental rating scales. This course is designed to support current practitioners in using the Early Childhood Environmental Rating Scale-Revised Edition (ECERS-R) and the Infant Toddler Environmental Rating Scale-Revised Edition (ITERS-R). CSU

CDEV 46. Teacher-Child Interactions in Early Care and Education Using the Classroom Assessment Scoring System (CLASS) (1)
Lec-16 (total hrs)
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)
Lec-3
*Advis: ESL 130 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, investigative 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
*Advis: ESL 130 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 theo-
CDEV 62. Infant/Toddler Care in Group Settings (3)
Lec-3
Add: ESL 130 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
Add: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Overview of theories, issues, concerns and concepts related to the origins of stress; exploration of stress reduction techniques and coping strategies designed for young children and teachers in early childhood and elementary school programs. CSU

CDEV 65. Orientation to ECE Principles and Practice (3)
Lec-3
Add: ESL 130 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
Add: ESL 130 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
Add: ESL 130 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
Add: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Children’s interactions and their relationship with teachers; dynamics of social interaction in the context of child growth and development; motivation and management of children’s social behavior; working in childcare settings; current trends in 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
Add: ESL 130 (or Placement in ESL 140), or Placement in ENGL 92
Repeat: CDEV 71, 72, 75, 78, 111, 112, and 113 combined, maximum credit: 16 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-admissions 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
Add: ESL 130 (or Placement in ESL 140), or Placement in ENGL 92
Repeat: CDEV 71, 72, 75, 78, 111, 112, and 113 combined, maximum credit: 16 units
A demonstration of early childhood teaching competencies under guided supervision. Practical classroom experiences linking theory and practice, professionalism, and comprehensive understanding of children and families. Child centered, play-oriented teaching, learning, assessment and curriculum emphasized as students design, implement and evaluate experiences for development and leaning for all young children. CSU

CDEV 73. Observing and Assessing Young Children (3)
Lec-3
Add: ESL 130 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
Add: ESL 130 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
Add: ESL 130 (or Placement in ESL 140), or Placement in ENGL 92
Repeat: CDEV 71, 72, 75, 78, 111, 112, and 113 combined, maximum credit: 16 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
Advise: 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
Advise: ESL 130 (or placement in ESL 140) or placement in ENGL 92
Repeat: CDEV 71, 72, 75, 78, 111, 112, and 113 combined, maximum credit: 16 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
Advise: ESL 130 (or placement in ESL 140) 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)
Advise: ENGL 93 or 94; or ESL 160 or 82 or placement in ENGL 96 or ESL 170
Strategies for teacher 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)
Advise: 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 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
Advise: ESL 130 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
Advise: ESL 130 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
Advise: ESL 130 or ENGL 91 or placement in ESL 140 or ENGL 92
A course focusing on the business and administrative aspects of operating early childhood education programs. Explores regulatory requirements including legal issues to analyze impact on center operations and specific management tools used to reflect upon about current business practices. CSU

CDEV 91. Early Childhood Education Administration II (3)
Lec-3
Advise: ESL 130 or ENGL 91 or placement in ESL 140 or ENGL 92
Administration, supervision and management of early childhood programs. Emphasis on human relations including staffing; family involvement; and developing communication guidelines for director/teacher, teacher/teacher, teacher/family and managing the daily operations of program. CSU

CDEV 92. Health, Safety, and Nutrition in Early Childhood Programs (3)
Lec-3
Advise: ESL 130 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
Advise: ESL 130 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
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Understanding child development and family concerns essential in planning a developmentally appropriate school-age child care program. Explores relationships with children and families, age appropriate activities, positive guidance and planning the environment. CSU

CDEV 96. Understanding Children with Difficult Behaviors in Early Childhood Programs (3)
Lec-3
Prereq: CDEV 53 Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
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
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Human growth and development, ages five to twelve, and early and mid-adolescence, covering physical, cognitive, language, and social development. Developmental theories and issues affecting the lives of school age children in contemporary society. Required for the Certificate of Achievement in Child Development: Youth Worker and School Age Childcare. 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)
Advise: 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 children with 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

CDEV 106. Exploring Science in Early Childhood Education (3)
Lec-3
Early childhood teachers will explore materials and teaching strategies that support young children's interest in and understanding of science and the natural world. CSU

CDEV 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
CDEV 107=HOEC 107

CDEV 108. Communicating with Parents and Guardians (3)
Lec-48 (total hrs)
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
An overview of the importance of communication in childcare and school settings. Family needs, differences, challenges and expectations are stressed, with special attention paid to cultural, racial, economic, gender and family structure differences and their impacts on communication strategies. The value of positive parent-teacher relationships in the provision of quality childcare and education is analyzed, and communication techniques and strategies are explored. CSU

CDEV 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.

CDEV 108A=ET 108A=BTEC 108A

CDEV 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. CSU
CDEV 108B=ET 108B

CDEV 110. Jumpstart and Preschool Children (3)
Lec-3, field trips
Intensive practice in observations, interactions and set-up of preschool environments that support literacy and language development. Lectures, readings, films and discussions on how to work with young children. CSU

CDEV 111-112-113. Work Experience in Child Development (1-2-3)
Conf-1, work-5,10,15 P/NP only
Prereq.: CDEV 71 or 72 or 75 and Approval of CDEV Work Experience Coordinator
Repeat: CDEV 71, 72, 75, 78, 111, 112, and 113 combined, maximum credit: 16 units
On or off-campus experience in child development or elementary school settings. The focus will be on providing practical experience in the methods and principles of teaching in early childhood and school-age classrooms. Emphasis on the role of the teacher in the field experience setting. Students gain practical, verifiable experience working with young children in a work environment. CSU

CDEV 120. Special Education K–12 (3)
Lec-3
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Introduction to basic issues in special education K–12 including laws, Individual Education Plans (IEPs), collaboration strategies, common disabilities, inclusion strategies, behavior management and curriculum adaptation. CSU

CDEV 121. Children with AD/HD (1)
Lec-1
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Explore behaviors, strengths, and needs of children with AD/HD and develop teaching strategies that support them and their families. Conventional and alternative approaches to diagnosis and treatment as well as prevention and inclusion strategies will be explored. CSU

CDEV 122. Social Emotional Disturbance (1)
Lec-1
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
This course will explore the definitions of social-emotional/behavioral disturbance (SED), educational implications of the diagnosis of SED, the understanding of behavior from brain development, sensory, and emotional perspectives; and prevention/intervention strategies for supporting children diagnosed with SED. CSU

CDEV 123. Learning Disabilities (1)
Lec-1
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Explore common learning disabilities including dyslexia and other visual and auditory processing disorders. Identify multi-sensory strategies for teaching children with learning disabilities; learn how to adapt curriculum and create an inclusive learning environment; and become aware of community resources. CSU

CDEV 124. Individualized Education Plans (1)
Lec-1
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Learn about Individualized Education Programs and Plans (IEPs) and Individualized Family Service Plans (IFSPs) for children with special needs, including developing procedures, setting goals and objectives, and collaborating between parents and colleagues. CSU

CDEV 125. Children's Emotional Development (1)
Lec-1
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
Learn about emotional development of children and strategies for building emotional competence and supporting children's social-emotional development. Emphasis on fostering social-emotional coping strategies for children and teachers. CSU

CDEV 150. Orientation to Education (3)
Lec-3
Advise: ESL 130 or ENGL 91 or Placement in ESL 140 or ENGL 92
This course will provide an opportunity for students to explore the 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/UC

ESL 51A. ESL for Child Development (3)
Lec-3 P/NP available
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 concurrently with either CDEV 65 or 66, or alone
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

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 service 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 8111. 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 (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.

Learning Outcomes

Upon completion of this degree, students will be able to:
- Demonstrate fluency to interact in Chinese in a normal and spontaneous fashion at an intermediate level.
- Understand and react to authentic materials and current media at an intermediate level.
- Demonstrate understanding of geography and cultural differences in the Chinese-Speaking world.
- Display an intermediate level of proficiency in speaking, understanding, reading and writing in Chinese to perform successfully in upper division work.

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>
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<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>
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</tbody>
</table>

An additional six units must be completed from the following courses:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
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</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 Chars. 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>
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</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.

#### Learning Outcomes

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

- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc.
- Understand texts which consist mainly of high-frequency everyday or job-related language.
- Deal with most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.

#### 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>5</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>5</td>
</tr>
<tr>
<td>CHIN 3 Intermediate Chinese</td>
<td>5</td>
</tr>
<tr>
<td>or CHIN 3A-3B Intermediate Chinese</td>
<td>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</td>
</tr>
<tr>
<td>CHIN 16 Chinese Characters for Beginners</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 17 Cont of Chinese Chars for Beginners</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 3A, 3B Inter Chin for Biling Students</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHIN 12A Beg Conversational Mandarin</td>
<td>3</td>
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<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>
<tr>
<td>CHIN 14A Conv Mandarin/Spkrs of Other Lang</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 14B Conv Mandarin/Spkr of Other Lang</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 14C Intermed Conversational Mandarin</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 29A, 29B Chin Literature in Translation</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 39 or 49 Maj Achieve/Chin Thought &amp; Cul</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** 15

#### Announcement of Courses

Students of beginning Mandarin are directed to consider CHIN 1, 1A, 12A, 1A, 14A, 16.

A placement test in Chinese is available for guidance in selecting the appropriate course. For information, call 239-3223.

#### Credit, Degree Applicable Courses:

- CHIN 1. Elementary Chinese (5)
  - Lec-5, lab-2
  - **P/NP available**
  - **Advise:** Eligible for 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

- 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

- 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

- 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
  
- 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

- CHIN 3A-3B. Intermediate Chinese (3-3)
  - Lec-3, lab-1
  - **P/NP available**
  - **Prereq.:** For CHIN 3A: CHIN 2 or 2B or demonstration of CHIN 2/2B exit skills
  - **Prereq.:** For CHIN 3B: CHIN 3A or demonstration of CHIN 3A exit skills

- CHIN 4. Continuation of Intermediate Chinese (5)
  - Lec-5, lab-1
  - **P/NP available**
  - **Prereq.:** CHIN 3 or demonstration of CHIN 3 exit skills

- CHIN 4A-4B. Continuation of Intermediate Chinese (3-3)
  - Lec-3, lab-1
  - **P/NP available**
  - **Prereq.:** For CHIN 4A: CHIN 3 or 3B or demonstration of CHIN 3/3B exit skills
  - **Prereq.:** For CHIN 4B: CHIN 4A or demonstration of CHIN 4A exit skills

Practice in speaking and understanding Mandarin. CSU/UC
understanding Mandarin. Understanding of Chinese culture. CSU/UC
CHIN 4A+4B = CHIN 4

CHIN 10A. Beginning Conversational Cantonese (3)
Lec-3, lab-2  P/NP available
Not open to native speakers of Cantonese. Open to all beginning students.
Beginner's course. Extensive oral training in Cantonese. Emphasis on
practical vocabulary and idiom rather than on formal grammar and
literature. Students will learn romanization with tone markings rather
than Chinese characters. CSU

CHIN 10B. Continuation of Beginning Conversational Cantonese (3)
Lec-3, lab-2  P/NP available
Prereq.: CHIN 10A or demonstration of CHIN 10A exit skills.
Second semester course. Continuation of extensive oral training in
Cantonese. Emphasis on practical vocabulary and idiom rather than
on formal grammar and literature. Students will learn romanization
with tone markings rather than Chinese characters. CSU

CHIN 10C. Intermediate Conversational Cantonese (3)
Lec-3, lab-2  P/NP available
Prereq.: CHIN 10B or demonstration of CHIN 10B exit skills.
Not open to native speakers of Cantonese.
Third semester course. Continuation of extensive oral training in
Cantonese. Designed for students who wish to continue acquiring
more advanced skills of the spoken language with a minimum of
formal grammar. Students will learn romanization with tone markings
rather than Chinese characters. CSU

CHIN 10D. Continuation of Intermediate Conversational Cantonese (3)
Lec-3, lab-2  P/NP available
Prereq.: CHIN 10C or demonstration of CHIN 10C exit skills.
Not open to native speakers of Cantonese.
Fourth semester course. Continuation of extensive oral training in
Cantonese. Designed for students who wish to continue acquiring
more advanced skills of the spoken language with a minimum of
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 1A, 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.
Not open to native speakers of Mandarin nor to speakers of other Chinese
languages. These students should consider CHIN 1B, Conversational
Mandarin for Speakers of Other Chinese Dialects: Level II.
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 1B or demonstration of CHIN
12B, 1 or 1B exit skills.
Not open to native speakers of Mandarin. Open to all students with lim-
ited background in Chinese.
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 stu-
dents 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 read-
ing and writing Chinese. CSU/UC
CHIN 16A. Chinese Characters for Beginners (1)
Lec-1   P/NP available
An introduction to Chinese characters, taught in English. Designed for students with limited or no background in written characters. Besides a brief history of the formation and evolution of characters, basic strokes and the rules for stroke order, students will learn about 100 radicals as well as individual characters. 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 100 characters and learn another 100 new characters through common sayings, idioms and short poems. 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
Advise: 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
Advise: 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
Office: Cloud Hall 126
Phone Number: (415) 239-3651
Web Site: www.ccsf.edu/film

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
- Apply 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. In the first semester, students may enroll concurrently in the following courses: CINE 21, 24, 25, 30, 60, and 75.

Learning Outcomes
Upon completion of this degree, students will be able to:
- Apply basic principles of film production and industry practice
- Analyze different film forms and genres
- Demonstrate skills in celluloid and digital technology
- Demonstrate storytelling skills

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>
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<tr>
<td>CINE 21 Film Studies</td>
<td>3</td>
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<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>
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<tr>
<td><strong>Second Semester</strong></td>
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<tr>
<td>CINE 30 Pre-Production Planning</td>
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<tr>
<td>CINE 54 Cinematography and Lighting</td>
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<tr>
<td>CINE 56 Introduction to Digital Film Editing</td>
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<th>Course</th>
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<tbody>
<tr>
<td><strong>Third Semester</strong></td>
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<tr>
<td>CINE 75 Screenwriting</td>
<td>3</td>
</tr>
<tr>
<td>or CINE 72 Non-Fiction Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>CINE 61 Sound for Motion Pictures II</td>
<td>3</td>
</tr>
<tr>
<td>or CINE 74 Advanced Cinematography and Lighting</td>
<td>3</td>
</tr>
<tr>
<td>or CINE 76 Advanced Digital Film Editing</td>
<td>3</td>
</tr>
<tr>
<td>or CINE 90 Film and Digital Finishing</td>
<td>3</td>
</tr>
<tr>
<td>CINE 131 Directing Motion Pictures</td>
<td>3</td>
</tr>
<tr>
<td>or CINE 126 Documentary Filmmaking</td>
<td>3</td>
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</tbody>
</table>

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
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
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
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
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
Prereq.: CINE 24
P/NP available
Advice: 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.
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
Prereq.: Completion/concurrent enrollment in CINE 24
P/NP available
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
Prereq.: Completion/concurrent enrollment in CINE 24
P/NP available
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
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
P/NP available
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
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
P/NP available
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
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
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
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 72. Nonfiction Scriptwriting (3)
Lec-3
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
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
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
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
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
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
Advise: 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 124A.

CINE 124B. Film Production Workshop (3)
Lec-2, conf-1, lab-4, field trips
Prereq.: CINE 124A
Advise: CINE 30 AND CINE 61 AND CINE 74 AND CINE 75 AND CINE 76
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
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
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
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: Maximum credit: 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
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
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)
The Associate of Science degree with a major in Computer Networking and Information Technology (CNIT) provides students with a solid foundation of skills, knowledge and hands on experience with the core areas of the field of Computer Networking and Information Technology as well as current trends and technologies used in the computer industry. The topics covered in this major include Computer Hardware, Computer Network Administration, Network Security and the basics of Internet and Web development, as well as an option in one of the following areas: Computer Technical Support, Internet and Web Development Techniques, Network Security, Wireless Networks, Cisco Networking, or Microsoft Windows Administration. This degree qualifies students for employment in entry-level network administration, computer technical support or web development positions.

Learning Outcomes
Upon completion of this degree, students will be able to:

- Evaluate computer hardware components and design a functional computer system
- Demonstrate the use of network devices, network operating systems and networking models and their related protocols
- Develop and maintain a basic web site using web development industry standards
- Explain the basics of network security systems
- Demonstrate competency in one of the required optional areas:
  - Computer Technical Support: Troubleshoot and repair defective computer systems
  - Internet and Web Development Techniques: Recognize and use appropriate web development technologies to promote or enhance the work environment
  - Network Security: Develop strategies for network defense using firewalls, routers, switches, antivirus, anti-spyware tools, and hacking techniques
  - Wireless Networks: Evaluate components to prepare and install wireless networks
  - Cisco Networking: Configure and operate Cisco Local and Wide Area Networking hardware and software
  - Microsoft Windows: Install and support a Microsoft Windows networking environment including Windows Server, SQL Server database and Windows Desktop edition

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
- CNIT 104 Operating Systems Technologies | 3 |
- CNIT 105 Computer Technical Support | 3 |
- CNIT 345 Windows 7 Tech Support | 3 |
- CNIT 103L Computer Hardware Lab or CNIT 104L Operating Systems Tech Lab | 1 |

Total Units | 22 |

Option in Internet and Web Development Techniques

Required
- CNIT 132 Intermediate HTML and XHTML | 3 |
- CNIT 133 Interactive Web Pages, Java Script, and AJAX | 3 |
- CNIT 134 Server Side Technologies: ASP .NET | 3 |

Total Units | 21 |

Option in Network Security

Required
- CNIT 121 Computer Forensics | 3 |
- CNIT 122 Firewalls | 3 |
- CNIT 123 Ethical Hacking & Network Defense | 3 |

Total Units | 21 |

Option in Wireless Networks

Required
- CNIT 107 Wireless LANs | 3 |
- CNIT 113 Tech. of Smartphones & Mobile Devices | 3 |
- CNIT 108 Wireless Networks Advanced or CNIT 212 Cisco Wireless | 3 |

Total Units | 21 |

Option in Cisco Networking

Required
- CNIT 202E Routing Protocols & Concepts | 3 |
- CNIT 203E LAN Switching and Wireless | 3 |
- CNIT 204E Accessing the WAN | 3 |

Total Units | 21 |
Option in Microsoft Windows

Required
  CNIT 342 Windows Server Administration ............ 3
  CNIT 343 Windows Server Network Infrastructure .... 3
  CNIT 345 Windows 7 Tech Support
  or CNIT 351 SQL Server Administration ............ 3
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 certificate includes 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. Students completing this certificate program will be qualified for entry-level computer technical support, IT and help desk positions.

Learning Outcomes

Upon completion of this certificate, students will be able to:
  • Evaluate components and configure a functional computer system
  • Troubleshoot and repair defective computer systems
  • Configure and diagnose basic network connectivity
  • Demonstrate correct use of office productivity applications

Courses Required for the Certificate of Accomplishment 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 CS 198A</td>
<td>3</td>
</tr>
<tr>
<td>or CNIT 103L Computer Hardware Lab</td>
<td>1</td>
</tr>
<tr>
<td>or CNIT 104L Operating Systems Tech Lab</td>
<td>1</td>
</tr>
<tr>
<td>or CNIT 105L Computer Tech Support Lab</td>
<td>1</td>
</tr>
</tbody>
</table>
Total Units ........................................ 22

Electives:
  CNIT 30 Internet Safety .................... 1
  CNIT 40 Windows Security Basics .......... 1
  CNIT 70 WiFi Basics ......................... 1

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

Computer Technician Certificate

This certificate 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. Students completing this certificate program will be qualified for entry-level computer technician and technical support positions.

Learning Outcomes

Upon completion of this certificate, students will be able to:
  • Identify, install and configure hardware devices
  • Build, maintain and upgrade computer systems
  • Improve performance of computer systems
  • Prepare for industry certification exam equivalent to 6 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>
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</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</td>
<td>1</td>
</tr>
<tr>
<td>or CNIT 197 Internship or Work Experience</td>
<td>1</td>
</tr>
</tbody>
</table>
Total Units ........................................ 14

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

Fundamentals of Networking Certificate

This certificate provides a solid core of the concepts and terminology, and 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 in order to be qualified for entry-level positions in network administration.

Learning Outcomes

Upon completion of this certificate, students will be able to:
  • Define the major hardware components of computers and network devices
  • Describe the role of operating systems including network operating systems
  • Compare and contrast the OSI and TCP/IP networking models and their related protocols
  • Create a simple web site using HTML and upload it on a server
  • Explain the role of switches and routers in LANs and WANs

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>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>CNIT 100 Intro to Computers Using PCs</td>
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<tr>
<td>CNIT 101 Operating Systems I - Windows</td>
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</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 CS 198A</td>
<td>3</td>
</tr>
<tr>
<td>or CNIT 103L Computer Hardware Lab</td>
<td>1</td>
</tr>
<tr>
<td>or CNIT 104L Operating Systems Tech Lab</td>
<td>1</td>
</tr>
<tr>
<td>or CNIT 105L Computer Tech Support Lab</td>
<td>1</td>
</tr>
</tbody>
</table>
Total Units ........................................ 22

Electives:
  CNIT 30 Internet Safety .................... 1
  CNIT 40 Windows Security Basics .......... 1
  CNIT 70 WiFi Basics ......................... 1

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.
CNIT 104 Operating Systems Technologies ...............3
CNIT 106 Introduction to Networks
or CNIT 201E Network Fundamentals ....................3
CNIT 131 Internet Basics and Beginning HTML ..........3
CNIT 342 Windows Server Administration ................3
Total Units ........................................... 15

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

**Fundamentals of Technical Support Certificate**

This certificate includes instruction in introductory technical support skills. Students will learn the fundamentals of: problem-solving technical support issues related to end-user computer applications, hardware and operating systems. Students completing this certificate program will be qualified for employment in entry-level computer technical support positions.

**Learning Outcomes**

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

- Recognize technical support skills required by the IT industry
- Identify and solve computer-related issues
- Support and maintain computer applications, hardware and operating systems
- Provide basic ROI and Project Management skills

**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 ............3</td>
<td></td>
</tr>
<tr>
<td>CNIT 103 Computer Hardware ........................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 104 Operating Systems Technologies ..........3</td>
<td></td>
</tr>
<tr>
<td>CNIT 105 Computer Technical Support ..........................3</td>
<td></td>
</tr>
<tr>
<td>or CNIT 345 Windows 7 Tech Support .................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 197 Work Experience ...............................1</td>
<td></td>
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<tr>
<td>Total Units ................................... 13</td>
<td></td>
</tr>
</tbody>
</table>

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

**LAMP Fundamentals Certificate***

*See Computer Science section of the Catalog

**LAMP Administration Certificate***

*See Computer Science section of the Catalog

**Network Security Certificate**

This certificate includes 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. Students completing this certificate program will be qualified for employment in entry-level network security positions and be able to prepare for CompTIA Security+ exam.

**Learning Outcomes**

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

- Explain the basics of network security
- Define confidentiality, integrity, availability, and non-repudiation (CIAN)
- Recognize viruses and worms, their differences and how to harden computer systems
- Apply strategies for network defense using firewalls, routers, switches, antivirus, and anti-spyware tools
- Protect the IT environment using hacking techniques
- Discover hidden data in memory and hard drive using forensics rules, tools and techniques

**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 ..........................3</td>
<td></td>
</tr>
<tr>
<td>or CNIT 201E Network Fundamentals ........................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 120 Network Security ....................................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 122 Firewalls ..............................................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 123 Ethical Hacking ......................................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 124 Advanced Ethical Hacking or CNIT 121 Computer Forensics or CNIT 125 Information Security Prof Practices .........3</td>
<td></td>
</tr>
<tr>
<td>Total Units ................................... 15</td>
<td></td>
</tr>
</tbody>
</table>

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

**Routing and Switching (Cisco) Certificate**

This certificate includes instruction and practice in the theory, design, configuration, and operation of simple Local and Wide Area Networks. Students completing this certificate program will be qualified for employment in entry-level positions in network administration and be able to prepare for the Cisco Certified Network Associate (CCNA) certification exam.

**Learning Outcomes**

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

- Compare and contrast the OSI and TCP/IP networking models and their related protocols
- Explain the importance of addressing and naming schemes of various layers of data
- Compare and configure various internal routing protocols
- Analyze, configure and troubleshoot switch configurations including LANs and VLANs
- Describe and configure a variety of WAN protocols in routers
- Define basic network security issues and possible solutions

**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 ....................................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 201E Network Fundamentals .................................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 202E Routing Protocols and Concepts ......................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 203E LAN Switching and Wireless ............................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 204E Accessing the WAN ....................................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 120 Network Security ......................................3</td>
<td></td>
</tr>
<tr>
<td>CNIT 342 Windows Server Administration ........................3</td>
<td></td>
</tr>
<tr>
<td>Total Units ................................... 21</td>
<td></td>
</tr>
</tbody>
</table>

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.
Web Site Development Techniques Certificate

This certificate includes instruction and practice in the development, configuration and operation of web sites. Students completing this certificate program will be qualified for employment in entry-level positions in web site development and administration.

Learning Outcomes

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

- Define various components of Windows Server
- Install Windows Server
- Implement and manage active directory infrastructure using advanced techniques
- Install and maintain SQL Server database in a Windows environment
- Support Windows Desktop edition

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>
<tr>
<td>CNIT 135A XML-Extensible Markup Language or CNIT 129 Web 2.0 Internet Technology</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

Windows Networking Certificate

This certificate includes instruction and practice in the theory, design, configuration, and operation of local and wide area networks using Microsoft Windows servers. Students completing this certificate program will be qualified for employment in entry-level positions in network management and technical support of Windows networks.

Learning Outcomes

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

- Develop and maintain web sites according to industry standards
- Recognize and use appropriate Web 2.0 technologies to promote or enhance the work environment
- Add interactivity to web pages via scripting programs and/or server-side technologies

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>
<tr>
<td>Total Units</td>
<td>12</td>
</tr>
</tbody>
</table>

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

Wireless Networking Certificate

This certificate includes instruction in the description, installation, and configuration of network devices for wireless communication, focusing on issues of performance and security. Students completing this certificate program will be qualified for employment in entry-level positions in the administration of wireless networks and to begin preparation for the Certified Wireless Network Administrator (CWNA) and Certified Wireless Security Professional (CWSP) industry certification exam.

Learning Outcomes

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

- Configure and diagnose basic network connectivity
- Evaluate components of and prepare a wireless network
- Install a wireless network
- Troubleshoot a wireless network

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 107 Wireless LANs</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 108 Wireless Networks, Advanced</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 120 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 113 Tech. of Smartphones &amp; Mobile Devices</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
</tr>
</tbody>
</table>

Students must complete each course with a grade of “C” or higher. A grade of Pass/No Pass cannot be applied towards CNIT degrees or certificates.

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

Essential concepts of Internet Protocol Version 6 (IPv6), Migration IPv4 to IPv6 including its impact on Network Address Translation. Practice in: deployment of IPv6 on routers, Web servers, Email servers and DNS servers. Preparation for the Hurricane Electric IPv6 Certification. 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
Advises: CNIT 100
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 utilites 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
Advises: 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
Advises: 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, modifications, 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. IT Customer Support (3)
Lec-3, Lab-3
P/NP Available
Prereq.: CNIT 104.
Advises: CNIT 106 or 101 or 102.
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. Extensive simulated and hands-on experience, role-playing and problem solving to practice good customer service and communication skills. CSU
Formerly CIS 105.

CNIT 105L. Computer Technical Support Lab (1)
Lab-3
P/NP Available
Advises: 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
Advises: 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 CompTIA convergence +certification exam. CSU

CNIT 107. Wireless LANs (3)
Lec-3 P/NP available
ADVISE: CNIT 106 or 106C or 201E or 349
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 vulnerabilities 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 110. 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 vulnerabilities, 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 111. 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 vulnerabilities, 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
Prereq.: CNIT 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 over flow 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 countermeasures 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
Prereq.: 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
ADVISOR: CNIT 100
Overview of Web 2.0 Internet technologies. Techniques for contributing 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
Methods of using the Internet. History, design and protocol methods used on Internet including: electronic mail, mailing lists, Usenet, connection to remote computers, file transfer, World Wide Web, basic web page creation and publishing. Additional topics include: file compression and expansion, computer security, copyright and electronic commerce, and basic Unix shell commands. CSU
Formerly CNIT 135A or CIS 155A.

CNIT 131A. XML-Extensible Markup Language (3)
Lec-3, lab-3  P/NP available
ADVISOR: 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 extendible Style Language (XSLT), XPath and Cascading Style Sheets (CSS). CSU

CNIT 132. Intermediate HTML and CSS (3)
Lec-3, lab-3
ADVISOR: CNIT 131.
Use of HTML to publish information on the World Wide Web, including 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
ADVISOR: CNIT 132
Creation of interactive Web pages using JavaScript, including properties, methods, objects, and event handlers of the Document Object Model. Creation of interactive Web pages using AJAX technologies. CSU
Formerly CNIT 135C.

CNIT 133M. Mobile Web w/HTML, CSS & JS (3)
Lec-3  P/NP Available
Prereq.: CNIT 133 or Demonstration of Exit Skills
Conversion of desktop websites and an introduction to building web applications for smart phones and mobile devices with intermediate HTML and JavaScript. Includes jQuery and intermediate CSS for controlling the appearance of mobile device websites and introduction of some development platforms. CSU

CNIT 134. Server-side Technologies for the Web (3)
Lec-3, lab-3  P/NP Available
Prereq.: CNIT 133 or CS 110A or CS 11A 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  P/NP available
ADVISOR: 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: CNIT 197 and 198 combined, max. credit: 9 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 240 or 201 and Approval of CNIT Work Experience Coordinator
Repeat: CNIT 197 and 198 combined, max. credit: 9 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-st-5, 10, 15
Prereq.: CNIT 104 or 202 or 132 or 241
Large-scale individual projects in Computer Networking and Information Technology to be defined in cooperation with an
CNIT 201E. Network Fundamentals (3)
Lec-2, lab-3, conf-1 P/NP available
Prereq.: CNIT 101E
Advisory: 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 (BCMSN) 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 Exit Skills of CNIT 204E
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
Junos Operating System: interface options, initial and secondary system configurations, operational monitoring and maintenance. Routing fundamentals: static routing and Open Short Path First (OSPF) dynamic routing, routing policy and firewall filters. Class of Services, Border Gateway Protocol (BGP). Load Balancing and High Availability Networks. Prepares for the Juniper Networks Certified Internet Associate (JNCIA-Junos) - JNO-100 Certification. CSU

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 VPs, class of service, branch office connectivity, router management. CSU

CNIT 211. Fiber Optic Technology (3)
Lec-3, lab-3
Prereq.: ET 108A /BTEC 108A/CEDEV 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
Prereq.: CNIT 107 or 108
Prereq.: ET 108A /BTEC 108A/CEDEV 108A or MATH 40
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
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
Prereq.: CNIT 106 or 201 or 240; and completion of or concurrent
enrollment in CS 260A
Configuring and maintaining Unix/Linux networks and network ser-
cices, including network design, adding hosts, configuring network
services such as DNS, NFS, NIS, e-mail and network printing, per-
forming software and kernel updates, routing, routing protocols, and
troubleshooting. CSU

CNIT 271. Apache Web Server Introduction (1)
Lec-1, lab-1
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
Advise: 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 perfor-
manence, web server security, including SSL, and troubleshooting. CSU

CNIT 342. Windows Server Administration (3)
Lec-3, lab-3
Advise: CNIT 101 and 106 or 106C or 201E
Knowledge and skills required to manage accounts and resources,
maintain server resources, monitor server performance, and safeguard
data in Microsoft Windows Server 2008 environment. Aligned with
Microsoft Certified IT Professional (MCITP) exam 70-646. CSU

CNIT 343. Windows Server Network Infrastructure (3)
Lec-3, lab-3
Advise: CNIT 342
Knowledge and skills that are required to manage Dynamic Domain
Name Servers, configuration of Server File Systems, Dynamic Host
Configuration Protocol (DHCP) servers, Securing Data Transmission,
configuring Routing and Remote Access and maintaining and updat-
ing File Services. This course is aligned with the Microsoft Certified IT
Professional (MCITP) exam 70-642. CSU

CNIT 345. Windows 7 Technical Support (3)
Lec-3, lab-3
Prereq.: CNIT 101 or demonstration of technical knowledge
of Windows operation systems
Knowledge, skills, and hands-on experience to install, configure,
and maintain Windows 7 operation system. Course aligned with the
"Microsoft Certified Technology Specialist: Windows 7, Configuration"
certificate.

CNIT 351. SQL Server Administration (3)
Lec-3, lab-3
Prereq.: CNIT 342 or demonstration of technical knowledge
of Windows Server administration
This course is about SQL Server database management system. In this
advanced course, students will gain the knowledge and skills to install
and configure SQL Server and manage the day-to-day administration
of a client/sever database in an enterprise network environment.

CNIT 352. Exchange Admin & Mobile Device (3)
Lec-3, lab-3
Prereq.: CNIT 343
Knowledge and skills needed to configure and manage an Exchange
Server messaging environment. Provide guidelines, best practices, and
considerations that will help optimize and Exchange Server deploy-
tment. Targets MCTS (Microsoft Certified Technology Specialist) Exam
70-662: Microsoft Exchange Server 2010. CSU
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 a 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. 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 Computer Science Department Advisor. Four-year universities may have additional or different course requirements for completion of lower division. Students need to check the particular institution for their requirements. 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.

Courses Required for the Major in Computer Science

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 110A/111A Intro to Programming (C++/Java)</td>
<td>3</td>
</tr>
<tr>
<td>CS 110B/111B Prog Fundamentals I (C++/Java)</td>
<td>3</td>
</tr>
<tr>
<td>CS 110C/111C Prog Fundamentals II (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>
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<tr>
<td>PHYC 4AL Physics Lab for Scientists &amp; Engrs</td>
<td>1</td>
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<tr>
<td>PHYC 4B Physics for Scientists and Engineers</td>
<td>3</td>
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<tr>
<td>PHYC 4BL Physics Lab for Scientists &amp; Engrs</td>
<td>1</td>
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<td>Total Units</td>
<td>31</td>
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</tbody>
</table>

Recommended Electives. CS 160A; CS 150A, 151A, or 155A; CS 130A, 131A, or 132A; CNIT 131, 132, and 133; CS 211D or 212

Computer Science Major (AS-T)*

*This program is pending state approval.

Please refer to the online version of the Catalog.

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.

Android App Programming Certificate

This certificate is designed to teach students how to program native apps (mobile device applications) to run on Android phones and tablets. Students learn the basics of programming in Java, and the specifics of how to program for Android devices. Students completing this certificate program will be qualified for employment as entry-level app developers and quality assurance technicians.

Learning Outcomes

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

- 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.
- Design and implement abstract data types using classes, encapsulation, inheritance, polymorphism, exceptions, events, multithreading, collections and generics.
- Create User Interfaces (UIs) using controls, layout managers, adaptors, menus and dialogues.
- Implement Android applications incorporating activities, services, content providers, broadcast receivers, location tracking, maps, and Internet access.
- Use SQLite for database storage, Media Player, and telephony APIs.

Students must complete each course with a grade of C or higher. Where applicable, grades of Pass may be used.

Courses Required for the Certificate of Accomplishment in Android App Programming

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 11A Intro to Programming: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 11B Programming Fundamentals: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 21S Advanced Java: Standard Edition</td>
<td>3</td>
</tr>
<tr>
<td>CS 21D Android Programming</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>

Recommended Additional Coursework. CS 160A, CS 142 or CNIT 131A, CNIT 113, CS 155A, CS 111C, CNIT 133M

Computer Programming: C++ Certificate

The program of study for the certificate in Computer Programming: C++ includes instruction and practice in the programming language C++, database queries, use of the Linux operating system, and a broader context of software engineering or computer architecture. This course of study prepares students for entry-level positions in software quality assurance, computer programming, and related fields.

Learning Outcomes

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

1. Analyze problems and interpret technical specifications to create and program appropriate algorithmic solutions that include the use of control structures, parameters and return values.
2. Design and implement abstract data types using classes, encapsulation, inheritance and polymorphism.
3. Write C++ code for class declarations and implementations for array-based and linked data structures.
4. Compare and contrast algorithms for efficiency.
5. Predict the results of code using the data structures stacks, queues, trees, graphs, heaps, and hash tables with associated
Upon successful completion of this program, a student will be able to:

6. Write Unix commands to manipulate files, directories, their contents and their permissions.
7. Write multiple table database queries in SQL.
8. Discuss programming within a broader context: Software Engineering or Computer Architecture.

Courses Required for the Certificate of Accomplishment in Computer Programming: C++

<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>
<tr>
<td>CS 100 Introduction to Computer Science</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 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>CS 160A Introduction to Unix/Linux</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

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 data base 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 112A Intro to Programming: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 112B Programming Fundamentals: Java</td>
<td>3</td>
</tr>
<tr>
<td>CS 112C 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></td>
</tr>
<tr>
<td>or CS 211E Adv Java: Enterprise Edition</td>
<td>2-3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>16-17</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.

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.

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 events 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 Achievement in Computer Programming: Visual Basic with Database

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 112A Intro to Visual Basic. NET</td>
<td>3</td>
</tr>
<tr>
<td>CS 112B Visual Basic.NET Object Oriented</td>
<td>3</td>
</tr>
<tr>
<td>CS 112D Visual Basic.NET w/ Databases</td>
<td>3</td>
</tr>
<tr>
<td>CS 150A SQL Server Databases</td>
<td></td>
</tr>
<tr>
<td>or CS 150P SQL Server Programming Using T-SQL</td>
<td></td>
</tr>
<tr>
<td>or 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, will 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, 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 a MySQL 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>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</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.

iPhone App Programming Certificate

This certificate is designed to teach students how to program native apps (mobile device applications) to run on iPhones, iPads, and other iOS devices. Students learn the basics of programming in Java or C++, as well as Objective C, and the specifics of how to program for iPhones. Students completing this certificate program will be qualified for employment as entry-level app developers and quality assurance technicians.

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

- 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
- Design and implement abstract data types using classes, encapsulation, inheritance and polymorphism
• Develop and test Objective C classes and protocols, implementing projects using XCode
• Extend User Interface Kit (UIKit) classes to create custom view controllers
• Compare and contrast core graphics classes

Students must complete each course with a grade of C or higher. Where applicable, grades of Pass may be used.

Courses Required for the Certificate of Accomplishment in iPhone App Programming

Course                                      Units
CS 110A Intro to Programming: Java           3
or CS 110A Intro to Programming: C++         3
CS 111B Programming Fundamentals: Java       3
or CS 110B Programming Fundamentals: C++     3
CS 212 iPhone Programming                     3
Total                                            9

Recommended Additional Coursework: CNIT 113, CS 155A, CS 111C or 110C, CNIT 133M

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.

Learning Outcomes

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

A. Write Unix/Linux commands including redirection and pipes, to manipulate files, directories, their contents and their permissions.
B. Create regular expressions to perform pattern matching.
C. Analyze common text processing and operation system tasks and interpret technical specifications to create and program algorithmic solutions such as shell scripts, including the use of control structures, subroutines and lists.
D. Write multiple table database queries in SQL.
E. Install, configure and maintain common network services using Apache.

Students must complete each course with a grade of C or higher. Where applicable, grades of Pass may be used.

Courses Required for the Certificate of Accomplishment in LAMP Fundamentals

Course                                      Units
CS 160A Introduction to Unix/Linux            2
CS 160B Unix/Linux Shell Scripting            2
CNIT 271 Apache Web Server Introduction        1
CNIT 201E Network Fundamentals
or CNIT 106 Introduction to Networks          3
CS 135A MySQL Databases                       3
CS 130A PHP Programming                       3
or CS 131A Introduction to Perl Programming
or CS 131A Python Programming
or CS 132A Ruby Programming                    3
Total                                            14

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 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

Course                                      Units
CS 260A Unix/Linux System Administration     3
CNIT 272 Apache Web Server Advanced           2
CNIT 270 Unix/Linux Network Services          3
CS 155B MySQL Database Administration         3
CS 130B Advanced PHP Programming or CS 232 Ruby on Rails Development 3-4
Total                                            14-15

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 293.

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 Accomplishment 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 133A Introduction to Perl Programming or CS 131A Python Programming</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 201E Network Fundamentals or CNIT 106 Introduction to Networks</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units .................................................................................. 17

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
ADVICE: MATH 40
Introductory 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
PREREQ.: CS 110A
This course covers programming fundamentals using the C++ language. Topics include pointers, arrays, structured elements, dynamic memory allocation, and Object Oriented programming. Assignments require planning, good coding practices, and documentation. CSU/UC

CS 110C. Data Structures and Algorithms: C++ (3)
Lec-3, conf-1, lab-3
PREREQ.: 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 UML, heaps, graphs, tables, hashing, and direct access files. Further study of abstract data types. UC/CSU

CS 111A. Intro to Programming: Java (3)
Lec-3, Conf-1, lab-3
ADVICE: 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
PREREQ.: CS 110B
This course covers programming fundamentals using the Java language, using an object-oriented approach to problem solving. Topics include classes, objects, references, dynamic memory allocation, inheritance, polymorphism, arrays, files, design and implementation of abstract data types, in numerical and non-numerical applications. CSU/UC

CS 111C. Data Structures and Algorithms: Java (3)
Lec-3, conf-1, lab-3
PREREQ.: 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
P/NP available
ADVICE: MATH 40
A beginning course in computer programming and problem solving using Visual Basic.NET. Students develop Windows-oriented application programs with emphasis on standard programming concepts and algorithms, interface design, and event processing using the .Net development platform. CSU/UC
CS 112B. Visual Basic.NET Object-Oriented (3)
Lec-3, conf-1, lab-3 P/NP available
Prereq.: 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 111A or 155A or experience writing SQL queries
Advis: 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
Advis: 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 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
Advis: 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
Advis: 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
Advis: 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
Advis: CS 110A, 111A, 112A, 113A, or other computer programming course
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 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 other computer 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 115A 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  
Advise: CS 160A  
An advanced course in the architecture, design, configuration, installation, and maintenance of an Oracle relational database management 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 language. 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  
Advise: 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  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  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 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 sections may install different distributions. An overview is given of Unix/Linux courses for further study. CSU

CS 177. Software Engineering (3)  
Lec-3, lab-3  P/NP available  
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 183A. Multimedia Tools (3)  
Lec-3, lab-3  P/NP available  
Advise: CS 100M or CNIT 100 or MMSP 120  
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 183B. Flash Game Programming I (3)  
Lec-3, conf-1, lab-3  P/NP available  
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 183C. Advanced Multimedia Programming (3)  
Lec-3, conf-1, lab-3  P/NP available  
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 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: Maximum credit: 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.: CNIT 133; CS 110C, 111C, 183B, or 260
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  P/NP available
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  P/NP available
Prereq.: CS 111B
Advise: 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, JNI, JavaBeans, XML, and ANT. CSU

CS 211G. Game Programming in Java (3)
Lec-3, lab-3  P/NP available
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 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  P/NP available
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  P/NP available
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. CSU

CS 232. Ruby on Rails Development (4)
Lec-4, lab-4, conference-1
Prereq.: CS 132A
Advise: 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. Linux System Administration (3)
Lec-3, conf-1, lab-3  P/NP available
Prereq.: CS 160B or demo of CS 160B exit skills
The administration of a Linux server. Prepares students for industry certification and entry-level employment in System Administration. Topics include process control, system monitoring, filesystem preparation and maintenance, logical volumes, encrypted filesystems, basic servers and the firewall, virtual machines, startup and shutdown, user accounts, periodic tasks, security issues and installations. CSU

CS 260P. Linux Administration Projects (1)
Lec-1, conf-1, lab-1  P/NP Only
Prereq: CS 260A
This is a lab course to practice Linux System Administration in preparation for the industry-standard RHCSA (RedHat Certified System Administrator) exam. Virtual machines are used. It requires a firm foundation in the material covered in CS 260A. Additional material adds depth in the areas of automated installations and security. CSU

CS 261A. Unix/Linux Systems Programming (3)
Lec-3, lab-3  P/NP available
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 267. Unix and Linux Security (3)
Lec-3, lab-3
Prereq.: CNIT 106 or 201
Advise: 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
**Construction Management**
See Architecture

**Consumer Education**
Office: John Adams  
Phone Number: (415) 561-1914  
Web Site: www.ccsf.edu/Departments/Health_PE/consumer_ed

**Announcement of Curricula**

**General Information**
The Nutrition Assistant Program is a two-semester certificate program designed to develop competence in the delivery of nutrition-related services. Graduates of the program work as entry-level nutrition staff in public health and health care settings.

**Nutrition Assistant Certificate**
(Starts each Fall Semester.)

**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 evaluation.
   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.

**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 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**

**Course** | **Units**
--- | ---
**First Semester (Fall)**
HOEC 98 Introduction to Dietetics Profession | 1
HOEC 99 Nutrition for Health (or equivalent) | 3
HOEC 100 Foodways, Nutrition and Health | 3
**Second Semester (Spring)**
HOEC 104 Life Span Nutrition and Assessment | 4
HOEC 105 Clinical and Community Nutrition | 4
HOEC 106 Nutrition Assistant Field Experience | 2
**Total Units** | **17**

**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)
Conf-35, lab-8, work-160 (total hrs) P/NP Only
Prereq.: Completion of HOEC 98,99,100, 104 &105 with a “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 agencies, or other health care settings. 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 107= CDEV 107

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
HOEC 108=PE 20

Noncredit Course:
HOEC 6122. Consumer Education - Health and Nutrition (54 hrs)
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/nscd

Learning Outcomes

Upon completion of the courses of the Academic Achievement and Personal Success discipline, students will be able to:

- Navigate the educational and student support services to enhance their success.
- Make decisions related to their educational and personal goals.

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 hours) 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
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)
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 noncredit 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).

Noncredit 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 noncredit (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.

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.

Culinary Arts and Hospitality Studies Mission Statement. The Culinary Arts and Hospitality Studies Department at City College of San Francisco is designed to provide students with strong foundational and practical culinary and management skills necessary to succeed in the hospitality industry.

Our Vision. Equally grounded in culinary arts and management, students learn through hands-on culinary, management and academically related classes, to develop real-world skills and knowledge necessary to excel in the food service, restaurant and hospitality industry.

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 as purveyors, to name a few career possibilities.
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 management positions, such as: assistant restaurant managers, hotel reservations manager, assistant front office manager, and purchasing agent.

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 Manger Chef, Sales Manager, Bakery Owner, Catering Director, Food Service Director, Sous Chef, Country Club Manager, Hotel Director of Sales and Marketing, Director of Banquets are a few higher level career possibilities.

Associate in Science Degree Programs
Please visit www.ccsf.edu/cahs for more information and an application.

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.

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).  

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 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)

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. Please see Program Advisor or CCSF Counselor for more information.

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).

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 course 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.

Culinary Arts Management Major (AS)

Students may earn an Associate in Science Degree with a concentration in Culinary Arts. These classes are offered every semester and should be taken with A.S. degree requirements.

Learning Outcomes

Upon completion of the Culinary Arts Management Major, students will be able to:

- Apply the concepts and techniques of sanitation, personal hygiene, and professional attire to hospitality environments.
- Demonstrate costing principles and trends to profitably operate hospitality establishments.
- Demonstrate the ability to work in a variety of dining room and hospitality environments.
- Identify, describe, compare and contrast current trends in the hospitality industry.
- Demonstrate the skills and behaviors required during customer service to analyze, judge, and act in ways that contribute to guest satisfaction.
- Use industry specific technology to retrieve, create, organize, and communicate information in ways that inform and enhance individual and organizational performance.
- Apply ethical and sustainable business tenets.
- Students will be able to demonstrate the ability to work in a professional kitchen as a line and pastry cook.
- Students will be able to demonstrate an understanding of the knowledge needed to be a supervisor in the hospitality industry.

Courses Required for the Major in Culinary Arts

<table>
<thead>
<tr>
<th>Courses Required for the Major in Culinary Arts</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>5</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 1I Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or SPCH 1A Elements of Public Speaking</td>
<td></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>3</td>
</tr>
<tr>
<td>CAHS 33 Procurement and Costing</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 42 H &amp; R Accounting</td>
<td>3–4</td>
</tr>
<tr>
<td>or ACCT 1 Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>CAHS 44 Supervisory Development</td>
<td>3</td>
</tr>
<tr>
<td>or SUVP 231 Intro to Super/Management</td>
<td></td>
</tr>
<tr>
<td>CAHS 10 (or 10Q), 20, 30 and 40W must be taken in sequence.</td>
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</tr>
</tbody>
</table>


Pre-requisites:

- Applicants 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:

- CAHS 24 Specialty Baking and Decorating .................. 3
- CAHS 60A Sous Vide Cooking ................................. 1
- CAHS 60B Classic and 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 203 Advanced A la Minute Cooking ................. 4

Total Units .................................................... 44-45

Recommended Electives:

Recommended culinary/management program courses: (evening classes lecture-demonstration)

- CAHS 205 Intro to Wine and Its Sensory Eval ............... 3
- CAHS 206 Ethnic Cuisines .................................... 3
- CAHS 207 Techniques of Healthy Cooking ................. 3
- CAHS 209 Restaurant Analysis ............................... 3
- CAHS 222 Beverage Management ............................ 3

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).

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 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)

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. Please see Program Advisor or CCSF Counselor for more information.

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).

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, 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 Center. 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.

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.

Learning Outcomes

Upon completion of the Food Service Management Major, students will be able to:

- Apply the concepts and techniques of sanitation, personal hygiene, and professional attire to hospitality environments.
- Demonstrate costing principles and trends to profitably operate hospitality establishments.
- Demonstrate the ability to work in a variety of dining room and hospitality environments.
- Identify, describe, compare and contrast current trends in the hospitality industry.
- Demonstrate the skills and behaviors required during customer service to analyze, judge, and act in ways that contribute to guest satisfaction.
• Use industry specific technology to retrieve, create, organize, and communicate information in ways that inform and enhance individual and organizational performance.
• Develop and apply ethical and sustainable business tenets.
• Demonstrate an understanding of the knowledge needed to be a supervisor in the hospitality industry.
• Demonstrate a sense of service and hospitality through community and volunteerism

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 120 Culinary Fundamentals I</td>
<td>5</td>
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<tr>
<td>CAHS 30 Restaurant Operations</td>
<td>3</td>
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<tr>
<td>CAHS 32 Hospitality Marketing</td>
<td>3</td>
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<tr>
<td>CAHS 33 Procurement and Costing</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 34 Hospitality Law</td>
<td>3</td>
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<tr>
<td>CAHS 40W Field Work</td>
<td>3</td>
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<tr>
<td>MB 51 Sanitation Principles and Practices</td>
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<tr>
<td>SPCH 11 Basic Public Speaking</td>
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<tr>
<td>NUTR 51 Elementary Nutrition</td>
<td>2</td>
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<tr>
<td>LBCS 96C Labor Relations in the Modern American Workplace</td>
<td>3</td>
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<tr>
<td>CAHS 44 Supervisory Development</td>
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<tr>
<td>CAHS 42 H&amp;R Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 208 Catering and Events</td>
<td>4</td>
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<td>Total Units</td>
<td>47-48</td>
</tr>
</tbody>
</table>

* To be taken in students final semester and by consent of instructor.

Recommended Electives:

- Recommended culinary/management program courses: (evening classes lecture-demonstration)
  - CAHS 206 Ethnic Cuisines                      | 3
  - CAHS 209 Restaurant Analysis                 | 3

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.

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 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)

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. Please see Program Advisor or CCSF Counselor for more information.

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.

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 locations: Ocean/Phelan campus, Southeast center, and the Downtown center. 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.

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.

Learning Outcomes

Upon completion, students will be able to:

- Apply the concepts and techniques of sanitation, personal hygiene, and professional attire to hospitality environments.
- Demonstrate costing principles and trends to profitably operate hospitality establishments.
- Demonstrate the ability to work in a variety of dining room and hospitality environments.
Courses Required for the Major in Hotel Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>CAHS 100 Introduction to Hospitality</td>
<td>3</td>
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<tr>
<td>MABS 60 Intro to Computer Appl. for Business</td>
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<tr>
<td>LBCS 96C Labor Relations in the Modern American Workplace</td>
<td>3</td>
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<tr>
<td>CAHS 35 Hotel Front Office Operations</td>
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<td>SUPV 233 Human Resources Management</td>
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<td>CAHS 32 Hospitality Marketing</td>
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<tr>
<td>BSEN 74 Business Correspondence</td>
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<td>CAHS 208 Catering and Events</td>
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<td>SPCH 10 Basic Speaking</td>
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<tr>
<td>or SPCH 1A Elements of Public Speaking</td>
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<td>CAHS 34 Hospitality Law</td>
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<tr>
<td>CAHS 42 H&amp;R Accounting</td>
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<tr>
<td>or ACCT 1 Financial Accounting</td>
<td>3</td>
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<tr>
<td>or ACCT 10 Introduction to Accounting</td>
<td>3-4</td>
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<tr>
<td>CAHS 43 Principles of Hotel Administration</td>
<td>3</td>
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<tr>
<td>CAHS 44 Supervisory Development</td>
<td>3</td>
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<tr>
<td>or SUPV 231 Intro to Super/Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHS 40W Field Work*</td>
<td>3</td>
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<tr>
<td>Total Units</td>
<td>43 - 44</td>
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</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 ENGL 91; placement in ESL 150 or ENGL 92
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 140 or ENGL 91; placement in ESL 150 or ENGL 92
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.: CAHS 10 or 10Q
Advise: Math E or E1 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 sauces, butchery and gardemanger. CSU

CAHS 21. Meat Analysis (2)
Lec-2, field trips
Prereq.: ESL 140 or ENGL 91; placement in ESL 150 or ENGL 92
Advise: Completion/concurrent enrollment in CAHS 20
This class will focus on the fabrication of beef, pork, veal, lamb, poultry and fish; proper cuts and their uses; recognition of the quality of meat and cooking methods used for various cuts of meats. Knowledge necessary for proper purchasing of meats in order to maintain the proper percentage of profit in a restaurant operation. 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
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 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 ENGL 91; placement in ESL 150 or ENGL 92  
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 ENGL 91; placement in ESL 150 or ENGL 92  
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 ENGL 91; placement in ESL 150 or ENGL 92  
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 ENGL 91; placement in ESL 150 or ENGL 92  
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 résumé 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; and approval of CAHS Work Experience Coordinator/Instructor.  
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 ENGL 91; placement in ESL 150 or ENGL 92  
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 ENGL 91; placement in ESL 150 or ENGL 92  
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 ENGL 91; placement in ESL 150 or ENGL 92  
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 co-operation; 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  
F/NP available  
Prereq.: ESL 140 or ENGL 91; placement in ESL 150 or ENGL 92  
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 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 91 or placement in ESL 150 or ENGL 92; and CAHS 10 or 10Q; and CAHS 20  
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 203. Advanced A la Minute Cooking (4)  
Lec-1, lab-9  
Prereq.: ESL 140 or ENGL 91; placement in ESL 150 or ENGL 92  
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 Center 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  P/NP available
Prereq.: Minimum age of 21; ESL 140 or ENGL 91; placement in ESL 150 or ENGL 92
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  P/NP available
Prereq.: ESL 140 or ENGL 91; placement in ESL 150 or ENGL 92
Advis: CAHS 10 and 20 or Industry Experience
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 207. Techniques of Healthy Cooking (3)
Lec-3
Prereq.: ESL 140 or ENGL 91; placement in ESL 150 or ENGL 92
Advis: CAHS 10 and 20, or Industry Experience
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 208. Catering and Events (4)
Lec-3, lab-5, field trips  P/NP available
Prereq.: ESL 140 or ENGL 91; placement in ESL 150 or ENGL 92
Advis: CAHS 10 and 20 or Industry Experience
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 ENGL 91; placement in ESL 150 or ENGL 92
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 210. Beverage Management (3)
Lec-3
This course covers the basics of beverage management for hotels, restaurants, and bars. Topics covered will include alcoholic and non-alcoholic beverage production methods and proper service, creation of wine and other beverage lists, costing, bar design and equipment, hiring, management, and the fundamentals of mixology. CSU

CAHS 245. Food Study I (3)
Lec-2, lab-3, field trips
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
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-3
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 248. 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 249. Food Study III (3)
Lec-2, lab-3, field trips
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 250. Food Study IV (3)
Lec-2, lab-3, field trips
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

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.

Admissions. Procedures for noncredit enrollment CSST Program:

a. File a CCSF noncredit student application either online or at the Downtown center.

b. Meet with a Downtown center 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 centers. Non credit ESL testing is available at all City College locations except Southeast and Evans centers. 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 center counselor to receive enrollment instructions.

e. CSST Program enrollment will begin the first day of noncredit enrollment.

Length of Program. Two semesters (1,020 hours)
Learning Outcomes
Upon completion of this certificate, students will be able to:

- Students will be able to apply the concepts and techniques of sanitation, personal hygiene, and professional attire to hospitality environments.
- Students will be able to demonstrate costing principles and trends to profitably operate hospitality establishments.
- Students will be able to demonstrate the ability to work in a variety of dining room and hospitality environments.
- Students will be able to identify, describe, compare and contrast current trends in the hospitality industry.
- Students will be able to demonstrate the skills and behaviors required during customer service to analyze, judge, and act in ways that contribute to guest satisfaction.
- Students will be able to use industry specific technology to retrieve, create, organize, and communicate information in ways that inform and enhance individual and organizational performance.
- Students will be able to develop and apply ethical and sustainable business tenets.
- Students will be able to demonstrate foundational knowledge and technical skills required for success in the culinary and hospitality industry.

Core Course Hours
CSST 9660 Food Tech & Dining Service-Section I 510
CSST 9661 Food Tech & Dining Service-Section II 510
Total Hours 1,020

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

- Students will be able to apply the concepts and techniques of sanitation, personal hygiene, and professional attire to hospitality environments.
- Students will be able to demonstrate costing principles and trends to profitably operate hospitality establishments.
- Students will be able to demonstrate the ability to work in a variety of dining room and hospitality environments.
- Students will be able to identify, describe, compare and contrast current trends in the hospitality industry.
- Students will be able to demonstrate the skills and behaviors required during customer service to analyze, judge, and act in ways that contribute to guest satisfaction.
- Students will be able to use industry specific technology to retrieve, create, organize, and communicate information in ways that inform and enhance individual and organizational performance.
- Students will be able to develop and apply ethical and sustainable business tenets.
- Students will be able to demonstrate the ability to work in a professional bakery and/or baking department.
- Students will be able to demonstrate the ability to work in a professional bakery and/or baking department.

Length of Program. Two semesters (1,020 hours)

Core Courses Hours
CSST 9650 Introduction to Baking Pastry 510
CSST 9651 Advanced Baking and Pastry 510
Total Hours 1,020

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.

Announcement of Courses
Non-Credit Courses:

Culinary and Service Skills Training
CSST 9650. Introduction to Baking and Pastry
Prereq.: CABT 9000. Introduction to Culinary Fundamentals
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 or www.ccsf.edu/cahs
Announcement of Curricula

Degree Curriculum

Training in the curriculum in Dental Assisting is designed to prepare students for employment as Registered and Certified Dental Assistants in private practice, specialty dentistry, hospitals, clinics and dental schools. Positions to which graduates may advance with experience and further training include those of dental product sales representative, insurance auditor, manager, supervisor, educator, and RDAEF. This program includes instruction in intra-oral dental functions and direct patient care/chairsite experience in dental schools, clinics and private offices and public dental care facilities in San Francisco and the Daly City/South San Francisco area. Students who have completed their training satisfactorily are qualified to take the state licensure examination to become Registered Dental Assistants and the national examination to become Certified Dental Assistants.

Accreditation. The program in Dental Assisting is accredited by the American Dental Association's Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the United States Department of Education, and is accredited by the California Board of Dentistry, Department of Consumer Affairs, State of California.

Course of Study. The two-year course of study includes instruction in traditional four-handed dental assisting techniques and in the legally allowed intra-oral functions delegated to a registered dental assistant. Courses in dental anatomy, dental materials, radiography, and preventive dentistry are prerequisites to clinical instruction. The clinical phase of the curriculum utilizes the School of Dentistry at the Arthur A. Dugoni School of Dentistry at the University of the Pacific, San Francisco; affiliated hospital clinics; and selected private dental offices.

Associate in Science Degree. The curriculum is designed so that students may satisfy the requirements for graduation from the College and receive the degree of Associate in Science.

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, offered to new applicants in the fall semester only, is open to all interested students who fulfill the following admission requirements:

1. Be in good physical and mental health.
2. Eligibility for admission to CCSF. (See in this catalog the Admissions to College - Admissions 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 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 skills 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.

Dental Assisting Major (AS)

Learning Outcomes

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

- Demonstrate various techniques of sterilization & disinfection and apply infection control and safety guidelines in the dental setting.
- Demonstrate safe working habits with the knowledge in Occupational Safety and Health Administration Hazard Communication Standard.
- Prepare for the state and national licensure exams in order to perform Registered and Certified Dental Assistant Functions authorized by legal provisions.
- Demonstrate Together Everyone Achieves More (TEAM) through frequent group exercises and activities.
- Display soft skills and critical thinking strategies through various group activities.

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 1</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>
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<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>
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<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>DENT 54 Appl Dental Sciences</td>
<td>2</td>
</tr>
</tbody>
</table>
DENT 67 Advanced Dental Procedures ............... 4
DENT 70 Clinical Chairsde Assist ..................... 7
DENT 110A Coronal Polish ............................. 0.5
Additional graduation requirements
Total Units ........................................... 33.5

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 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 administrated 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:

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

- Demonstrate various techniques of sterilization & disinfection and apply infection control and safety guidelines in the dental setting.
- Demonstrate safe working habits with the knowledge in Occupational Safety and Health Administration Hazard Communication Standard.
- Prepare for the state and national licensure exams in order to perform Registered and Certified Dental Assistant Functions authorized by legal provisions.
- Demonstrate Together Everyone Achieves More (TEAM) through frequent group exercises and activities.
- Display soft skills and critical thinking strategies through various group activities.

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><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DENT 51 Appl 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 Chairsde 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><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>DENT 54 Appl Dental Sciences 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 Chairsde Assist</td>
<td>7</td>
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<tr>
<td>DENT 110A Coronal Polish</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>33.5</strong></td>
</tr>
</tbody>
</table>

Announcement of Courses
Credit, Degree Applicable Courses:
DENT 51. Applied Dental Science I (4)
Lec-3, lab-3
Coreq.: DENT 55A and 62
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 exposure, mounting of films, and introduction to digital radiography. Lab Fee is required. 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 prosthetics 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.) P/NP only
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 CDH 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) P/NP available
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/dspst

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 P/NP available
Advisement: Placement into ENGL 93; or completion of ENGL 92 or ESL 160
Examination of disability-related issues within various contexts including sociology, bio-medicine, psychology, civil rights, education, employment, media, and culture. Topics include: myths and attitudes; living with a disability; historical, recent, and proposed legislation; global perspectives; reasonable and unreasonable accommodations; and strategies for ensuring systems change. Emphasizes ways in which to improve quality of life for people with disabilities. CSU/UC

P E 278. Personal Defense and Safety Awareness (1)
Lab-2 P/NP available
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 P/NP only
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 DSPSO 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 P/NP only
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.

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, 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
Advisement: Completion of ENGL 91 or ESL 140; or placement in ENGL 92 or ESL 150
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

resumés, 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 (90-180 hrs)
Advise: Concurrent enrollment in a Transitional Studies High School Course (TRST 1200 or higher)
A course in learning strategies designed for students with disabilities who are taking high school level classes. Students learn about their unique learning styles and apply newly-learned strategies to their course assignments in reading, writing, and/or math. May be repeated.

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 pro-
cesses, 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

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

A. Understand how scientists think and be able to think, analyze, and discuss issues with similar rigor, skepticism, and evidential support; includes understanding the dynamic nature and limits of scientific knowledge.

B. Work successfully in groups.

C. Collect data, measure, analyze results, form hypotheses from data, test hypotheses especially as relates to earth science phenomena.

D. Recognize complex problems and develop strategies for understanding and solving them (where possible with current methods).

E. 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.

F. 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.

G. Recognize the interdisciplinary nature of science and synthesize ideas from physics, chemistry, biology, and geology to evaluate earth science phenomena.

Courses Required for the Major in Earth Science

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>GEOL 10 + 10L, Physical Geology + Lab</td>
<td>5</td>
</tr>
<tr>
<td>OCAN 1 + 1L, Oceanography + Lab</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 101A, General College Chemistry</td>
<td>5 or</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>or MATH 100A, Short Calculus I</td>
<td>3-4</td>
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</table>

One of the following physics options*:

<table>
<thead>
<tr>
<th>Physics Option</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHYC 2A + 2AL, Introductory Physics + Lab</td>
<td>4</td>
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<tr>
<td>PHYC 2B + 2BL, Introductory Physics + Lab</td>
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<tr>
<td>OR</td>
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<tr>
<td>PHYC 4A + AL, Introductory Physics + Lab</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 4B + 4BL, Introductory Physics + Lab</td>
<td>4</td>
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Elective courses (choose two of the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>GEOL 11, Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>PALE 1, Introduction to Paleontology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG/GIS 110, Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1 + 1L, Physical Geography + Lab</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 18, Geology of California</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 1, Cosmic Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIO 100A, General Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIO 100B, General Biology (BIO 100A is a prereq)</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 30, Environmental Geology</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 courses 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 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

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

A. Understand how scientists think and be able to think, analyze, and discuss issues with similar rigor, skepticism, and evidential support; includes understanding the dynamic nature and limits of scientific knowledge.

B. Work successfully in groups.

C. Collect data, measure, analyze results, form hypotheses from data, test hypotheses especially as relates to geologic phenomena.

D. Recognize complex problems and develop strategies for understanding and solving them (where possible with current methods).

E. 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.

F. 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.

G. Recognize the interdisciplinary nature of science and synthesize ideas from physics, chemistry, biology, and geology to evaluate geologic phenomena.

Courses Required for the Major in Geology

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 10 Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 10L Physical Geology Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective courses (choose one):</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 30 Environmental Geology</td>
</tr>
<tr>
<td>GEOL 11 Historical Geology</td>
</tr>
<tr>
<td>PALE 1 Introduction to Paleontology</td>
</tr>
<tr>
<td>OCAN 1 Oceanography</td>
</tr>
<tr>
<td>Total Units</td>
</tr>
</tbody>
</table>

*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 is 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

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

A. Understand how scientists think and be able to think, analyze, and discuss issues with similar rigor, skepticism, and evidential support; includes understanding the dynamic nature and limits of scientific knowledge.

B. Work successfully in groups.

C. Collect data, measure, analyze results, form hypotheses from data, test hypotheses especially as relates to oceanographic phenomena.

D. Recognize complex problems and develop strategies for understanding and solving them (where possible with current methods).

E. 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 oceanographer;” especially as relates to oceanographic phenomena.

F. 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.

G. Recognize the interdisciplinary nature of science and synthesize ideas from physics, chemistry, biology, and geology to evaluate oceanographic phenomena.

Courses Required for the Major in Oceanography

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCAN 1 Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>OCAN 1L Oceanography Lab</td>
<td>1</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 4BL Physics Laboratory for Scientists and Engineers</td>
<td>3</td>
</tr>
<tr>
<td>Elective courses (choose one of the following two courses):</td>
<td></td>
</tr>
<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>4</td>
</tr>
<tr>
<td>BIO 100A + BIO 100B General Biology</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Units ................. 33 or 40

*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.

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 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. UC/CSU
GEOG 31 = BIO 31 = SUST 31

**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 = GEO 41-42-43

**GEOG 41A. Climate Change. CSU/UC**
GEOG 41A = GEO 41A

**GEOG 49. National Parks—Their Geology and Geography (3)**
Lec-3, field trips P/NP available
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 P/NP available
Prereq.: Approval of GEOG Work Experience Coordinator Repeat: GEOG/GEOG 91, 92, and 93 combined. max. credit: 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
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 ArcViewTM 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 ArcViewTM 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 P/NP available
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 20. Exploring the West (3)**
Lec-3 P/NP available
Introduction to the geology of the western portion of North America through field trips that emphasize physical and historical geology as reflected by present geologic features. Localities can include Yosemite
National Park, Lassen National Park, Mono Basin, Lake Tahoe, etc.
CSU

GEOL 20A. Long Valley Geology
GEOL 20B. Sierra Nevada Geology
GEOL 20C. Death and Owens Valley Geology

GEOL 21-22-23. Geology of the Bay Area (1-2-3)
Lec-1-2-3, field trips P/NP available
Introduction to the geology of the San Francisco Bay Area through introductory lectures followed by field trips that emphasize the physical, historical, engineering, and economic geology of the region. CSU

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 P/NP available
Fundamentals of the optical, chemical, and physical properties of gems including their historical, economic, and cultural importance. Use of basic and advanced lab techniques for studying gems. CSU

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 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)
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 P/NP available
Repeat: GEOG/GEOL 91, 92, and 93 combined, max. credit: 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, the 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; El Nino; and how all these relate to and interact with the biological organisms of San Francisco Bay. CSU/UC

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

Learning Outcomes
Upon completion of courses in Economics, students will be able to:

- Identify, analyze, apply and evaluate basic economic concepts, principles and methods.
- Identify, analyze, apply, compare and evaluate important economic models and theories.
- Identify and analyze important economic problems and issues, and identify and evaluate relevant economic policy alternatives.
- Identify and analyze the historical development of the U.S. economy, important economic institutions and the relationship between economic conditions, developments, institutions and policies and social, cultural and political developments.
- Identify, analyze, compare and evaluate historical, cultural, and economic factors in the differing economic activities of people in the United States of different races and ethnicities, and identify, analyze, apply, and evaluate alternative theories and related policy recommendations regarding economic inequality based on race and ethnicity.
- Identify, analyze and evaluate important historical, cultural, and economic factors in the differing economic activities of women in the United States, including women of different races, ethnicities, and sexual orientations, and identify, analyze, apply, and evaluate alternative theories and related policy recommendations regarding economic inequality based on gender, race, ethnicity, and sexual orientation.
• Identify, analyze, apply and evaluate the economic concepts, principles and alternative economic theories of the nature and development of international economic relations, including international trade and finance, considering important institutions and policies affecting international trade and finance.
• Identify, develop, apply and interpret the important concepts and methods of descriptive and inferential statistics relevant for economics, the other social sciences and statistical analysis in general.

**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

Prereq.: MATH 40 or DEMO of EXIT SKILLS; OR PLACEMENT IN MATH 60

Adviser: MATH 60

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 AND MATH 40 OR DEMO of EXIT SKILLS; OR PLACEMENT IN MATH 60

Adviser: MATH 60

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/UC

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/N 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 and political economic theories within a feminist perspective. Meets American Cultures requirement at UC, Berkeley. CSU/UC

ECON 30. Economics of the African American Community (3)

Lec-3  P/N 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

**Engineering and Technology**

Office: Science 148
Phone Number: (415) 239-3505
Web Site: www.ccsf.edu/engtech

**Announcement of Curricula**

**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 program 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**

The Associate in Science Degree in Engineering offers students the skills to design functional products and systems based on a foundation formed from engineering, physical science, and mathematics coursework. Graduates generally transfer to four-year institutions as juniors where they can major in a variety of engineering disciplines: computer, electrical, electronics, mechanical, civil, industrial, chemical, or manufacturing. Others seek employment as engineering technicians or technologists.

Engineering students on the transfer track are encouraged to complete additional general education college requirements so they may earn the AS in Engineering as they transfer to a four-year institution. 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. Upon completion of this degree, students will develop an understanding of the fundamental principles of the major fields of engineering. Students will develop problem solving skills that will enable them to solve a variety of practical engineering problems using the latest software tools such as word processing, spreadsheets, computational frameworks, computer aided design, and computer programming languages.

Learning Outcomes
Upon completion of this degree, students will be able to:

- Employ problem solving skills in basic engineering, physics, and chemistry topics.
- Demonstrate math skills through differential equations.
- Compose, prepare, and communicate engineering, analyses, reports and presentation using applicable software.
- Design and conduct experiments and numerical simulations, analyze, and interpret general scientific and engineering information.

Beginning courses in engineering require a foundation in algebra, geometry, advanced algebra, trigonometry, chemistry, physics, and mechanical drawing. 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 Eng: The Profession</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 10B Intro to Eng: Softwr Tools &amp; Desgn</td>
<td>2</td>
</tr>
<tr>
<td>MATH 110A Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 101A or 103A General Chemistry</td>
<td>4 or 5</td>
</tr>
</tbody>
</table>

Subsequent Semesters

**Additional Major Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 20 &amp; 20L Circuit Analysis &amp; Lab</td>
<td>4</td>
</tr>
<tr>
<td>ENGN 38 Intro to Comp for Engrs</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110B Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110C Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 125 Diff Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYC 4A &amp; 4AL Mech and Relativity</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 4B &amp; 4BL Elect &amp; Magnetism</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 4C &amp; 4CL Waves, Optics, &amp; Thermo</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>44-45</strong></td>
</tr>
</tbody>
</table>

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.

**Learning Outcomes**

Upon completion of courses in biotechnology major, students will be able to:

- Demonstrate proper aseptic technique and skills in culturing and analyzing cells.
- Demonstrate and apply knowledge of methods of quantitating and analyzing cellular biological molecules.
- Define and use SI units
- Describe, apply and perform molecular biology techniques in a project-related, step-wise manner, properly utilize materials, and properly operate and care for the standard laboratory equipment commonly used in biotechnology-related academic and industry laboratories.
- Employ the principles of proper documentation handling in experimental data collection and recordkeeping including proper methods of laboratory report development and presentation using a computer for data analysis and report generation.
- Perform common laboratory-based mathematical operations and apply critical thinking in data analysis including statistical and graphical analysis in the interpretation of experimental results.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTFC 108A Practical Math I</td>
<td>3</td>
</tr>
<tr>
<td>or 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>
</tbody>
</table>
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 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 graduation or transfer to a four-year institution to earn a bachelor’s degree in engineering technology. Several campuses of the California State University, such as the Sacramento, Long Beach, and Pomona campuses, as well as private institutions, such as DeVry University, offer graduates this opportunity. Engineering Technology students may also choose to transfer to a bachelor degree program in industrial technology offered at several campuses of the California State University, such as the San Francisco, San Jose, Fresno, and Chico campuses. The time required for completion of curricula open to graduates at these schools is normally two additional years. Students who intend to transfer should consult their advisers and the section in this catalog entitled “Transfer Information.”

Common Core. All students in Engineering Technology initially enroll in the following common core courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>ENGN 10A Intro to Engn: The Profession</td>
<td>1</td>
</tr>
<tr>
<td>ET 50 Technical Math</td>
<td>4</td>
</tr>
<tr>
<td>ET 104 Intro. to Engineering Drawing &amp; Manuf</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 110 Electronics I: Electronic Measurements</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 2A/2AL Intro Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

Subsequent Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYC 2B/2BL Intro Physics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 100A Calculus</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 12 Fund of Oral Comm or equivalent</td>
<td>3</td>
</tr>
<tr>
<td>Additional Requirements (General Ed)</td>
<td>10</td>
</tr>
<tr>
<td>Technical Courses or Electives</td>
<td></td>
</tr>
<tr>
<td>based on specific program</td>
<td>24</td>
</tr>
<tr>
<td>Total Units</td>
<td>60</td>
</tr>
</tbody>
</table>
Electronic Engineering Technology Major (AS)

General Information
The Major in Electronic Engineering Technology offers students training for employment in industries utilizing analog and digital systems, microprocessors and communication electronics. The major is designed to be a two-year course of study in which students work closely with Engineering and Electronics faculty to develop the skills needed for work in the electronics industry. Upon successful completion of the curriculum, students receive the Associate in Science Degree in Electronic Engineering Technology.

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). Students also study the basic principles of amplifiers, solid-state devices, digital techniques, circuits, and systems. In the second year, the student completes courses in advanced electronics; including microprocessors, communication systems (i.e. radios), and non-sinusoidal circuits.

Students who complete the curriculum satisfactorily are qualified for positions as technicians engaged in research and development, manufacturing, testing, installing, and maintaining electronic equipment. Graduates may advance after obtaining experience and further training to become production supervisors, sales engineers, field engineers, and test engineers.

Learning Outcomes
Upon completion of this degree, students will be able to:
- Demonstrate an ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- Employ knowledge and hands-on competence in the application of circuit analysis and design, associated software, analog and digital electronics, and microcomputers to the building, testing, operation, and maintenance of electronic systems.
- Employ knowledge and hands-on competence in the applications of physics to electronics circuits in a rigorous mathematical environment.
- Demonstrate technical and communication skills effectively in a group environment.

Students must complete each course with a grade of “C” or higher in order to be awarded the Associate in Science Degree in Electronic Engineering Technology.

Courses Required for the Major in Electronic Engineering Technology

Course Units
(The core required courses are identical to the core required for the Mechanical Engineering Technology Major)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 10A Intro to Engg: The Profession</td>
<td>1</td>
</tr>
<tr>
<td>ET 50 Technical Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>ET 104 Intro to Engineering Drawing &amp; Manuf.</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 101 Electronics I: Elec Measure &amp; Passive Cir.</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 2A/2AL Introductory Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

Specialization Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYC 2B/2BL Introductory Physics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 100A Short Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 12 Fundamentals of Oral Comm or equivalent</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 102A Elec II: Basic Active Analog Circ &amp; Meas.</td>
<td>3</td>
</tr>
</tbody>
</table>

ELEC 102B Elec II: Basic Digital Circ & Meas. 3
ELEC 103A Elec III: Intermed Analog Circ & Meas 3
ELEC 103B Elec III: Intermed Digital Circ & Meas 3
ELEC 104A Elec IV: Analog & Digital Comm Elec 3
ELEC 104B Elec IV: Micro-controller Interfacing 3
BTEC 221 Biotech Process Instrumentation 2
Technical Electives 4

Total Units 49

Technical Electives must be selected from Engineering (ENGN) and/or Computer Networking & Information Technology (CNIT) courses. Please consult an engineering advisor to ensure your choices match your academic goals.

You may request to substitute courses not on the above list if you get approval of an engineering advisor. These could include mechanical courses, engineering courses, or courses in other departments.

Mechanical Engineering Technology Major (AS)

General Information
The Major in Mechanical Engineering Technology offers specialized training for employment as engineering technicians engaged in research, design, operation, maintenance, testing, or sales. The major is designed to be a two-year course of study in which students work closely with Engineering and Engineering Technology faculty to develop the skills needed for work in various engineering related industries. Specialization options are offered from the second through the fourth semester. Upon successful completion of the curriculum, students receive the Associate in Science Degree in Mechanical Engineering Technology.

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 have the option to focus on computer-aided design (CAD), advanced manufacturing (CAM), heating ventilation and air-conditioning (HVAC), or engineered plumbing systems.

Students who complete the curriculum satisfactorily are qualified for positions such as an estimator-designer, assistant operating engineer, mechanical or research technician, or junior test engineer. Graduates may advance after obtaining experience and further training to become production supervisors, sales engineers, field engineers, and test engineers.

Learning Outcomes
Upon completion of this degree, students will be able to:
- Demonstrate an ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- Perform technical calculations and solve technical problems commonly encountered in mechanical engineering technology careers.
- Function competently in a laboratory environment; making measurements safely operating technical equipment, critically analyzing and interpreting experimental results, and properly reporting on experimental results, including their potential for improvement.
- Identify, analyze, formulate and solve technical engineering problems by applying modern tools, including scientific calculators, computers, and appropriate software.
• Demonstrate technical and communication skills effectively in a group environment.

Students must complete each course with a grade of “C” or higher in order to be awarded the Associate in Science Degree in Mechanical Engineering Technology.

Required Courses for Mechanical Engineering Technology Major
(The core required courses are identical to the core required for the Electronics Engineering Technology Major)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 10A Intro to Eng: The Profession</td>
<td>1</td>
</tr>
<tr>
<td>ET 50 Technical Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>ET 40 Intro to Eng Draw &amp; Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 101 Electronics I: Elec Measure &amp; Passive Circuits</td>
<td>4</td>
</tr>
<tr>
<td>PHYC 2A/2AL Introductory Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

Subsequent Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYC 2B/2BL Introductory Physics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 100A Short Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 12 Fundamentals of Oral Comm or equivalent</td>
<td>3</td>
</tr>
</tbody>
</table>

Specialization Courses

Option 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 Intermed Comp Aided Drafting-CAD II</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 183 Adv Comp Aided Drafting-3D Modeling</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 Comp Aided Draf-Custom &amp; Auto LISP</td>
<td>3</td>
</tr>
<tr>
<td>CAD 190 Adv Comp Aided Draf-Intro to Solid Works</td>
<td>3</td>
</tr>
<tr>
<td>CAD 191 Adv Comp Aided Draf-Rend &amp; Animation</td>
<td>3</td>
</tr>
<tr>
<td>CAD 192 Adv Comp Aided Draf-CAD Based Multimed</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units Required | 42 |

Option in HVACR and Engineered Plumbing Systems

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 135A Fundamentals of Air-Cond &amp; Refrigeration</td>
<td>2</td>
</tr>
<tr>
<td>ET 135B Fundamentals of Air-Cond &amp; Refrigeration</td>
<td>2</td>
</tr>
<tr>
<td>ET 135C Fundamentals of Air-Cond &amp; Refrigeration</td>
<td>2</td>
</tr>
<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>
</tbody>
</table>

Choose 6 units from the following Technical Elective Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 24 Design Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ENGN 38 Computers in Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ET 86 Intro to Comp-Aided Manufacturing - CAM I</td>
<td>2</td>
</tr>
<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 145 Intermediate Welding Processes</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units Required | 47 |

Up to 6 units of course work can be taken from courses not on the above technical elective list with approval of an engineering advisor. These could include electronics courses, engineering courses or courses in other departments.

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**Engineering-Related Occupations**

**Certificate Curricula**

**Certificate Curricula**


**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 curricula; 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.

**Heating, Ventilation, Air Conditioning and Refrigeration Certificate**

The Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) program at City College of San Francisco offers instruction, theory, and training in design and repair of HVACR equipment. The program combines theory with practical hands-on training designed to simulate the work environment and skills needed to excel in this challenging field. The program prepares students for employment in the field and provides an opportunity for currently employed personnel to achieve a level of HVACR certification.

Students completing the program will be qualified for employment as HVACR installers, mechanics and technicians.

**Learning Outcomes**

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

- Demonstrate a strong understanding about thermodynamic properties of the steam table, dry air and psychrometric processes involved in air-conditioning cooling and heating systems.
- Calculate air-conditioning cooling and heating load calculations.
- Estimate fan horsepower from airflow quality and pressure drop for ductwork systems and water horsepower from water flow through pipes.
- Demonstrate the skills of selecting proper air conditioning units, refrigeration components, equipment and pipe sizes for fluid systems in buildings.
- Verify safety devices, record data in logs, and identify any potential problems.

Students may obtain the Certificate of Accomplishment in Heating, Ventilation, Air-Conditioning & Refrigeration by completing the following courses with a grade of “C” or higher. ET135 A, B, and C may be taken in any order.
Courses Required for the Certificate of Accomplishment in Air-Conditioning and Refrigeration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 135A Fund. of Air-Cond. and Refrig.</td>
<td>2</td>
</tr>
<tr>
<td>ET 135B Fund. of Air-Cond. and Refrig.</td>
<td>2</td>
</tr>
<tr>
<td>ET 135C Fund. of Air-Cond. and Refrig.</td>
<td>2</td>
</tr>
<tr>
<td>ET 139C Engr’d. Plumbing Systems</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>9</td>
</tr>
</tbody>
</table>

Biomanufacturing Certificate

Over the past several years an important change has been taken 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.

Learning Outcomes

Students in the Biomanufacturing certificate program will be prepared to work at a biotech company or an academic research lab as a technician in fermentation and protein purification. Upon completion of the certificate, students will be able to:

- Demonstrate understanding of and ability to work in a cGMP (current Good Manufacturing Practices) compliant environment.
- Demonstrate skills in culturing and maintaining mammalian cells including stem cells.
- Perform basic mathematical operations as applied to chemistry and biology.
- Apply knowledge of basic molecular and cellular biology to the biomanufacturing process.
- Demonstrate proper techniques used for production and purification of biologics.

The requirements for the certificate are completion of the following courses with a grade of “C” or higher.

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</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 11 Intro to the Science of Living Organisms</td>
<td>4</td>
</tr>
<tr>
<td>BTEC 101 Fermentation and Protein Purification</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 32 Intro to Medical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 40 Intro to Chemical Principles</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</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

Students in Biomedical Equipment Technician (BMET) will develop in-depth knowledge of the fundamental concepts and practice in the use, maintenance, and repair of medical equipment such as heart-lung machines, dialysis machines, medical imaging machines, and defibrillators. Unlike electrocardiograph and electroencephalograph technicians, who specialize in one type of equipment, biomedical equipment technicians (BMET) will be familiar with many different medical devices. Biomedical equipment technicians work in hospitals and research organizations. They also work for manufacturers’ sales departments and for research and development departments.

Most technicians work under the direction of biomedical or clinical engineers.

Learning Outcomes

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

- Identify and evaluate biomedical equipment in terms of engineering design, operations, and safety and the impact on human physiological systems.
- Describe and summarize medical equipment management program policies and regulatory compliance.
- Describe, verify, and troubleshoot medical equipment used in operating rooms, imaging systems, respiratory systems, anesthesia systems, and cardiac monitoring systems.
- Identify, diagnose, and repair medical communication network.

Students may obtain the Certificate of Accomplishment in Biomedical Equipment Technician (BMET) by completing the following courses with a grade of “C” or higher in each course. A minimum of two thirds of the courses must be taken at City College of San Francisco. Besides the courses listed below, an introductory course in AC/DC Electricity such as ELEC 101 or equivalent is required, which serves as a prerequisite for several BMET courses.

Courses Required for the Certificate of Accomplishment in Biomedical Equipment Technician

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 14 Introduction to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BMET 250 Introduction to Biomedical Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>BMET 251 Introduction to Medical Equipment Management</td>
<td>3</td>
</tr>
<tr>
<td>BMET 252 Biomedical Instrumentation - Surgical Equipment</td>
<td>1</td>
</tr>
<tr>
<td>BMET 253 Biomedical Instrumentation - Medical Imaging Equipment</td>
<td>1</td>
</tr>
<tr>
<td>BMET 254 Biomedical Instrumentation - Respiratory Equipment</td>
<td>1</td>
</tr>
<tr>
<td>BMET 255 Biomedical Instrumentation - Anesthesia Equipment</td>
<td>1</td>
</tr>
<tr>
<td>BMET 256 Biomedical Instrumentation - Medical Equip. Networking</td>
<td>1</td>
</tr>
<tr>
<td>BMET 257 Biomedical Instrumentation - Equipment Monitoring</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</td>
</tr>
</tbody>
</table>
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.

Students in the Biotechnology Certificate will be prepared to work at a biotech company or academic research institution.

Learning Outcomes

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

- Define and use SI units.
- Describe and apply molecular biology techniques in a project-related, step-wise manner, properly utilize materials, and properly operate and care for the standard laboratory equipment used in biotechnology research and assay laboratory techniques.
- Employ the principles of proper documentation handling in experimental data collection and record keeping including proper methods of laboratory report development and presentation using a computer for data analysis and report generation.
- Apply critical thinking in data analysis including statistical and graphical analysis, and in the interpretation of experimental results.

The requirements for the certificate are completion of the following courses with a grade of “C” or higher.

Courses Required for the Certificate of Accomplishment in Biotechnology

Students must complete the following courses with a grade of “C” or higher:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 12A GMP Compliance</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>
<tr>
<td>Total Units</td>
<td>8</td>
</tr>
</tbody>
</table>

The following courses are recommended but not required: M B 12, BTEC 93, 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.

Learning Outcomes

Students in the Bioprocess Instrumentation and Control Certificate will be prepared to work at a biotech company or other industries, such as food, beverages, and petroleum, in which process control plays an important role. Upon completion of the certificate, students will be able to:

- Demonstrate knowledge of cGMP and GLP compliance.
- Prepare validation protocols for biotechnology equipment.
- Diagram and measure process control.
- Evaluate process control equipment.

The requirements for the certificate are completion of the following courses with a grade of “C” or higher.

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 I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 40 Elementary Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or a higher level math class</td>
<td>1</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>
<tr>
<td>Total Units</td>
<td>8</td>
</tr>
</tbody>
</table>

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 experience or coursework in science is necessary, and you will gain valuable work experience in an internship as a lab assistant.

Learning Outcomes

Students in the Biotechnology Lab Assistant Certificate will be prepared to work at a biotech company or academic research lab as a Laboratory Assistant. Upon completion of the certificate, students will be able to:

- Demonstrate knowledge of cGMP (current Good Manufacturing Practices) and GLP (Good Laboratory Practices) compliance.
- Perform basic mathematical operations in the context of chemistry and biology.
- Document, write, communicate and perform laboratory protocols.
- Be prepared to interview for a laboratory Assistant position.
- Demonstrate proficiency in the laboratory techniques commonly used in the biotechnology industry.

The requirements for the certificate are completion of the following courses with a grade of “C” or higher.

Courses Required for the Certificate of Accomplishment in Biotechnology Lab Assistant

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 108B Practical Math I</td>
<td>2</td>
</tr>
<tr>
<td>or MATH 40 Elementary Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or a higher level math class</td>
<td>1</td>
</tr>
<tr>
<td>ELEC 101; BTEC 5; BTEC 101</td>
<td>8</td>
</tr>
</tbody>
</table>

Recommended elective courses are: ELEC 101; BTEC 5; BTEC 101
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.

**Learning Outcomes**

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

- Retrieve and analyze sequences and structures from public databases using bioinformatics tools such as BLAST, genome browsers, multiple sequence alignment programs, and molecular graphics programs.
- Compare the genome organization of model organisms by assessing their size and complexity of the coding and non-coding regions using data available from new generation DNA sequencing.
- Combine bioinformatics tools and molecular biology techniques to perform common tasks such as PCR or restriction enzyme analysis.
- Describe how genomics is applied to solve practical problems including diagnostics, forensics, drug discovery, and personal genomics.
- Use basic computer skills to store and manipulate small amounts of bioinformatics data.

The requirements for the certificate are completion of the following courses with a grade of “C” or better:

**Courses Required for the Certificate of Accomplishment in Genomics Technology**

<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>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>CS 160A Introduction to the UNIX Operating System</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total units</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

**Recommended elective courses:** CSI13A

This certificate includes instruction in the design and sizing of a wide variety of plumbing systems and the application of basic fluid flow principles. These skills are necessary in the design of domestic water, rainwater, sanitary drainage, fire protection, fuel gas, compressed air, hydronic and steam heating systems. Students completing this certificate program will be qualified to work alongside engineers as a plumbing systems designer.

**Learning Outcomes**

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

- Apply basic principles of plumbing systems to the design of drain, waste, vent, hot water, cold water and fuel gas systems.
- Interpret plumbing codes and regulations and apply the codes in a practical way.
- Calculate system and equipment sizes based on engineering principles for plumbing systems including building utilities, medical gas, compressed air, decorative pools, swimming pools water treatment, waste water treatment, automatic fire sprinklers.
- Propose solutions to problems dealing with basic principles of fluid flow including the general energy equation, friction losses, pressure on submerged surfaces, buoyant forces, flow measure-

**Recommended electives:** M B 12; GEN 10, 11; BIO 91
ment, pump and fan performance characteristics and flow of real fluids in open and closed conduits.

- Employ standard practices in fire protection system design.

Students must complete each course with a grade of “C” or higher. Students must complete 2 of 3 courses at City College of San Francisco.

**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><strong>Total Units</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

**Environmental Control Technology Certificate**

Environmental Control Technology is a hands-on 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.

**Learning Outcomes**

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

- Operate and maintain mechanical heating and cooling systems in buildings
- Ensure that HVAC equipment operates safely, economically, and within established limits
- Monitor meters, gauges, and computerized controls
- Manually control equipment and make adjustments using hand and power tools
- 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><strong>Total Units</strong></td>
<td><strong>14</strong></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 and careers.

**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 roll 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.

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.

**Courses Required for the Certificate of Accomplishment in Sustainability**

<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>
<tr>
<td><strong>Elective Courses: Choose 6 units from the following:</strong></td>
<td></td>
</tr>
<tr>
<td>Biology Department</td>
<td></td>
</tr>
<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>BIO 80C Topics in Biology-Agroecology</td>
<td>1-3</td>
</tr>
<tr>
<td>ECOL 20 Introduction to Ecology with Laboratory/Field Study</td>
<td>4</td>
</tr>
<tr>
<td>Business Department</td>
<td></td>
</tr>
<tr>
<td>GNBS 127 Green and Sustainable Organizational Practices</td>
<td>3</td>
</tr>
<tr>
<td>Earth Sciences Department</td>
<td></td>
</tr>
<tr>
<td>GEOG 1 Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4 Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 7 Economic Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4A Current Topics in Earth Science: Climate Change</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 30 Environmental Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 30L Environmental Geology Lab</td>
<td>1</td>
</tr>
<tr>
<td>Engineering and Technology Department</td>
<td></td>
</tr>
<tr>
<td>BTEC 5 Briefings In Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 223 Introduction to Environmental Monitoring</td>
<td>1</td>
</tr>
<tr>
<td>ENRG 3L Introduction to Alternative Energy</td>
<td></td>
</tr>
</tbody>
</table>
Energy Laboratory .............................................1
ENRG 130 Residential Energy and
Efficiency Measures ........................................2
Social Sciences Department
POLS 22 Environmental Politics and Policy .............3
Total Units .................................................... 17

**Basic Electronics Certificate**

The Certificate in Basic Electronics includes instruction in the fundamental principles of electronics. Students will be able to apply this knowledge and understanding to perform tests, troubleshooting and repair of analog and digital electronic circuits and instruments. Students will be instructed in the building of circuits that demonstrate an understanding of basic electronics device principles. Students will also learn how to develop procedural methods in troubleshooting and repair of analog and digital circuits and instruments.

**Learning Outcomes**

Upon completion of the Basic Electronics Certificate, students will be able to:

- Construct electronic circuits from schematics and demonstrate their function.
- Verify circuit performance using typical electronic test and measurement equipment following industry accepted procedures.
- Perform calculation as relates to circuit components and parameters.
- Integrate discrete and IC components into functioning end products.
- Resolve schematic and build errors. Document and describe steps taken.

Students may obtain the Certificate of Accomplishment in Basic 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 Basic Electronics**

<table>
<thead>
<tr>
<th>Courses</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**

The Certificate in Intermediate Electronics provides more advanced electronics instruction building upon foundations provided in the Basic Electronics Certificate. Students will be instructed in the implementation of projects utilizing industry standard electronic devices, learning their associated functions and principles. With these additional skills and knowledge, the student will be able to resolve common software, hardware, and interface errors in electronic systems of increasing complexity.

**Learning Outcomes**

Upon completion of the Intermediate Electronics Certificate, students will be able to:

- Construct electronic circuits using discrete and IC components from schematics and demonstrate its function.
- Resolve and verify circuit performance using typical electronic test and measurement equipment following industry accepted procedures.
- Confirm and determine circuit parameter and component values via related rules and calculation.
- Design and merge analog and digital technology in modern radio circuits.
- Describe a digital design, implement and test it using design software tools.
- Understand the basic architecture of a computer system and program a micro-controller to interface to electrical and electromechanical devices.

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>Courses</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**

This certificate includes instruction in technical drawing and the use of software tools to create 2-dimensional and 3-dimensional models for use in architecture, building science, and building information models. Students will gain significant practice in creating models through extensive lab work using industry standard software tools. This certificate program provides skills valuable to architects, construction trades, and engineers in industries where high quality building drawings are needed.

**Learning Outcomes**

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

- Effectively and efficiently create architectural drawings using CAD and illustration software programs.
- Demonstrate the drawing and illustration skills essential for employment in architectural, construction and building trades industries.
- Plan and evaluate which software or technique is most effective for a particular goal.
- Draw and dimension precisely as per ANSI standards.
- Demonstrate familiarity with industry standards and their purpose in architectural drawings and documents.

Students must complete each course with a grade of "C" or higher.

**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>BIM 120 Revit Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>Elective Courses: Choose 6 units 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>
</tbody>
</table>
CAD 187 HVAC/Pipe CAD Design ...................... 3
CAD 188 Adv. CAD-Customizing & AutoLISP .......... 3
CAD 190 Adv. CAD-Intro to SolidWorks ............... 3
CAD 191 Adv. CAD-Rendering and Animation ........ 3
CAD 192 Adv. CAD-CAD Based Multimedia .......... 3
Total Units .......................................... 15

**Computer Aided Drafting (CAD) Certificate**

This certificate includes instruction in technical drawing and the use of software tools to create 2-dimensional and 3-dimensional models. Students will gain significant practice in creating models through extensive lab work using industry standard software tools. This certificate provides skills valuable to machinists, manufacturers, architects, technicians, and engineers in industries where high quality technical drawings are needed.

**Learning Outcomes**

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

- Effectively and efficiently create drawings using CAD and illustration software programs.
- Demonstrate the drawing and illustration skills essential for employment in architectural, engineering, construction and manufacturing industries.
- Plan and evaluate which software or technique is most effective for a particular goal.
- Draw and dimension precisely as per ANSI standards.
- Demonstrate familiarity with industry standards and their purpose in technical documents and illustrations.

Students must complete each course with a grade of “C” or higher.

**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 .............. 1</td>
<td></td>
</tr>
<tr>
<td>CAD 181 Intro to Comp Aided Drafting-CAD I ...... 3</td>
<td></td>
</tr>
<tr>
<td>CAD 182 Inter Comp Aided Drafting-CAD II .......... 3</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Courses: Choose 9 units from the following:**

- CAD 183 Adv Comp Aided Drafting-3D Mod .............. 3
- CAD 184 Structural CAD Drafting ............... 3
- CAD 187 HVAC/Pipe CAD Design ................. 3
- CAD 188 Adv CAD-Customizing & AutoLISP .......... 3
- CAD 190 Adv CAD-Intro to Solid Works .......... 3
- CAD 191 Adv CAD-Rendering & Animation .......... 3
- CAD 192 Adv CAD-CAD Based Multimedia .......... 3

Total Units .......................................... 16

Students who have completed ET 104, or who can demonstrate prior drafting and drawing skills by performing at satisfactory level on a test can have CAD 180 waived from the above requirements.

**Manufacturing and Fabrication Certificate**

This certificate program is designed to provide the student with instruction in basic welding, machining, and fabrication processes. Students completing this certificate program will be qualified for manufacturing apprenticeships or internships.

**Learning Outcomes**

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

- Weld structural steel using arc welding equipment
- Plan, design, and fabricate basic multi-part prototypes
- Safely operate machine shop and welding equipment

Students must complete each course with a grade of “C” or higher.

**Courses Required for the Certificate of Accomplishment in Manufacturing and Fabrication**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 140 Manufacturing Processes .................. 3</td>
<td></td>
</tr>
<tr>
<td>WELD 144 Welding Processes ........................ 2</td>
<td></td>
</tr>
</tbody>
</table>

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

- CAD 190 Advanced Computer Aided Drafting-Introduction to SolidWorks ................. 3
- ELEC 101 Electronics I: Electronics Measurements and Passive Circuits ............. 3
- WELD 146 Manufacturing Blueprint Reading .......... 3
- WELD 147 Welding Inspection Technology .......... 4
- ENGN 48 L Introductions to Engineering & Technology - Laboratory ................... 1
- ET 104 Introduction to Engineering Drawing and Manufacturing .......................... 2

(ENGN 48L & ET 104 must both be taken for the 3 units to apply towards the certificate)

Total Units .......................................... 8-9

**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 .............. 3</td>
<td></td>
</tr>
<tr>
<td>GEOG/GIS 111 Intermediate GIS Applications .... 3</td>
<td></td>
</tr>
<tr>
<td>GEOG/GIS 112 Advanced GIS .................. 3</td>
<td></td>
</tr>
</tbody>
</table>

Total Units .......................................... 9

**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 respiratory 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 and governmental regulations. Features lectures by scientists currently working in the biotechnology industry. CSU
Formerly BIO 50.

BTEC 6. Basics of Cell Culture (1)
Lec-9, lab-27 (total hrs) P/NP available
Advisory: 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 course 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), field trips P/NP Only
PREREQ.: BTEC 14A
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 the 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 21 OR 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
Corereq.: 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 laboratory 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 immunoassays 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 laboratory 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
ADVISE: BIO 11 OR 101A OR 65
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 11 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 107=ET 107

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 108A=ET 108A=CDEV 108A

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 120. Molecular and Cell Biotechnology (5)
Lec-3, lab-6 P/NP available
Advise: BIO II
A thorough introduction to the principles and techniques of molecular and cell biology. This is a required course for the Biotechnology Technician Preparation curriculum. CSU
Formerly BIO 60.

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
An introduction to the theory and application of process control and instrumentation as applied to the Biotechnology Industry. Survey of Electrical and Electronic concepts, Transducers, Process Controllers, Reliability, Data Loggers. CSU
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 preservations. 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

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 in basic AutoCAD)
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 devices 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 hours 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:
ELEC 101. Electronics I: Electronic Measurements and Passive Circuits (3)
Lec-2, lab-3
Prereq.: ET 108A/BTEC 108A/CDEV 108A or MATH 35 or demonstration of ET 108A or MATH 35 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 211=CNIT 211

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
An introduction to the theory and application of process control and instrumentation as applied to the Biotechnology Industry. Survey of Electrical and Electronic concepts. Transducers. Process Controllers. Reliability, Data Loggers. CSU
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 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:
ENGN 1A. Measurements and Plane Surveying (3)
Lec-2, lab-3
Prereq.: MATH 95 or ET 50 or equivalents (e.g. 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

ENGN 1B. Plane Surveying (3)
Lec-2, lab-3
Prereq.: ENGN 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

ENGN 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

ENGN 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

ENGN 20. Introduction to Circuit Analysis (3)
Lec-3
Prereq.: ENGN 10B, MATH 110C and PHYC 4B, both of which may be taken concurrently and concurrent enrollment or completion of ENGN 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, Thevenin 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
Advise: 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
P/NP available
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
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
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
Prereq.: ET 108A/CDEV 108A or demonstration of ET 108A/CDEV 108A exit skills
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. CSU
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. CSU

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. CSU

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.]
Designed to accommodate engineering students with varying backgrounds and work experience who wish to learn the basic concepts of air-conditioning and refrigeration. Emphasis on practical engineering problems.
The psychometrics of air and water-vapor mixtures, basic elements of air-conditioning, and psychometric processes. Use of psychometric instruments and psychrometric chart graphical analysis of the processes. CSU

ET 135B. 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 135C.]
Cooling loads, heat transfer equipment, air handling equipment, and 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. CSU
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. CSU

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. CSU

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. CSU

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. CSU

Geographic Information Systems

Credit, Degree Applicable Courses:
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 110 = GEOG 110

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. CSU
GIS 111 = GEOG 111

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. CSU
GIS 112 = GEOG 112

Sustainability

SUST 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. UC/CSU
SUST 31=BIO 31=GEOG 31

SUST 91. Applied Research in Sustainability (3)
Conf-1, work-10-20
Prereq.: BIO 31, ENRG 3, GNBS 125
Repeat: Maximum credit: 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 P/NP only
Coreq.: Concurrent enrollment in final semester or technical certificate program
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
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
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
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, inner shield, 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-T)
Associate in Arts in English for Transfer. 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, precise 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; the required 3 units of Core Genre courses will provide a deeper understanding of literary forms. An additional requirement of 3 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.

Learning Outcomes
1. Demonstrate knowledge of and familiarity with genres, themes, and contexts of variety of works of literature.
2. Demonstrate knowledge of and familiarity with methods of Interpreting literature across genres.
3. Assess, evaluate, and analyze ideas expressed in text or in spoken language.
4. Create (write or present) coherent arguments that exhibit clear prose and synthesize diverse bodies of knowledge.
5. Conceptualize, write, workshop, present for feedback, revise and edit an original text.

Degree Requirements. Students who wish to earn the Associate in Arts in English for Transfer (AA-T) must complete 60 CSU transferable units with at least a 2.0 grade point average. This must include the units required for full completion of the IGETC or CSU GE curriculum and the 18 units for the major as specified below. Each course in the major must be completed with a grade of “C” or better. Courses used to meet the major requirement may also be used to meet IGETC or CSU GE requirements.

Courses Required for the Major in English
Group 1: Core Reading and Composition Courses-6 units
Course Units
ENGL IA University-Parallel Reading & Comp ...............3
ENGL IB University-Parallel Reading & Comp ...............3

Group 2: Core Surveys-6 units
ENGL 30A Survey of American Literature, part 1 ............3
ENGL 30B Survey of American Literature, part 2 ............3
ENGL 46A Survey of Literature in English, part 1 ............3
ENGL 46B Survey of Literature in English, part 2 ............3
ENGL 46C Survey of Literature in English, part 3 ............3

Note: Group 2 courses not used toward the 6 required units may be used to fill Group 3 or Group 4 requirements.

Group 3: Core Genre Courses-3 units
ENGL 43 Introduction to the Study of Poetry .................3
ENGL 32 Shakespeare ........................................3
ENGL 33 Introduction to the Study of Drama .................3

Note: Group 3 courses not used toward the 3 required units may be used to fill Group 4 requirement.

Group 4: Specialized Literature Courses-3 units
CLAS 35 Tragic Dramas of Greece ............................3
ENGL 1C Advanced Composition ................................3
ENGL 20 Modern British and Amer Literature ...............3
ENGL 32A Early African American Fiction ...................3
ENGL 32B Contemporary African Amer Fiction ..............3
ENGL 36 African Amer Literature-A Survey .................3
ENGL 41 Writing in Connection with Reading of Imp Books of the 19th & 20th Centuries ..........3
ENGL 44A-44B Survey of World Literature, Past & Present ..................................................3
ENGL 48A-O Selected Topics ..................................3
ENGL 50 Myth and Literature ..................................3
ENGL 55 Survey of Gay & Lesbian Literature ...............3
ENGL 57 Women & Literature .................................3
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 Exam 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  - Exemption 1A and 1B/1C
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
8. 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 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 challenging English placement see the Testing Office’s retake policy (http://www.ccsf.edu/NEW/en/future-students/future-credit-students/take_a_placementtest/test_retake_policy.html) or meet with the English Eligibility Coordinator in Batmale 514 to schedule a written essay challenge exam. Access the English Eligibility website at https://sites.google.com/a/mail.ccsf.edu/eligibility/.

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 10 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 6
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 91.

ENGL W. 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.: English Placement Test, completion of ESL 120, or placement in ESL 130 or higher
Coreq.: Not open to students who are currently enrolled in ENGL 9, 19, or 91. Not open to students who have completed English 9. Not recommended for students currently enrolled in English 96 or higher. This course presents a basic grounding and practice in reading comprehension, vocabulary, and study skills. The emphasis is on comprehending short selections and increasing awareness of reading processes.

ENGL 91. Introduction to Basic Reading and Writing (6)
Lec-6, lab-1.5
Prereq.: Completion of ENGL L or placement in ENGL 90 or 91
This course presents a 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 or Placement in ENGL 92
Advise: 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 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).
ADVISE: 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 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.: ENGR 96 or PLACEMENT in ENGL 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
University-parallel reading, writing, and critical thinking applied to literature, including poetry, drama, short fiction, and the novel. Students will write 8-10,000 words of expository and argumentative essays and other writing, employing methods of literary analysis and skills of critical thinking. CSU/UC

ENGL 1C. Advanced Composition (3)
Lec-3, field trips
PrEREQ.: ENGL 1A
An advanced composition course that helps students hone a style appropriate for upper-division work which integrates the close reading of non-fiction and the writing of expository and argumentative essays. Focus on sharpening critical thinking skills, analyzing and evaluating texts, and writing text-based prose. UC/CSU

ENGL 8. Words (3)
Lec-3
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)
PrEREQ.: ENGL 96
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
PrEREQ.: ENGL 96
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
PrEREQ.: ENGL 92 or ESL 160; or PLACEMENT in ENGL 93 or ESL 170
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 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 English 1A (1.5)
Lec-1.5
PrEREQ.: PLACEMENT IN ENGL 1A OR COMPLETION OF ENGL 96
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
PrEREQ.: 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
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
Adviser: Completion/concurrent enrollment in 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 30A. American Literature, Beginnings to Civil War (3)
Lec-3  P/NP Available
Prereq: ENGL 96 or Placement in ENGL 1A
ENGL 30A surveys American literature from its Native and European beginnings to the Civil War. It is designed to introduce students to the analysis of a variety of texts forming and critiquing the idea of America and a national literature. UC/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/UC
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
Not open to students who are enrolled in or who have completed the same ENGL 48 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/UC

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
The development of the drama in English, from the medieval through the sixteenth century. Students study plays from major historical periods, Medieval, English Renaissance, through the sixteenth century, 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 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
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 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 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
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

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
Advising: Background in Health Care
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
Designed for health care professionals in all health fields with intermediate English language proficiency. Integrated language skills on themes such as job resumes 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 Professionals: 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 settings, strategies for communicating with special-needs patients, 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
Advising: Concurrent enrollment in ESL 140 or 150
Review and practice of intermediate grammatical patterns in academic writing, with a focus on the paragraph level; application of editing/prooﬁreading 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  P/NP only
Prereq.: Completion of ESL 150 or ENGL 92 with a grade of C or higher or placement in ESL 160 or above
Advising: Concurrent enrollment in ESL 160, ENGL 96
Review and practice of advanced grammatical patterns in academic writing for students whose native language is not English; application

ESL for Health Professionals Certificate*

*This program is pending state approval.

Please refer to the online version of the Catalog.
of editing/proofreading strategies and skills to improve the quality and accuracy of written college work. Recommended for ESL 160 or 82 or ENGL 93 or 96 students whose first language is not English who want additional practice in these skills.

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
Pre-college reading skills and strategies. Low-intermediate level vocabulary. Formerly ESL 120B

ESL 120W. Low-Intermediate Academic ESL (3)
Lec-3
Pre-college practice in writing academic paragraphs, short essays and reports. Low-intermediate level vocabulary and grammar study. Formerly ESL 120A

ESL 122. Low-Intermed. 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-Intermed. Listening/Speaking (2)
Lec-3 P/NP available
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 P/NP available
Prereq.: Placement in ESL 120 or 42 or completion of ESL 110
Systematic practice in American English sounds and speech segmentals and suprasegmentals, for improved reading and oral communication, especially listening and pronunciation. Recommended for ESL 120, 130, and 140 students with pronunciation problems.

ESL 51A. ESL for Child Development (3)
Lec-3 P/NP available
Prereq.: Placement in ESL 130 or higher or completion of ESL 120 or 42; may be taken concurrently with either CDEV 65 or 66.
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 available
Prereq.: Placement in ESL 140 or completion of ESL 130
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 quality, and physical presentation. Recommended for ESL 140, 150, 160 students with pronunciation problems. 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
Advise: ESL 69 or ESL 142
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 increasingly 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 correspondence 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 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 Computer Assisted Intermediate
- 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 Conversation
- ESL Intermediate High Focus Skills
- ESL Intermediate High Reading
- ESL Advanced Low 9

Vocational ESL Programs

- ESL/ABE for Automotive Technology
- ESL Beginning Workplace Skills
- ESL for Health Professionals
- 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

These courses in English as a Second Language will provide language skills for students with little or no English language skills.

Learning Outcomes
Upon completion of this certificate, students will be able to:
- Recognize a limited range of simple spoken isolated words, phrases and questions.
• Demonstrate ability to copy letters of the alphabet, numbers and isolated words and phrases.
• Engage in very limited conversation.

Students may obtain a Certificate of Completion in ESL Literacy upon successful completion of any of the following courses.

Courses Required for the Certificate of Completion in ESL Literacy

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3000 Native Language Literacy</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3010 ESL Literacy A</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3015 ESL Literacy A-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3016 ESL Literacy A-B</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 4015 ESL Literacy A</td>
<td>45</td>
</tr>
<tr>
<td>ESLN 3020 ESL Literacy B</td>
<td>180</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>45-180</strong></td>
</tr>
</tbody>
</table>

**ESL Beginning Low 1 Noncredit Certificate**

These courses in English as a Second Language will provide language skills for students with little or no English language skills.

**Learning Outcomes**

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

• Demonstrate general recognition of high frequency spoken words, phrases and questions in familiar contexts.
• Demonstrate ability to correctly apply short phrases and sentences in learned common social conversations.
• Construct limited meaning from reading materials using familiar words on learned topics.
• Demonstrate ability to print numbers, letters, a limited number of basic sight words and previously learned simple sentences and phrases.

Students may obtain a Certificate of Completion in ESL Beginning low 1 upon successful completion of any of the following courses.

Courses Required for the Certificate of Completion in ESL Beginning Low 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3100 Beginning Low l</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3105 Beginning I-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3106 Beginning I-B</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>90-180</strong></td>
</tr>
</tbody>
</table>

**ESL Beginning Low 2 Noncredit Certificate**

These courses in English as a Second Language develop and expand basic English skills.

**Learning Outcomes**

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

- Recognize a range of frequently used spoken words, phrases, simple learned expressions and questions in familiar contexts.
- Demonstrate ability to communicate survival needs using very simple learned phrase and sentences and begin to engage in social communication.
- Construct limited meaning from simple print materials on familiar topics.
- Demonstrate ability to print numbers, letters, and a limited number of basic sight words, phrases, and simple sentences.

Students may obtain a Certificate of Completion in ESL Beginning Low 2 upon successful completion of any of the following courses.

Courses Required for the Certificate of Completion in ESL Beginning Low 2

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3200 Beginning Low 2</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3205 Beginning 2-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3206 Beginning 2-B</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>90-180</strong></td>
</tr>
</tbody>
</table>

**ESL Beginning Low 1-2 Intensive Noncredit Certificate**

This is an ESL Beginning Low accelerated study certificate. These courses in English as a Second Language develop and expand Beginning Low English skills.

**Learning Outcomes**

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

• Demonstrate general understanding of commonly used spoken words, phrases, simple learned expressions and questions in familiar contexts.
• Determine the meaning of new words in simple written material by applying basic word analysis and vocabulary development skills.
• Produce sentences and short notes related to common and personal topics.

Students may obtain an ESL Beginning Low 1-2 Intensive Noncredit ESL Certificate of Completion upon successful completion of any course.

Courses Required for the Certificate of Completion in ESL Beginning 1-2 Intensive

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3150 Beginning Low 1-2 Intensive</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 4150 Beginning Low 1-2 Intensive-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 4151 Beginning Low 1-2 Intensive-B</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>90-180</strong></td>
</tr>
</tbody>
</table>

**ESL Beginning 1-4 Multi-Level Noncredit Certificate**

This certificate is designed to meet the needs of students with various levels of Beginning English proficiency. These courses in English as a Second Language develop and expand basic English skills.

**Learning Outcomes**

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

- Demonstrate general understanding of spoken English from common activities in familiar contexts.
- Construct limited meaning from simplified reading materials on familiar topics.
- Demonstrate ability to write basic personal information lists and simple messages.

Students may obtain an ESL Beginning 1-4 Multi-level Noncredit ESL Certificate of Completion upon successful completion of any of the following courses.
Courses Required for the Certificate of Completion in ESL Beginning 1-4 Multi-Level

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3440 Beginning 1-4 Multi-level</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3445 Beginning 1-4 Multi-level A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3446 Beginning 1-4 Multi-level B</td>
<td>90</td>
</tr>
</tbody>
</table>

Total Hours: 90-180

**ESL Beginning Low Conversation Noncredit Certificate**

This certificate develops speaking skills for Beginning Low ESL students. Students practice communicating survival and personal needs using very simple learned phrases and sentences. These courses in English as a Second Language expand Beginning Low English skills.

**Learning Outcomes**

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

- Compose simple questions to request basic factual or personal information.
- Respond to simple questions with short-phrase answers.
- Demonstrate ability to ask for and respond to requests for simple clarification.
- Engage in simple conversational exchanges on limited and familiar topics using learned phrases.
- Demonstrate ability to give simple commands and express caution using short phrases.

Students may obtain an ESL Beginning Low Conversation Certificate of Completion upon successful completion of any two courses.

**Courses Required for the Certificate of Completion in ESL Beginning Low Conversation**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3127 Speaking-Beginning Low</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3144 Pronunciation-Beginning</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4127 Beginning Low Conversation</td>
<td>45</td>
</tr>
<tr>
<td>ESLN 3205 Beginning Low 2 (90A)</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3206 Beginning Low 2 (90B)</td>
<td>90</td>
</tr>
</tbody>
</table>

Total Hours: 135-180

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**ESL Beginning Low Focus Skills Noncredit Certificate**

Beginning Low skills are emphasized for students who want focused practice in listening, speaking, reading and writing. These courses in English as a Second Language develop and expand Beginning Low English skills.

**Learning Outcomes**

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

- Demonstrate ability to write basic personal information, lists and simple messages.

Students may obtain an ESL Beginning Low Focus Skills Noncredit Certificate of Completion upon successful completion of any two courses.

**Courses Required for the Certificate of Completion in ESL Beginning Low Focus Skills**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3129 Writing-Beginning Low</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3126 Listening-Beginning Low</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3128 Reading-Beginning Low</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3127 Speaking-Beginning Low</td>
<td>90</td>
</tr>
</tbody>
</table>

Total Hours: 180

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**ESL Beginning High 3 Noncredit Certificate**

These courses in English as a Second Language develop and expand Beginning Low 2 English skills.

**Learning Outcomes**

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

- Demonstrate limited understanding of spoken English from learned topics and familiar contexts.
- Determine ability to speak English about basic needs and routine activities in simple conversations.
- Recognize words in familiar contexts using visual clues and previously learned material, demonstrating limited comprehension of simplified reading material.
- Produce grammatically correct sentences related to common and personal topics.

Students may obtain a Certificate of Completion in ESL Beginning High 3 upon successful completion of any of the following courses.

**Courses Required for the Certificate of Completion in ESL Beginning High 3**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3300 Beginning High 3</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3305 Beginning High 3-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3306 Beginning High 3-B</td>
<td>90</td>
</tr>
</tbody>
</table>

Total Hours: 90-180

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**ESL Beginning High 4 Noncredit Certificate**

These courses in English as a Second Language develop and expand Beginning High 4 English skills.

**Learning Outcomes**

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

- Demonstrate limited understanding of spoken English from learned topics and familiar contexts.
- Demonstrate ability to speak English about basic needs and routine activities in simple conversations.
- Demonstrate limited comprehension of simplified reading material.
- Produce grammatically correct sentences related to survival and personal topics using appropriate language structures and forms appropriate for Beginning High level 4.

Students may obtain a Certificate of Completion in ESL Beginning High 4 upon successful completion of any two of the following courses.
Courses Required for the Certificate of Completion in ESL Beginning High 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3400 Beginning High 4</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3440 Beginning High 3-4 Multi-level</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3405 Beginning High 4-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3406 Beginning High 4-B</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>180-360</strong></td>
</tr>
</tbody>
</table>

ESL Beginning High 3-4 Intensive Noncredit Certificate

This is a Beginning High accelerated study certificate. These courses in English as a Second Language develop and expand Beginning High English skills.

Learning Outcomes

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

- Demonstrate general understanding of spoken English with some unfamiliar words well enough to participate in simple conversations.
- Relate information about basic needs and routine activities in basic conversations in routine social situations.
- Recognize words on familiar topics and construct limited meaning from some authentic material dealing with everyday matters.
- Produce sentences to form short loosely organized paragraphs related to survival skills and personal topics using Beginning High structures and forms appropriately.

Students may obtain an ESL Beginning High 3-4 Intensive Noncredit Certificate of Completion upon successful completion of ESLN 3350 and any of the following courses.

Courses Required for the Certificate of Completion in ESL Beginning High 3-4 Intensive

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3350 Beginning High 3-4 Intensive</td>
<td>180</td>
</tr>
<tr>
<td>And any one of the following</td>
<td></td>
</tr>
<tr>
<td>ESLN 3400 Beginning High 4</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3405 Beginning High 4-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3406 Beginning High 4-B</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>270-360</strong></td>
</tr>
</tbody>
</table>

ESL Beginning High Focus Skills Noncredit Certificate

Beginning High skills are emphasized for students who want focused practice in listening, speaking, reading, or writing. These courses in English as a Second Language develop and expand Beginning High English skills.

Learning Outcomes

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

- Use English to speak about basic needs and routine activities in simple conversations.
- Determine comprehension of beginning English level material.
- Communicate basic needs and personal topics in sentence form and organize the sentences into paragraph form.
- Utilize beginning-high basic language structures in speaking and in writing about basic needs and personal topics.

Students may obtain an ESL Beginning High Focus Skills Noncredit ESL Certificate of Completion upon successful completion of any two of the following courses.

Courses Required for the Certificate of Completion in ESL Beginning High Focus Skills

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3346 ESL Listening-Beginning High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3347 ESL Speaking-Beginning High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4347 Conversation-Beginning High</td>
<td>45</td>
</tr>
<tr>
<td>ESLF 3011 English Through Songs</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3348 ESL Reading-Beginning High</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3349 ESL Writing-Beginning High</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>135-180</strong></td>
</tr>
</tbody>
</table>

ESL Computer-Assisted Intermediate Noncredit Certificate

Using ESL language software and online ESL resources, students expand Intermediate level ESL listening, speaking, reading and writing skills through group computer-assisted projects. This certificate in English as a Second Language will expand English as a Second Language skills for Intermediate level ESL students.

Learning Outcomes

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

- Demonstrate understanding of essential points in spoken English on familiar topics and topics of interest enough to be able to participate in extended conversations.
- Demonstrate ability to communicate beyond survival needs and be able to engage in familiar and unfamiliar conversational subjects.
- Interpret simplified readings on familiar subjects, identify the main ideas and draw conclusions.
- Relate a variety of common topics in written English demonstrating control of basic grammatical structures and forms.
- Use appropriate computer technology to access and use commercial software, teacher-authored software, and/or CD-ROM disks.

Students may obtain a Computer-Assisted ESL Intermediate Noncredit ESL Certificate of Completion upon successful completion of any course.

Courses Required for the Certificate of Completion in ESL Computer-Assisted Intermediate

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3006 Computer Assisted ESL-Intermediate</td>
<td>180</td>
</tr>
<tr>
<td>ESLF 4006 Computer Assisted ESL</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 5006 Computer Assisted ESL</td>
<td>45</td>
</tr>
<tr>
<td>ESLF 3821 Introduction to Computers for ESL-Intermediate</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4821 Introduction to Computers for ESL-Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 3829 Computer VESL-High Intermediate</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3005 Writing with a Computer-Intermediate</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>45-180</strong></td>
</tr>
</tbody>
</table>

ESL Intermediate Low 5 Noncredit Certificate

These courses in English as a Second Language develop and expand Beginning High 5 English skills.
Learning Outcomes
Upon completion of this certificate, students will be able to:

- Demonstrate understanding of spoken English in increasingly extended conversations.
- Interpret simple short narratives and descriptive passages on familiar topics using contextual clues to differentiate between fact and opinion.
- Demonstrate ability to write an organized paragraph or message.

Students may obtain a Certificate of Completion in ESL Intermediate Low 5 upon successful completion of any of the following courses.

**Courses Required for the Certificate of Completion in ESL Intermediate Low 5**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3500 Intermediate Low 5</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3505 Intermediate Low 5-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3506 Intermediate Low 5-B</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>90-180</td>
</tr>
</tbody>
</table>

**ESL Intermediate Low 6 Noncredit Certificate**

These courses in English as a Second Language develop and expand Intermediate Low 5 English skills.

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

- Comprehend spoken English containing some unfamiliar words in mostly familiar contexts.
- Demonstrate ability to participate in increasingly extended conversational exchanges about topics beyond survival needs.
- Differentiate fact from opinion in simplified reading material and some authentic material.
- Organize relevant ideas and appropriate details into one or more clearly organized short paragraphs.

Students may obtain a Certificate of Completion in ESL Intermediate Low 6 upon successful completion of any two of the following courses.

**Courses Required for the Certificate of Completion in ESL Intermediate Low 6**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3600 Intermediate Low 6</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3560 Intermediate Low 5-6 Multi-level</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3605 Intermediate Low 6-A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3606 Intermediate Low 6-B</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 4567 Intermediate Low Conversation</td>
<td>45</td>
</tr>
<tr>
<td>ESLF 4569 Speaking Intermediate Low</td>
<td>45</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>90-360</td>
</tr>
</tbody>
</table>

**ESL Intermediate Low 5-6 Intensive Noncredit Certificate**

This is an Intermediate Low accelerated study certificate. These courses in English as a Second Language develop and expand Intermediate Low English skills.

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

- Demonstrate ability to read simplified materials on familiar subjects and have limited success reading authentic materials.
- Compose one or more short paragraphs related to survival skills and personal topics, and complete messages with few errors.

Students may obtain an ESL Intermediate Low 5-6 Intensive Noncredit Certificate of Completion upon successful completion of ESLN 3550 and any of the following courses.

**Courses Required for the Certificate of Completion in ESL Intermediate Low 5-6 Intensive**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3550 Intermediate Low 5-6 Intensive</td>
<td>180</td>
</tr>
</tbody>
</table>

And any one of the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3600 Intermediate Low 6</td>
<td>180</td>
</tr>
<tr>
<td>ESLN 3605 Intermediate Low 6 - A</td>
<td>90</td>
</tr>
<tr>
<td>ESLN 3606 Intermediate Low 6 - B</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>270-360</td>
</tr>
</tbody>
</table>

**ESL Intermediate Low Focus Skills Noncredit Certificate**

Intermediate Low skills are emphasized for students who want focused practice in listening, speaking, reading, or writing. These courses in English as a Second Language develop and expand Intermediate Low English skills.

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

- Comprehend spoken English containing some unfamiliar words in mostly familiar contexts.
- Demonstrate ability to communicate orally in formal and informal settings on familiar topics with increasing ease and accuracy.
- Differentiate fact from opinion in simplified reading material and some authentic material.
- Organize relevant ideas and appropriate details into one or more clearly organized short paragraphs or speeches.

Students may obtain an ESL Intermediate Low Focus Skills Noncredit Certificate of Completion upon successful completion of any two of the following courses.

**Courses Required for the Certificate of Completion in ESL Intermediate Low Focus Skills**

<table>
<thead>
<tr>
<th>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>
<tr>
<td><strong>Total Hours</strong></td>
<td>135-180</td>
</tr>
</tbody>
</table>

**ESL Intermediate 5-8 Multi-level Noncredit Certificate**

This certificate is designed to meet the needs of students with various levels of Intermediate English proficiency. These courses in English as a Second Language develop and expand Intermediate English skills.

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

- Demonstrate understanding of extended conversations with some unfamiliar vocabulary.
• Demonstrate ability to participate in extended conversations beyond survival needs on some unfamiliar topics.
• Identify main ideas in short narrative and descriptive passages on familiar topics.
• Compose short letters and summaries of learned material.

Students may obtain an ESL Intermediate 5-8 Multi-level Noncredit Certificate of Completion upon successful completion of ESLN 3580 and any of the following courses.

Courses Required for the Certificate of Completion in ESL Intermediate 5-8 Multi-level

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3580 Intermediate 5-8 Multi-level</td>
<td>180</td>
</tr>
</tbody>
</table>
And any one of the following
| ESLF 3585 Accelerated Grammar | 180   |
| ESLF 3581 Vocabulary Power    | 180   |
| ESLV 3819 Social Communication|       |
| Total Hours                   | 270-360|

ESL Intermediate High 7 Noncredit Certificate

These courses in English as a Second Language develop and expand ESL Intermediate High 7 English skills.

Learning Outcomes

Upon completion of this certificate, students will be able to:
• Recognize essential information on a familiar subject in a spoken English speech or lecture.
• Use appropriate syntax and formality to participate in extended conversations and interviews.
• Interpret information from authentic material on a variety of common topics.
• Demonstrate ability to produce a practical composition or report.

Students may obtain a Certificate of Completion in ESL Intermediate High 7 upon successful completion of ESLN 3700 and any of the following courses.

Courses Required for the Certificate of Completion in ESL Intermediate High 7

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3700 Intermediate High 7</td>
<td>180</td>
</tr>
</tbody>
</table>
And any one of the following
| ESLF 3001 ESL Women’s Issues | 90    |
| ESLV 3819 Social Communication| 90    |
| ESLF 4787 Intermediate High Conversation | 45    |
| ESLF 3584 Pronunciation - Intermediate | 90    |
| Total Hours                   | 225-270|

ESL Intermediate High 8 Noncredit Certificate

These courses in English as a Second Language develop and expand ESL Intermediate High 8 English skills.

Learning Outcomes

Upon completion of this certificate, students will be able to:
• Demonstrate understanding of authentic reading materials on common topics and interpret the meaning of readings on specialized topics.
• Demonstrate ability to write brief compositions on previously discussed topics and exhibit control of basic grammatical patterns.

Students may obtain a Certificate of Completion in ESL Intermediate High 8 upon successful completion of any of the following courses.

Courses Required for the Certificate of Completion in ESL Intermediate High 8

<table>
<thead>
<tr>
<th>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>Total Hours</td>
<td>90-180</td>
</tr>
</tbody>
</table>

ESL Intermediate High 7-8 Intensive Noncredit Certificate

This is an Intermediate High accelerated study certificate. These courses in English as a Second Language develop and expand Intermediate High English skills.

Learning Outcomes

Upon completion of this certificate, students will be able to:
• Identify essential points of discussion or speeches on topics in special fields of interest.
• Use appropriate syntax to communicate about a variety of topics.
• Interpret authentic reading materials on everyday subjects.

Students may obtain an ESL Intermediate High 7-8 Intensive Noncredit Certificate of Completion upon successful completion of any of the following courses.

Courses Required for the Certificate of Completion in ESL Intermediate High 7-8 Intensive

<table>
<thead>
<tr>
<th>Course</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>
<tr>
<td>Total Hours</td>
<td>90-180</td>
</tr>
</tbody>
</table>

ESL Intermediate High Conversation Noncredit Certificate

This certificate develops speaking skills for Intermediate High ESL students. Students participate in extended conversations on a variety of topics. Students are able to read and discuss authentic material on common topics.

Learning Outcomes

Upon completion of this certificate, students will be able to:
• Engage in extended conversations on a variety of topics using appropriate syntax, formality and control of grammatical forms.
• Recognize and respond to discussions or speeches on topics in special fields of interest.
• Use discussion techniques to talk about written material on everyday subjects.
Upon completion of this certificate, students will be able to:

- Communicate about a variety of topics using appropriate syntax based on authentic written material in special fields of interest. Students can identify essential points of discussions, speeches, or lectures.
- Utilize appropriate formality and grammatical patterns to communicate in extended conversations or interviews.
- Demonstrate understanding of authentic reading materials and interpret meaning on a variety of common topics.
- Organize and compose paragraphs or brief essays and letters, using appropriate syntax.

Students may obtain an ESL Intermediate High Focus Skills Noncredit Certificate upon successful completion of any two of the following courses.

**Courses Required for the Certificate of Completion in ESL Intermediate High Focus Skills Noncredit Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLF 3786 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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>135-180</strong></td>
</tr>
</tbody>
</table>

**ESL Intermediate High Reading Noncredit Certificate**

Intermediate High skills are emphasized for students who want focused practice in listening, speaking, reading and writing. These courses in English as a Second Language develop and expand Intermediate High English skills.

**Learning Outcomes**

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

- Effectively communicate with co-workers and supervisors on-the-job.
- Identify and discuss key points in discussions, speeches, or lectures.
- Organize and compose paragraphs or brief essays and letters, using appropriate syntax.
- Demonstrate understanding of authentic reading materials on common topics and interpret the meaning of readings on specialized topics.
- Interpret, evaluate and criticize written and spoken materials.
- Recognize and discuss implicit information and inferences.

Students may obtain an ESL Intermediate High Reading Noncredit Certificate upon successful completion of any of the following courses.

**Courses Required for the Certificate of Completion in ESL Intermediate High Reading Noncredit Certificate**

<table>
<thead>
<tr>
<th>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</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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>90-180</strong></td>
</tr>
</tbody>
</table>

**ESL Advanced Low 9 Noncredit Certificate**

These courses in English as a Second Language develop and expand ESL Advanced Low 9 English skills.

**Learning Outcomes**

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

- Engage in casual and extended conversation about a variety of topics with increasing fluency and control of complex grammatical patterns.
- Demonstrate comprehension of authentic materials on abstract topics in familiar contexts as well as descriptions and narrations of factual material.
- Demonstrate ability to write compositions on familiar material using appropriate structures and forms.

Students may obtain a Certificate of Completion in ESL Advanced Low 9 upon successful completion of ESLN 3900 and any of the following courses.

**Courses Required for the Certificate of Completion in ESL Advanced Low 9**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLN 3900 Advanced Low 9</td>
<td>180</td>
</tr>
<tr>
<td><strong>And any one of the following</strong></td>
<td></td>
</tr>
<tr>
<td>ESLA 3012 Test of English as a Foreign Language (TOEFL)</td>
<td>25</td>
</tr>
<tr>
<td>ESLF 3790 Telling Stories for ESL Students</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3791 ESL Through Story-Based Video and TV</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>205-270</strong></td>
</tr>
</tbody>
</table>

**Vocational ESL Programs**

**ESL/ABE for Automotive Technology Noncredit Certificate**

This is an ESL/ABE certificate. These courses in English as a Second Language develop and expand intermediate English skills.

**Learning Outcomes**

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

- Demonstrate understanding of automotive terminology, instructions, and specifications.
- Identify and demonstrate safe practices in the Automotive Program.
- Identify and discuss the multicultural nature of the U.S workplace.
- Effectively communicate with co-workers and supervisors on-the-job.
Students may obtain a Certificate of Completion in ESL/ABE for Automotive Technology upon successful completion of ESLV 3813 and any of the following courses.

Courses Required for the Certificate of Completion in ESL/ABE for Automotive Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3813 ESL/ABE for Automotive Technology</td>
<td>90</td>
</tr>
<tr>
<td>And any one of the following</td>
<td></td>
</tr>
<tr>
<td>ESLV 3800 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>
<tr>
<td>Total Hours</td>
<td>112.5-180</td>
</tr>
</tbody>
</table>

ESL Beginning Workplace Skills Noncredit Certificate

This is an ESL Beginning Workplace Skills certificate. Students further develop and expand their knowledge of beginning English skills.

Learning Outcomes

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

- Demonstrate ability to follow basic oral and written instructions to complete simple assignments and exercises.
- Demonstrate ability to type and to proofread original or adapted ESL level-appropriate personal business letter.
- Demonstrate ability to read, write, and pronounce vocabulary involved in the use of fractions, decimals, percents and measurement operations.
- Use appropriate English vocabulary, sentence structure, and mechanics to complete online job applications and to compose online resumes.

Students may obtain a Certificate of Completion in ESL Beginning Workplace Skills upon successful completion of any two of the following courses.

Courses Required for the Certificate of Completion in ESL Beginning Workplace Skills

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLB 3822 Keyboarding for ESL Students</td>
<td>180</td>
</tr>
<tr>
<td>ESLB 4822 Keyboarding for ESL Students</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3003 ESL Math</td>
<td>90</td>
</tr>
<tr>
<td>ESLF 3020 ESL Skills Computer Lab</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4823 Online Job Search Skills for ESL</td>
<td>45</td>
</tr>
<tr>
<td>Total Hours</td>
<td>135-270</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 health.
- 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</td>
<td>105</td>
</tr>
<tr>
<td>ESLV 3843 Healthcare Communication II</td>
<td>105</td>
</tr>
<tr>
<td>ESLV 3844 Healthcare Communication III</td>
<td>105</td>
</tr>
<tr>
<td>Total Hours</td>
<td>105</td>
</tr>
</tbody>
</table>

Beginning Low VESL Communication Noncredit Certificate

This is a Beginning Low Vocational ESL certificate. These courses in English as a Second Language will provide language skills for students with little or no English language skills.

Learning Outcomes

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

- Demonstrate basic understanding of health and safety in the workplace.
- Recognize basic employee rights in the U.S. workplace.
- Effectively communicate with co-workers and supervisors on-the-job.

Students may obtain a Certificate of Completion in Beginning Low VESL Communication upon successful completion of any of the following courses.

Courses Required for the Certificate of Completion in Beginning Low VESL for Communication

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>Total Hours</td>
<td>90-180</td>
</tr>
</tbody>
</table>

Beginning Low VESL for Housekeeping Workers Noncredit Certificate

This is a Beginning Low Vocational ESL certificate. These courses in English as a Second Language will provide language skills for students with little or no English language skills.

Learning Outcomes

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

- Describe housekeeping products and methods.
- Communicate effectively in a job interview and about housekeeping work.
- Explain health and safety procedures as they apply to housekeeping work.
- Understand basic employer/employee relations such as elder care issues.

Students may obtain a Certificate of Completion in Beginning Low VESL for Housekeeping Workers upon successful completion of either ESLV 3806 or ESLV 3807 and any of the following courses.
### Courses Required for the Certificate of Completion in Beginning Low VESL for Housekeeping Workers

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3806 EFL for Housekeeping</td>
<td>88-105</td>
</tr>
<tr>
<td>or ESLV 3807 Housekeeping EFL</td>
<td></td>
</tr>
<tr>
<td>And any one of the following</td>
<td></td>
</tr>
<tr>
<td>ESLV 3841 Beginning VESL Communication</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 4841 Beginning-Low VESL Communication A</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4842 Beginning-Low VESL Communication B</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3836 VESL for Customer Service</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>178-285</strong></td>
</tr>
</tbody>
</table>

### Beginning VESL for Construction Workers

**Noncredit Certificate**

This is a Beginning Vocational ESL certificate. These courses in English as a Second Language develop and expand beginning English skills.

**Learning Outcomes**

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

- Describe past work experience, education and skills related to construction both orally and on paper.
- Respond appropriately to basic orders, requests and directions and participate in basic conversations with co-workers.
- Identify and correctly pronounce the names of basic tools and equipment.
- Demonstrate general safety practices.

Students may obtain a Certificate of Completion in ESL Beginning VESL for Construction Workers upon successful completion of ESLV 3832 and any of the following courses.

**Courses Required for the Certificate of Completion in Beginning VESL for Construction Workers**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3832 Communication Skills for Construction Workers</td>
<td>90</td>
</tr>
<tr>
<td>And any one of the following</td>
<td></td>
</tr>
<tr>
<td>ESLV 3800 Communication Skills for the Workplace</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>180</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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>112.5-270</strong></td>
</tr>
</tbody>
</table>

### Beginning VESL for Janitorial Workers

**Noncredit Certificate**

This is a Beginning Vocational ESL certificate. These courses in English as a Second Language develop and expand beginning English skills.

**Learning Outcomes**

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

- Identify and pronounce names of basic tools and equipment in the hospitality industry.
- Demonstrate understanding of general safety practices.
- Effectively communicate with co-workers and supervisors on-the-job.

Students may obtain a Certificate of Completion in Beginning VESL for Janitorial Workers upon successful completion of ESLV 3816 or ESLV 4816 and any of the following courses.

**Courses Required for the Certificate of Completion in Beginning VESL for Janitorial Workers**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3816 Communication Skills for Janitorial Workers</td>
<td>90-180</td>
</tr>
<tr>
<td>or ESLV 4816 Communication Skills for Janitorial Workers</td>
<td></td>
</tr>
<tr>
<td>And any one of the following</td>
<td></td>
</tr>
<tr>
<td>ESLV 3800 Communication Skills</td>
<td>180</td>
</tr>
<tr>
<td>for the Workplace</td>
<td></td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills</td>
<td>90</td>
</tr>
<tr>
<td>for the Workplace</td>
<td></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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>112.5-360</strong></td>
</tr>
</tbody>
</table>

### Intermediate VESL for Biotech Workers

**Noncredit Certificate**

This certificate develops and expands ESL Intermediate level verbal communication skills for jobs as biotech workers. These courses in English as a Second Language develop and expand intermediate English skills.

**Learning Outcomes**

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

- Apply basic terminology of scientific language and scientific method to laboratory procedures.
- Use appropriate terminology to discuss basic principles of bioethics.
Upon completion of this certificate, students will be able to:

- Communicate effectively with coworkers and supervisors with respect to work tasks.
- Analyze a variety of work and social situations on the job and respond appropriately.

Students may obtain an Intermediate VESL for Biotech Workers Noncredit Certificate of Completion upon successful completion of ESLV 3840 and any of the following courses.

**Courses Required for the Certificate of Completion in Intermediate VESL for Biotech Workers**

<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 3800 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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>112.5-180</strong></td>
</tr>
</tbody>
</table>

**Intermediate VESL for Child Development Workers Noncredit Certificate**

This certificate develops and expands ESL Intermediate level verbal communication skills for jobs as child development workers. These courses in English as a Second Language develop and expand intermediate English skills.

**Learning Outcomes**

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

- Practice and apply oral skills to present children's books, fingerplays, songs and nursery rhymes aloud.
- Demonstrate understanding of terms in the child development/childcare fields.
- Apply understanding of Child Development (CDEV) terms to describe children's interactions and assess individual children in a classroom setting.

Students may obtain an Intermediate VESL for Child Development Workers Noncredit Certificate of Completion upon successful completion of any course.

**Courses Required for the Certificate of Completion in Intermediate VESL for Child Development Workers**

<table>
<thead>
<tr>
<th>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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>45-90</strong></td>
</tr>
</tbody>
</table>

**Intermediate VESL for Clerical Workers Noncredit Certificate**

This certificate develops and expands ESL Intermediate level verbal communication skills for jobs as clerical workers. These courses in English as a Second Language develop and expand intermediate English skills.

**Learning Outcomes**

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

- Use basic telephone knowledge, common phrases and appropriate etiquette in answering/making office phone calls and taking phone messages.
- Apply job search skills to looking for clerical work.

Students may obtain an Intermediate VESL for Clerical Workers Noncredit Certificate of Completion upon successful completion of ESLV 3804 and any of the following courses.

**Courses Required for the Certificate of Completion in Intermediate VESL for Clerical Workers**

<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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>270</strong></td>
</tr>
</tbody>
</table>

**Intermediate VESL for Construction Workers Noncredit Certificate**

This certificate develops and expands ESL Intermediate level verbal communication skills for jobs in the construction trades.

**Learning Outcomes**

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

- Demonstrate understanding of basic construction terms and tasks in listening, speaking, reading and writing activities.
- Demonstrate general safety practices through listening, speaking and reading, activities.
- Clarify basic construction tasks through asking and answering appropriate questions related to tasks.

Students may obtain an Intermediate VESL for Construction Workers Noncredit Certificate upon successful completion of ESLV 3831 and any of the following courses.

**Courses Required for the Certificate of Completion in Intermediate VESL for Construction Workers**

<table>
<thead>
<tr>
<th>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 4831 Comm. Skills for Construction Workers A</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 5822 Basic Workplace Communication</td>
<td>22.5</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>112.5-180</strong></td>
</tr>
</tbody>
</table>

**Intermediate VESL for Health Workers Noncredit Certificate**

This certificate develops and expands ESL Intermediate level verbal communication skills for jobs as health workers. These courses in English as a Second Language develop and expand intermediate English skills.

**Learning Outcomes**

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

- Demonstrate general knowledge of health care settings, terminology and staff.
- Communicate effectively with workers in a medical setting, including use of small talk and idioms.
- Recognize and demonstrate an awareness of cultural and gender diversity in a medical environment.
Students may obtain an Intermediate VESL for Health Workers Non-Credit Certificate upon successful completion of any of the following courses.

Courses Required for the Certificate of Completion in Intermediate VESL for Health Workers

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3830 VESL for Health Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3830 Comm. Skills for Health Workers</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 4830 Comm. Skills for Health Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4830 Comm. Skills for Health Workers</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4839 Computer VESL-Health Workers</td>
<td>22.5</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>22.5-180</strong></td>
</tr>
</tbody>
</table>

Intermediate VESL for Hospitality Workers Noncredit Certificate

This is an Intermediate VESL certificate. These courses in English as a Second Language develop and expand intermediate English skills.

Learning Outcomes

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

• Identify and demonstrate health and safety practices.

• Effectively communicate with co-workers and supervisors on the job.

Students may obtain a Certificate of Completion in Intermediate VESL for Hospitality Workers upon successful completion of any two of the following courses.

Courses Required for the Certificate of Completion in Intermediate VESL for Hospitality Workers

<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 3800 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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>67.5-180</strong></td>
</tr>
</tbody>
</table>

Intermediate VESL for Job Searching Noncredit Certificate

This is an Intermediate VESL certificate. These courses in English as a Second Language develop and expand intermediate English skills.

Learning Outcomes

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

• Demonstrate ability to describe one's training, education, experience, skills, and interests in an interview.

• Interpret job want-ads, announcements, and descriptions.

• Compare some cultural values and attitudes in the United States towards work with those in the student's native country.

Students may obtain a Certificate of Completion in Intermediate VESL Skills for Job Searching upon successful completion of ESLV 3823 and any of the following courses.

Courses Required for the Certificate of Completion in Intermediate VESL Skills for Job Searching

<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>And any one of the following</td>
<td></td>
</tr>
<tr>
<td>ESLV 3800 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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>112.5-180</strong></td>
</tr>
</tbody>
</table>

Intermediate VESL for Printing Workers Noncredit Certificate

This certificate develops and expands ESL Intermediate level verbal communication skills for jobs as printing workers. These courses in English as a Second Language develop and expand intermediate English skills.

Learning Outcomes

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

• Describe and explain printing processes, methods of print production and safety warnings.

• Demonstrate professional service practices when assisting customers.

• Demonstrate general safety practices.

Students may obtain a Certificate of Completion in Intermediate VESL for Printing Workers upon successful completion of ESLV 3839 and any of the following courses.

Courses Required for the Certificate of Completion in Intermediate VESL for Printing Workers

<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>And any one of the following</td>
<td></td>
</tr>
<tr>
<td>ESLV 3800 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>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>112.5-180</strong></td>
</tr>
</tbody>
</table>

Intermediate VESL for Transit Operators Noncredit Certificate

This certificate develops and expands ESL Intermediate level verbal communication skills for jobs as transit operators. These courses in English as a Second Language develop and expand intermediate English skills.

Learning Outcomes

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

• Demonstrate ability to communicate with passengers and supervisors.

• Demonstrate ability to use the phone and comprehend radio dispatches.

• Describe basic parts of mass transit vehicles and engines.

• Identify safety issues in public transportation.

Students may obtain an Intermediate VESL for Transit Operators Noncredit Certificate of Completion upon successful completion of any of the following courses.
### 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)**

Advisement: 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)**

Advisement: Completion of ESLN 3400 (Beginning Low 4)

Intermediate noncredit 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)**

Advisement: 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, e-mail, 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)**

Advisement: 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)**

Advisement: 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)**

Advisement: 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.

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### Courses Required for the Certificate of Completion in Intermediate VESL for Transit Operators

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3837 Comm. Skills for New Transit Operators</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3838 Comm. Skills for Transit Operators</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 4837 Comm. Skills for New Transit Operators</td>
<td>45</td>
</tr>
<tr>
<td>ESLV 4838 Comm. Skills for Transit Operators</td>
<td>45</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>45-90</strong></td>
</tr>
</tbody>
</table>

### Vocational ESL Office Training Noncredit Certificate

This certificate of completion 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).

#### Learning Outcomes

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

- Demonstrate understanding of basic office technology and procedures.
- Respond appropriately to basic orders, requests, and directions used in clerical jobs.
- Demonstrate understanding of general office work culture through critical thinking and problem-solving activities.
- Apply job search skills for finding clerical work.

#### Admission Requirements

Completion of Intermediate Low 5 (ESLN 3500 or 3505); typing (25 wpm or with permission of instructor).

#### 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 nwp; 5% error rate). Length of Program: 810 hours

### Courses Required for the Certificate of Completion in Vocational ESL Office Training

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLV 3804 VESL for Clerical Workers</td>
<td>180</td>
</tr>
<tr>
<td>ESLV 3801 Communication Skills for the Workplace</td>
<td>180</td>
</tr>
<tr>
<td>OR ESLV 3819 Social Communication</td>
<td>180</td>
</tr>
<tr>
<td>AND ESLV 3829 Computer VESL-High Int</td>
<td>180</td>
</tr>
<tr>
<td>BOSS 5503 Keyboarding-All Levels</td>
<td>180</td>
</tr>
<tr>
<td>OR BOSS 5502 Clerical Keyboarding</td>
<td>180</td>
</tr>
<tr>
<td>OR BOSS 3822 Keyboarding for ESL Students</td>
<td>180</td>
</tr>
<tr>
<td>BOSS 5507 Data Entry/10-Key</td>
<td>90</td>
</tr>
<tr>
<td>OR BOSS 2500 Bus. Math with Spreadsheets</td>
<td>90</td>
</tr>
<tr>
<td>ESLV 3821 Intro to Computers for ESL-Intermediate</td>
<td>45</td>
</tr>
<tr>
<td>OR COMP 9857 MS Office Business Appl. with Simulated Projects</td>
<td>90</td>
</tr>
<tr>
<td>Electives (Selected from below)</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>810</strong></td>
</tr>
</tbody>
</table>
ESL, Citizenship

ESLC 3030. ESL/Citizenship Literacy (90 hrs)
Advise: Completion of ESLN 3010 (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)
Advise: Completion of ESLN 3000 (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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: Completion of ESLN 3300 (Beginning Low 1)
Beginning level ESL listening, speaking, reading and writing skills are expanded and developed through 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)
Advise: Completion of ESLN 3200 (Beginning High 2)
Beginning level ESL listening, speaking, reading and writing skills expanded and developed through group computer projects. Aural development, oral readiness and reading readiness stressed. Computer terminology and basic computer skills.

ESLF 3011. English Through Song Lyrics (90 hrs)
Advise: 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)
Advise: 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)
Advise: 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)

Advised: 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)

Advised: 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)

Advised: 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)

Advised: 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)

Advised: 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)

Advised: 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 3566. Listening - Intermediate Low (90 hrs)

Advised: Completion of ESLN 3400 (Beginning High 4)
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 3567. Speaking - Intermediate Low (90 hrs)

Advised: Completion of ESLN 3400 (High Beginning 4)
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 3568. Reading - Intermediate Low (90 hrs)

Advised: Completion of ESLN 3400 (High Beginning 4)
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 3569. Writing - Intermediate Low (90 hrs)

Advised: 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 3581. Vocabulary Power (180 hrs)

Advised: Completion of ESLN 3400 (Beginning Low 4)
Focus on building vocabulary skills in English through a variety of highly motivating and communicative activities to improve oral and written fluency in English at an intermediate level.

ESLF 3584. Pronunciation - Intermediate (90 hrs)

Advised: 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 3585. Accelerated Grammar (180 hrs)

Advised: Completion of ESLN 3400 (Beginning High 4)
Practice in writing all types of grammatical structures and in using all the tenses and forms of English at the Intermediate level.

ESLF 3786. Listening - Intermediate High (90 hrs)

Advised: Completion of ESLN 3700 (Intermediate High 7)
Intermediate High listening focus course. Learners will comprehend 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 3787. Speaking - Intermediate High (90 hrs)

Advised: 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 3788. Reading - Intermediate High (90 hrs)

Advised: 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 3789. Writing - Intermediate High (90 hrs)

Advised: 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 3790. Telling Stories for ESL Students (90 hrs)
*Advisement: 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)
*Advisement: 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. Intermediate CALL (90 hrs)
*Advisement: Completion of ESLN 3400 or Equivalent Language Level*
Intermediate level English as a Second Language (ESL) listening, speaking, reading and writing skills are expanded and further developed in an interactive computer lab. Learners are introduced to basic computer terminology and English language learning software. Students participate in short in-class group projects.

ESLF 4007. Beginning Low CALL (45 hrs)
*Advisement: Completion of ESLN 3010*
Low beginning level English as a Second Language (ESL) listening, speaking, reading and writing skills are developed through a limited number of computer-assisted ESL language learning activities in an ESL computer lab. Computer vocabulary and activities are the focus of beginning ESL listening and speaking conversational skills.

ESLF 4008. Beginning High CALL (45 hrs)
*Advisement: Completion of ESLN 3200 (Beginning Low 2)*
Beginning high level English as a Second Language (ESL) listening, speaking, reading and writing skills are further developed through ESL language learning computer software in an ESL computer lab. Group projects will encourage listening and speaking skills.

ESLF 4127. Beginning Low Conversation (45 hrs)
*Advisement: 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)
*Advisement: 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)
*Advisement: 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 4569. Writing – Intermediate Low (45 hrs)
*Advisement: 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 4787. Intermediate High Conversation (45 hrs)
*Advisement: Completion of ESLN 3600 (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)
*Advisement: 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.

**ESL, Noncredit General**

ESLF 3010. ESL Literacy-A (180 hrs)
*Advisement: 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)
*Advisement: 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)
*Advisement: 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)
*Advisement: 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)
*Advisement: 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)
*Advisement: 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)
*Advisement: 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)
*Advisement: 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.

ESLN 3145. Beginning 1–4 Multi-level - A (90 hrs)

*Advised: 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)

*Advised: 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)

*Advised: 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)

*Advised: 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)

*Advised: 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)

*Advised: 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)

*Advised: Completion of ESLN 3200 or Equivalent Language Ability.*

Beginning high 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)

*Advised: 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)

*Advised: 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)

*Advised: 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)

*Advised: Completion of ESLN 3200 (Beginning High 2)*

Beginning High 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. Read simplified material on familiar topics and generate sentences to form short, loosely organized paragraphs related to survival skills and personal topics.

ESLN 3400. Beginning High 4 (180 hrs)

*Advised: 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)

*Advised: 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)

*Advised: 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)

*Advised: 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)

*Advised: 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)
Advised: 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)
Advised: Completion of ESLN 3400 (Beginning High 4)
Intermediate Low accelerated course. Comprehend spoken and written English containing some unfamiliar words. Participate in conversations 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)
Advised: 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)
Advised: Completion of ESLN 3400 (Beginning High 4)
Intermediate noncredit 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: Completion of ESLN 3600 (Intermediate Low 6)
Intermediate-High ESL students develop listening skills in order to understand extended discussions or lectures, and express themselves with increasing fluency and grammatical accuracy. Students read authentic materials and write paragraphs or brief essays.

ESLN 3785. Intermediate High 7-8 Intensive - A (90 hrs)
Advised: 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 3786. Intermediate High 7-8 Intensive - B (90 hrs)
Advised: 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)
Advised: 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)
Advised: 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)
Advised: 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)
**Advise: 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 3806. ESL for Housekeeping (105 hrs)
**Advise: Literate in native language**
For those interested in entry-level positions in housekeeping. English language acquisition related to housekeeping such as identification and use of cleaning products and electrical appliances, health and safety procedures, crime prevention, the social security system, transportation, record keeping, employer/employee relations, elder abuse, and job search preparation.

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)**
Conversation 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 résumé 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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: Completion of ESLN 3500 (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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: 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)
*Advis: 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 care 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)
*Advis: 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)
**Advise: Health care background, completion of ESLN 3600 (Intermediate Low 6); Basic computer literacy (ESLB 3821)**

Described 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)
**Advise: 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)
**Advise: 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 listings. They will describe their education, skills and experience for 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**

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**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 Floristry 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 qualify for 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 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.

Approval of Instruction. The curriculum in Environmental Horticulture is approved by the following organizations: the Association of Landscape Architects; California Arborists Association; California Association of Nurserymen (Central, Peninsula, and Redwood Chapters); California Fertilizer Association; California Seed Trade Association; Golf Course Superintendents Association; California Landscape Contractors Association; Park Employees Union, Local No. 311, AFL-CIO; San Francisco Professional Gardeners Association; Agricultural Chemicals Association; Bedding Plant Association; California Anti-Litter League; California Cut Flower Growers Association; California Horticultural Society; and the State Division of Highways. The curriculum in Floristry is offered in cooperation with the San Francisco Bay Area Florists Association and California State Florists Association.

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>O H 50 Intro to Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 56 Horticulture Machines</td>
<td>3</td>
</tr>
</tbody>
</table>

O H 76 Fall & Winter Plant Ident.  .......................... 4
Additional graduation requirements

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
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</table>

Additional graduation requirements

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
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</tbody>
</table>

Additional graduation requirements

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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</td>
<td></td>
</tr>
<tr>
<td>or O H 71A Landscape Construction</td>
<td>3 or 4</td>
</tr>
</tbody>
</table>

Additional graduation requirements

Total Units ............................................. 42 – 43

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>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 Public Speak</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional graduation requirements

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
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</table>

Environmental Horticulture and Floristry  275
O H 77 Spring and Summer Plant Ident ................. 4
Additional graduation requirements

Third Semester
O H 53B Landscape Horticulture ...................... 3
O H 70A Prin of Landscaping Design ................. 3
O H 71A Prin of Landscaping Construct .............. 4
Additional graduation requirements

Fourth Semester
O H 60 Bus Practices in Environ Horticulture ........ 3
O H 70B Adv Landscape Design ....................... 3
O H 71B Prin of Landscaping Construct .............. 4
O H 97 Wk Experience .................................. 3
Additional graduation requirements
Total Units ............................................. 49
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 supervisors, weed-seed analysts, farm and garden supervisors, horticultural inspectors, and plant propagators.

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>
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</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
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<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>
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<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>O H 63 Soils</td>
<td>3</td>
</tr>
<tr>
<td>O H 75 Pest Control</td>
<td></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 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></td>
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<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>O H 57B 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>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>45</td>
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</tbody>
</table>

Certificate Curricula

The program of study for the Certificate of Achievement in Environmental Horticulture is designed to give students both broad and specialized training for entry level employment or to add to their capabilities in one of the following fields: greenhouse operation, landscape maintenance, nursery and garden-center operations, landscape design or landscape construction.

Admission. Enrollment is open to all interested students.

Employment. A number of entry-level positions are open to those who complete training in any of the preceding fields. For example, those who complete the requirements in landscape horticulture may work as self-employed maintenance gardeners or take State and City civil service examinations for the position of maintenance gardener. Those who complete the requirements in greenhouse operation or nursery and garden-center operation are qualified for employment in sales work and in various kinds of horticultural production.

Requirements for the Certificate of Achievement. Students may obtain the Certificate of Achievement in Environmental Horticulture in one or more areas of specialization: Landscape Maintenance, Nursery Operations, Commercial Cut-Flower & Greenhouse Production, Landscape Design and Landscape Construction. This is accomplished by completing each of the following courses with a final grade of C or higher:

Courses Required for the Certificate of Achievement in Environmental Horticulture

Core Coursework

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 50 Intro to Environmental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>O H 56 Horticulture Machines</td>
<td>3</td>
</tr>
<tr>
<td>O H 60 Bus Practices in Environ 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 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>

Core Coursework Subtotal: 26

To earn the Certificate of Achievement, select one of the areas of specialization:

Landscaping Maintenance Certificate

<table>
<thead>
<tr>
<th>Core Coursework</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 53A and 53B Landscape Horticulture</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Units: 32

Nursery and Garden-Center Operation Certificate

<table>
<thead>
<tr>
<th>Core Coursework</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></td>
</tr>
</tbody>
</table>

Total Units: 32

Commercial Cut-Flower Greenhouse Production Certificate

<table>
<thead>
<tr>
<th>Core Coursework</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>O H 58 Greenhouse Operations</td>
<td>6</td>
</tr>
<tr>
<td>and O H 65 Plant Propagation</td>
<td></td>
</tr>
</tbody>
</table>

Total Unit: 32
Landscape Design Certificate

Core Coursework ........................................... 26
O H 70A Principles of Landscaping Design
and O H 70B Adv Prin of Landscape Design ........... 6
Total Units .................................................. 32

Landscape Construction Certificate

Core Coursework ........................................... 26
O H 71A and 71B Landscape Construction .............. 8
Total Units .................................................. 34

Floristry

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>O H 98A Basic Business Arithmetic</td>
<td>2</td>
</tr>
<tr>
<td>R F 80A Flower Shop Proc &amp; Basic Design</td>
<td>5</td>
</tr>
<tr>
<td>R F 81 Flower and Foliage Identification</td>
<td>2</td>
</tr>
<tr>
<td>R F 85 Introduction to Flower Arranging</td>
<td>2</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
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<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>ACCT 10 (or equivalent) Intro to Account</td>
<td>4</td>
</tr>
<tr>
<td>R F 80B Intermediate Floral Design</td>
<td>5</td>
</tr>
<tr>
<td>R F 82 Interior Plant Identification</td>
<td>2</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>R F 80C Advanced Floral Designs</td>
<td>3</td>
</tr>
<tr>
<td>R F 86 Oriental Style Floral Arranging</td>
<td>1.5</td>
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<tr>
<td>R F 98 Work Experience</td>
<td>3</td>
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<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>MRKT 140 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>R F 84 Flower-Shop Oper</td>
<td>3</td>
</tr>
<tr>
<td>R F 98 Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>38.5</td>
</tr>
</tbody>
</table>

Recommended electives: ART 130; BSEN 74, 76; CLW 18; MRKT 122, 170; SMBS 135; PSYC 26

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 hydroseed. 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: Completion/concurrent enrollment in O H 50
Field and shop practice in the operation of horticultural equipment such as the sod cutter, trencher, aerator, chipper/shredder, and chainsaw. 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 Tecumsa. CSU

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 hydroseed. 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: Completion/concurrent enrollment in O H 50
Field and shop practice in the operation of horticultural equipment such as the sod cutter, trencher, aerator, chipper/shredder, and chainsaw. 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 Tecumsa. CSU
O H 57A. Wholesale Nursery Operations (3)
Lec-2, lab-3, field trips
Advice: O H 50 or 65, and O H 76 or 77, or significant field experience
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
Advice: O H 50, 55, 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
Advice: 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 greenhouse 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
Advice: 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 diseases, drainage and irrigation. Managing turf, landscape and container soils. CSU

O H 65. Plant Propagation (3)
Lec-2, lab-3, field trips
Advice: Completion concurrent enrollment in O H 50 or demonstration of exit skills
Principles and practices of reproducing plants as commercially practiced 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
Advice: 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 establishing hydrozones, providing drainage, calculating pressure and flow requirements, system design and installation, equipment and fittings, automatic 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
Advice: O H 70A
Principles of advanced landscape design, especially as applied to residential properties. CSU

O H 71A. Landscape Construction (4)
Lec-2, lab-6, field trips
Principles of landscape construction, especially as applied to construction 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, irrigation, fountains, pumps, landscape surveying, and estimating. CSU

O H 75. Pest Control (3)
Lec-3, field trips
Advice: 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 available. 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 anatomy and terminology used in the taxonomic classification of plants. Emphasis on cultural requirements, habits of growth and landscape use of plants. CSU/UC
Environmental Horticulture and Floristry

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 practical
application and current issues in horticulture. CSU

O H 97. Work Experience (1-4)
Conf-1, work-3 per unit, field trips
Prereq.: completion of 6 units in environmental horticulture; Approval of OH Work Experience Coordinator
Repeat: Maximum credit: 12 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 résumés. Interview and career development skills discussed. CSU

O H 101. Garden Practices (3)
Lec-3, field trips P/NP available
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
Advise: O H 50, 65, 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, gesneriads, 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 P/NP available
Advise: O H 50
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
Prereq.: 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
Prereq.: 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
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 salesman-ship, types of shops, merchandising, buying, advertising, delivery, and personnel. CSU

R F 85. Introduction to Flower Arranging (2)
Lab-3, field trips.
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
Students provide own materials.
Overview: Understanding and appreciation of oriental style flower arrangement, known generally as Ikebana. Emphasis on principles of design, 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
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)
Prereq.: Approval of RF Work Experience Coordinator
Repeat: Maximum credit: 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/departments/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 of the Fashion Merchandising Major.

Learning Outcomes
Upon completion of the program, the student will be able to:
- Apply technical skills used in fashion show production, styling, visual merchandising, and fashion coordination.
- Compare and contrast the economic, sociological, technological, psychological, and political factors affecting fashion change and adoption.
- Communicate effectively using standard fashion industry vocabulary.
- Identify the criteria for entry level employment in the fashion merchandising industry, create an entrepreneurial business, or be successful in the next level of fashion coursework, should they choose to continue.

Courses Required for the Major in Fashion Merchandising
Course
BSMA 66 Business Mathematics
or BSMA 68 Mathematics of Business
or MATH E1 Basic Mathematics
or MATH E3 Basic Mathematics
FASH 22 Textile Analysis
or FASH 57 Fabric Glossary
FASH 42 Introduction to Fashion Industry
FASH 44 Fashion Retail Buying
FASH 46 Fashion Merchandising
FASH 47 Fashion Coordination
FASH 48 Fashion Show Production
FASH 49 Visual Merchandising
FASH 50 Runway: The Business of Modeling
or FASH 54B Advanced Fashion Styling
or FASH 45A Image Consulting
FASH 53 Fashion Forecasting
FASH 54A Fashion Styling
FASH 56 Fashion Writing and Publicity
FASH 60 Field Work in Fashion Merchandising
FASH 61 Work Experience in the Fashion Industry
or FASH 62 Work Experience in Image Consulting
Total Units

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.

**Learning Outcomes**

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

- Apply the principles and elements of fashion design when creating their own designs.
- Effectively communicate clearly and concisely in the fashion industry, using visual, oral and written methods.
- Execute the technical skills of pattern and garment development.
- Identify and properly utilize the appropriate raw materials for their fashion products.
- Relate the history and social context of fashion to the current fashion zeitgeist.
- Identify criteria for entry level employment in the fashion industry, create an entrepreneurial fashion business, or be successful in the next level of fashion coursework, should they choose to continue.

**Courses Required for the Major in Fashion Design**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 15A Apparel Construction I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 21 Fashion Careers</td>
<td>1</td>
</tr>
<tr>
<td>FASH 22 Textile Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FASH 27 Fashion Draping</td>
<td>3</td>
</tr>
<tr>
<td>FASH 35A Fashion Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 15B Apparel Construction II</td>
<td>3</td>
</tr>
<tr>
<td>FASH 23 Fashion History</td>
<td>3</td>
</tr>
<tr>
<td>FASH 26 Flat Pattern Design I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 36 Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>FASH 15C Apparel Construction III</td>
<td>3</td>
</tr>
<tr>
<td>FASH 35B Fashion Illustration II</td>
<td>3</td>
</tr>
<tr>
<td>FASH 55 Icons of Contemporary Design</td>
<td>3</td>
</tr>
<tr>
<td>FASH 67 Computerized Pattern Development: Gerber</td>
<td>3</td>
</tr>
<tr>
<td>FASH 33 Design Portfolio in Fashion</td>
<td>3</td>
</tr>
<tr>
<td>FASH 37 Flat Pattern Design II</td>
<td>3</td>
</tr>
<tr>
<td>FASH 51 Creating a Garment Business</td>
<td>3</td>
</tr>
<tr>
<td>FASH 63 Fashion Design and Production Internship</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 112 Digital Illustration for Fashion</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>51</td>
</tr>
</tbody>
</table>

**Recommended Electives:** ART 125A, 125B, 132A, 132B; FASH 29, 34, 42, 46, 53, 54, 66; GRPH 25, 98A, 100A

**Fashion Design Certificate**

Students may receive a Certificate of Achievement in Fashion Design. The curriculum in Fashion Design, a two-year course of study (51 units) 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.

**Learning Outcomes**

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

- Apply the principles and elements of fashion design when creating their own designs.
- Effectively communicate clearly and concisely in the fashion industry, using visual, oral and written methods.
- Execute the technical skills of pattern and garment development.
- Identify and properly utilize the appropriate raw materials for their fashion products.
- Relate the history and social context of fashion to the current fashion zeitgeist.
- Identify the criteria for entry level employment in the fashion industry, create an entrepreneurial fashion business, or be successful in the next level of fashion coursework, should they choose to continue.

**Courses Required for the Certificate of Achievement in Fashion Design**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 15A Apparel Construction I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 21 Fashion Careers</td>
<td>1</td>
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<tr>
<td>FASH 22 Textile Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FASH 27 Fashion Draping</td>
<td>3</td>
</tr>
<tr>
<td>FASH 35A Fashion Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 15B Apparel Construction II</td>
<td>3</td>
</tr>
<tr>
<td>FASH 23 Fashion History</td>
<td>3</td>
</tr>
<tr>
<td>FASH 26 Flat Pattern Design I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 36 Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>FASH 15C Apparel Construction III</td>
<td>3</td>
</tr>
<tr>
<td>FASH 35B Fashion Illustration II</td>
<td>3</td>
</tr>
<tr>
<td>FASH 55 Icons of Contemporary Design</td>
<td>3</td>
</tr>
<tr>
<td>FASH 67 Computerized Pattern Development: Gerber</td>
<td>3</td>
</tr>
<tr>
<td>FASH 33 Design Portfolio in Fashion</td>
<td>3</td>
</tr>
<tr>
<td>FASH 37 Flat Pattern Design II</td>
<td>3</td>
</tr>
<tr>
<td>FASH 51 Creating a Garment Business</td>
<td>3</td>
</tr>
<tr>
<td>FASH 63 Fashion Design and Production Internship</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 112 Digital Illustration for Fashion</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>51</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 (37-41 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.
Learning Outcomes
Upon completion of this certificate the student will be able to:

• Apply technical skills used in fashion show production, styling, visual merchandising, and fashion coordination.
• Compare and contrast the economic, sociological, technological, psychological, and political factors affecting fashion change and adoption.
• Communicate effectively using standard fashion industry vocabulary.
• Identify the criteria for entry level employment in the fashion merchandising industry, create an entrepreneurial business, or be successful in the next level of fashion coursework, should they choose to continue.

Courses Required for the Certificate of Achievement in Fashion Merchandising:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSMA 66 Business Mathematics</td>
<td></td>
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<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></td>
</tr>
<tr>
<td>FASH 22 Textile Analysis</td>
<td></td>
</tr>
<tr>
<td>or FASH 37 Fabric Glossary</td>
<td></td>
</tr>
<tr>
<td>FASH 42 Introduction to Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASH 44 Fash Retail Buying</td>
<td>3</td>
</tr>
<tr>
<td>FASH 46 Fash Merch</td>
<td>3</td>
</tr>
<tr>
<td>FASH 47 Fash Coordination</td>
<td>3</td>
</tr>
<tr>
<td>FASH 48 Fash Show Prod</td>
<td>4</td>
</tr>
<tr>
<td>FASH 49 Visual Merchandising</td>
<td>3</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</td>
<td>3</td>
</tr>
<tr>
<td>FASH 53 Fashion Forecasting</td>
<td>3</td>
</tr>
<tr>
<td>FASH 54A Fashion Styling</td>
<td>3</td>
</tr>
<tr>
<td>FASH 56 Fashion Writing and Publicity</td>
<td>3</td>
</tr>
<tr>
<td>FASH 60 Field Work</td>
<td>1</td>
</tr>
<tr>
<td>FASH 61 Fash Work Exp</td>
<td></td>
</tr>
<tr>
<td>or FASH 62 Work Exp in Image Consulting</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>38-42</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:

• Describe principles of styling and apply them in visual display, wardrobe styling, and fashion merchandising.
• Effectively communicate clearly and concisely in the fashion industry, using visual, oral and written methods.
• Execute the technical skills for creating fashion images in a photographic media.
• Create and present a mood-board to demonstrate ideas and skills to potential employers, clients, and editors.
• Create and maintain a fashion stylist kit.
• Identify the criteria for entry level employment as a fashion stylist or the next level of fashion coursework should they choose to continue.

Students must complete each course with a grade of “C” or higher. Where applicable, grades of “Pass” may be used.

Courses Required for the Certificate of Accomplishment in Fashion Styling

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 47 Fashion Coordination</td>
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<tr>
<td>FASH 53 Fashion Forecasting</td>
<td>3</td>
</tr>
<tr>
<td>FASH 54A Fashion Styling</td>
<td>3</td>
</tr>
<tr>
<td>FASH 54B Advanced Fashion Styling</td>
<td>3</td>
</tr>
<tr>
<td>FASH 60 Field Work in Fashion Merchandising</td>
<td>1</td>
</tr>
<tr>
<td>FASH 61 Work Experience in Fashion Industry</td>
<td></td>
</tr>
<tr>
<td>or FASH 33 Design Portfolio</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</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.

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

• Execute the technical skills of image consulting.
• Effectively communicate clearly and concisely in the image consulting industry, using visual, oral, and written methods.
• Identify the criteria for entry level employment in image consulting, create an entrepreneurial business, or be successful in the next level of coursework, should they choose to continue.

Courses Required for the Certificate of Accomplishment in Image Consulting

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 45A Image Consulting</td>
<td>3</td>
</tr>
<tr>
<td>FASH 45B Advanced Image Consulting</td>
<td>3</td>
</tr>
<tr>
<td>FASH 47 Fashion Coordination</td>
<td>3</td>
</tr>
<tr>
<td>FASH 54A Fashion Styling</td>
<td>3</td>
</tr>
<tr>
<td>FASH 60 Fashion Field Work</td>
<td>1</td>
</tr>
<tr>
<td>FASH 62 Work Experience in Image Consulting</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</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.
Learning Outcomes
Upon completion of this certificate, students will be able to:

- Apply the principles and elements of textile design when creating their own designs.
- Effectively communicate their design ideas clearly and concisely, using methods oral, written, and visual.

Courses Required for the Certificate of Achievement in Textiles

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 15A Apparel Construction I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 22 Textile Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FASH 25A Weaving I</td>
<td>2</td>
</tr>
<tr>
<td>FASH 25B Weaving II</td>
<td>2</td>
</tr>
<tr>
<td>FASH 25C Weaving III</td>
<td>3</td>
</tr>
<tr>
<td>FASH 64 Fashion Surface Design I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 65 Fashion Surface Design II</td>
<td>3</td>
</tr>
<tr>
<td>FASH 71 Apparel Art</td>
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<tr>
<td><strong>Total Units</strong></td>
<td>21</td>
</tr>
</tbody>
</table>

Recommended Electives: ART 125A, 125B, 126

Textile, Weaving and Sewing Noncredit Certificate

This certificate provides students with foundation skills in several types of needlecraft, including fashion sewing, alterations, quilting, and weaving.

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

- Employ the techniques of quilting and tapestry weaving to create various items, such as pillows, wall hangings, and bedding.
- Create sewn items, including garments and products such as pillows or accessories.
- Alter garments for proper fit.

Courses Required for the Certificate of Completion in Textile, Weaving and Sewing

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 6008 Weaving Tapestry</td>
<td>72</td>
</tr>
<tr>
<td>FASH 6014 Fashion Sewing and Alteration</td>
<td>108</td>
</tr>
<tr>
<td>FASH 6025 Quiltmaking</td>
<td>54</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>234</td>
</tr>
</tbody>
</table>

Announcement of Courses

Credit, Non-Degree Applicable Courses:
FASH A. Introduction to Sewing (1)
Lec-8, lab-24 (total hrs) P/NP Available
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
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
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
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
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
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
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
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
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
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
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 35 A. Fashion Illustration I (3)
Lec-2, lab-3
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
Prereq.: FASH 35A
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
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 42. Introduction to Fashion Industry (3)
Lec-3, field trips
An overview of the fashion industry that prepares students to be on the cutting edge of what is happening. Emphasis will be on the economic, political, sociological, technological and psychological environment that affects why fashion changes and evolves. The role of manufacturers, designers and retailers in the fashion business will be explored along with the elements of fashion marketing. 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
Repeat: FASH 60, 61, 62, and 63 combined, max. credit: 16 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
Repeat: FASH 60, 61, 62, and 63 combined, max. credit: 16 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
Repeat: FASH 60, 61, 62, and 63 combined, max. credit: 16 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
Repeat: FASH 60, 61, 62, and 63 combined, max. credit: 16 units
This course involves student work experience in which the college procures a position for the student. Course requirements include three coordinating conferences per semester and individual meetings by arrangement. CSU

FASH 64. Fashion Surface Design (3)
Lec-2, lab-3, field trips
P/NP available
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
Advis: 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
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
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
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 the specialized skills needed 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
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
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
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)
Prereq.: FASH 6004 or CASC 6008
Advice: FASH 6005 or CASC 6005
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)
Prereq.: FASH 6005 or CASC 6005
The design and weaving of 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)
Prereq.: FASH 6005 or CASC 6005
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)
Prereq.: FASH 6014
Advice: FASH 6014 or CASC 6014
Development of skills in clothing construction. Areas include tailoring, dressmaking, fitting, alterations. Students provide materials and supplies.

FASH 6025. Quiltmaking (54 hrs)
Prereq.: FASH 6025
Advice: FASH 6025 or CASC 6025
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)
Prereq.: FASH 6027
Advice: FASH 6027 or CASC 6027
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, headdresses 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 mattings. Relationship to commercial production of these products is emphasized. A notebook with sample woven presentations is recommended.

FASH 6050. Lingerie (72 hrs)
Prereq.: FASH 6050
Advice: FASH 6050 or CASC 6050
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.

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.

Foreign Languages

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.

Learning Outcomes
Upon completion of this degree, students will be able to:

- Demonstrate fluency to interact in French in a normal and spontaneous fashion at an intermediate level.
- Understand and analyze publications and current affairs media as well as contemporary literary prose.
- Demonstrate understanding of geography and cultural differences in the francophone world.
- Display an intermediate level of proficiency in speaking, understanding, reading and writing in French to perform successfully in upper division courses.

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>
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<tbody>
<tr>
<td>FREN 2 or 2A+2B Cont. of Elem. French</td>
<td>5 or 6</td>
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<tr>
<td>FREN 3A+3B Intermediate French</td>
<td>6</td>
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<tr>
<td>FREN 4 Cont. of Intermediate French</td>
<td>3</td>
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<tr>
<td>FREN 5 Adv. French: Conv. on French</td>
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<tr>
<td>Literature and Culture</td>
<td>3</td>
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<tr>
<td>FREN 22 Grammar Review and Composition</td>
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An additional three (3) units must be completed from the following courses:

<table>
<thead>
<tr>
<th>Courses</th>
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<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>
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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.

Learning Outcomes

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

- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc., as well as many radio or television programs.
- Understand texts which consist mainly of high-frequency everyday or job-related languages.
- Deal with most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.

Courses Required for the Certificate of Accomplishment in French

Core Courses

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<th>Course Title</th>
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<td>FREN 10C</td>
<td>Intermediate Conv. French</td>
<td>3</td>
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<td>FREN 10D</td>
<td>Cont. of Interm. Conv. French</td>
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<td>FREN 10E</td>
<td>Cont. of Interm. Conv. French</td>
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<tr>
<td>FREN 41</td>
<td>Culture and Civilization France</td>
<td>3</td>
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<tr>
<td>FREN 42</td>
<td>Contemporary French Culture &amp; Civ.</td>
<td>3</td>
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<td>FREN 21</td>
<td>French for Business</td>
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Elective Courses

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<td>FREN 20</td>
<td>Independent Studies</td>
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<tr>
<td>FREN 21</td>
<td>French for Business</td>
<td>3</td>
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<tr>
<td>FREN 22</td>
<td>Grammar Review and Composition</td>
<td>3</td>
</tr>
<tr>
<td>FREN 23</td>
<td>French Phonetics</td>
<td>2</td>
</tr>
<tr>
<td>FREN 41</td>
<td>Culture and Civilization of France</td>
<td>3</td>
</tr>
<tr>
<td>FREN 42</td>
<td>Contemporary French Culture and Civ.</td>
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<td>Total Units</td>
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Announcement of Courses

Students of beginning French are directed to consider French courses numbered 1, 1A, 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 French 1, 1A or 10A.

Credit, Degree Applicable Courses:

FREN 1. Elementary French (5)
Lec-5, lab-2 P/NP available
Advise: ENGL 93 or 94; or ESL 160 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 French. CSU/UC
FREN 1A+1B = FREN 1

FREN 2A-2B. Continuation of Elementary French (3-3)
Lec-3, lab-2 P/NP available
Prereq.: FREN 1A or FREN 1B or demonstration of FREN 1A exit skills
Grammar, composition, and reading. Practice in speaking and understanding French. CSU/UC
FREN 2A+2B = FREN 2

FREN 3. Intermediate French (5)
Lec-5, lab-1 P/NP available
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 P/NP available
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 P/NP available
Prereq.: FREN 2 or 2B or demonstration of 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 P/NP available
Prereq.: FREN 2/2B or demonstration of FREN 2/2B exit skills
Advise: FREN 3 or 3B
Reading in and discussion of French literature and culture. Exclusively oral training to acquire greater command of the spoken language 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 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 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 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 20. Independent Studies in French (1)
Lec-1 P/NP available
Prereq.: FREN 3A, 3B, or 4 or demonstration of FREN 3A/3B/4 exit skills
May not be offered every semester.
An individualized study program for improving reading and writing skills in the French language. CSU (UC upon review)

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
Office: Art 202
Phone Number: (415) 239-3223
Web Site: www.ccsf.edu/forlang

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.

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

- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc. as well as many radio or television programs on current affairs.
- Understand texts which consist mainly of high-frequency everyday or job-related language.
- Deal with most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.

Courses Required for the Certificate of Accomplishment in German

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 1 Elementary German</td>
<td>3-5</td>
</tr>
<tr>
<td>or GERM 1A-1B Elementary German</td>
<td></td>
</tr>
<tr>
<td>GERM 2 Continuation of Elementary German</td>
<td></td>
</tr>
<tr>
<td>or GERM 2A-2B Continuation</td>
<td></td>
</tr>
<tr>
<td>of Elementary German</td>
<td>3-5</td>
</tr>
<tr>
<td>GERM 3 Intermediate German</td>
<td>3-5</td>
</tr>
<tr>
<td>or GERM 3A-3B Intermediate German</td>
<td></td>
</tr>
<tr>
<td>GERM 4 Continuation of Intermediate German</td>
<td></td>
</tr>
<tr>
<td>or GERM 4A-4B Continuation</td>
<td></td>
</tr>
<tr>
<td>of Intermediate German</td>
<td>3-5</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course</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></td>
</tr>
</tbody>
</table>

GERM 10D Continuation of Intermediate
Conversational German ................................. 3
GERM 11A, 11B Advanced Conversational German ............................ 3-3
Total Units .............................................. 15

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
Advice: 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
Prereq.: GERM 1A or demonstration of GERM 1A exit skills.
Advice: 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
Prereq.: GERM 1 or IB 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
Prereq.: For GERM 2A: GERM 1 or IB or demonstration of GERM 1/1B exit skills.
Prereq.: 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
Prereq.: 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 10A-10B. Beginning Practical Spoken German (3-3)
Lec-3, lab-2  
P/NP available
Prereq.: 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/UC

GERM 4. Continuation of Intermediate German (5)
Lec-5, lab-1  
P/NP available
Prereq.: 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 3A-3B. Intermediate German (3-3)
Lec-3, lab-1  
P/NP available
Prereq.: 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 10C. Intermediate Conversational German (3)
Lec-3, lab-2  
P/NP available
Prereq.: 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 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 2 or 2A
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 10A-10B. Beginning Practical Spoken German (3-3)
Lec-3, lab-2  
P/NP available
Prereq.: 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/UC

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

Announcement of Curricula

Graphics 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</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSGN 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 23 Orientation to Design and Grp 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>
</tbody>
</table>

Additional graduation requirements

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

Additional graduation requirements

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

Additional graduation requirements

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>Graphic Communications electives*</td>
<td>2</td>
</tr>
</tbody>
</table>

*The program is pending state approval.

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>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>
</tbody>
</table>

Second Semester

<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>GRPH 60 Product Finishing</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 147 Adobe Acrobat</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Units: 16

Suggested electives: GRPH 72A, GRPH 98A, GRPH 101A

*The program is pending state approval.

Please refer to the online version of the Catalog.
Courses Required for Certificate of Achievement in Visual Media Production

Course | Units
--- | ---
GRPH 98A Beginning Adobe Photoshop | 3
GRPH 100B Advanced Adobe Illustrator | 3
GRPH 101B Advanced Adobe InDesign | 3
MMSP 135A Web Development for Designers Level 1 | 3
MMSP 135B Web Development for Designers Level 2 | 3
GRPH 53B Typographic Design | 3
GRPH 68 Design Studio Practicum | 1-3
or GRPH 197 Internship | 1-3

Electives | 9

Total Units | 31-33

Students shall take a minimum of nine units from the following electives: GRPH 27, 140, 145; MMSP 136, 140, 145; CNIT 133

Digital Art Foundation Certificate*

*The program is pending state approval. Please refer to the online version of the Catalog.

Visual Design Foundation Certificate*

*The program is pending state approval. Please refer to the online version of the Catalog.

Visual Media Production Certificate

The Visual Media Production certificate builds on the Visual Design Foundation Certificate for students interested in visual media production. It prepares students to enter the workforce as production artist-integral members of a collaborative team. Production artists are proficient with industry-standard software for print and interactive development and have a working understanding of design process, layout, type and color. Students will refine their skills through a supervised work-experience in a local firm or in Emerge Studio, our on-campus design studio practicum. The CCSF AIGA Student Group provides additional educational, networking and outreach opportunities within the professional design community. The certificate proscribes key courses, but allows the student to customize the program to meet their goals through electives. This certificate requires successful completion of the Visual Design Foundation Certificate (27 units) or demonstration of equivalent knowledge and skills. All courses must be completed with a grade of “C” or higher.

Learning Outcomes

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

• Create files for a variety of media, applying appropriate design and typographic principles.
• Demonstrate proficiency with computer tools and processes used in visual communication.
• Create, edit and troubleshoot files using industry-standard software.
• Select appropriate tools, materials and processes for a range of print and interactive projects.
• Analyze and critique work in verbal and written form.
• Produce production art work both independently and collaboratively.
• Employ professional design/production studio practices, such as project management, record keeping, asset management, file naming and archiving.
• Develop and maintain a professional portfolio of digital media work.

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

Digital Animation Certificate

The Digital Animation certificate builds on the Digital Art Foundation Certificate for students interested in Digital Animation. It combines the study of animation, art, graphics and problem solving using the tools and techniques for digital animation. This course of study prepares students for entry-level positions in digital animation. This school is a partner of the Multimedia Studies Program.
Upon completion of this program, students will be able to:

- Demonstrate understanding of concepts used in the animation field.
- Demonstrate proficiency with computer tools and processes used in animation.
- Create, edit and troubleshoot files using industry-standard software.
- Produce animations both independently and collaboratively.
- Analyze and critique communication design work in verbal and written form.
- Employ professional design/production studio practices, such as project management, record keeping, asset management, file naming and archiving.
- Maintain a portfolio of animation work.

### Courses Required for Certificate of Achievement in Digital Animation

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 133 Visual Development for Animation or Art 136A Beginning Illustration</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 145 Storyboarding and Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 146 2D Animation with Flash</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 147 3D Animation with 3D Studio Max</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 131 Social Media for Professionals or GRPH 149 Portfolio Development</td>
<td>2-3</td>
</tr>
<tr>
<td>MMSP 160 Internship/Work Experience</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Units**: 19-20

### Game Development Certificate

The Game Development certificate requires successful completion of the Digital Art Foundation Certificate (19 units) or demonstration of equivalent knowledge and skills. Each course in this certificate must be completed with a grade of "C" or higher.

#### Learning Outcomes

Students successfully completing the program will be able to:

- Demonstrate understanding of concepts used in game development.
- Demonstrate proficiency with computer tools and processes used in game development.
- Create, edit and troubleshoot files using industry-standard software.
- Produce game work both independently and collaboratively.
- Analyze and critique communication design work in verbal and written form.

- Employ professional design/production studio practices, such as project management, record keeping, asset management, file naming and archiving.
- Maintain a portfolio of game artwork

### Courses Required for Certificate of Achievement in Game Development

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 100 Exploring Game Words</td>
<td>3</td>
</tr>
<tr>
<td>GAME 130 Game Production Workflow</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140 Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 145 Storyboarding and Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 146 2D Animation with Flash</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 147 3D Animation with 3D Studio Max</td>
<td>3</td>
</tr>
<tr>
<td>GAME 150 Career Planning and Portfolio</td>
<td>2-3</td>
</tr>
<tr>
<td>or GRPH 149 Portfolio Development</td>
<td></td>
</tr>
<tr>
<td>GAME 140 Team Production of Games</td>
<td>2-3</td>
</tr>
<tr>
<td>or MMSP 160 Internship/Work Experience</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units**: 22-24

### 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 Certificate of Achievement in Multimedia Studies: Rich Media Production

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 or DSGN 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BCST 140 Studio Video Production or CINE 24 Basic Film Production</td>
<td>3–4</td>
</tr>
<tr>
<td>BCST 145 Field Video Production</td>
<td></td>
</tr>
</tbody>
</table>

#### First Semester

- MMSP 130 Multimedia Process and Production
- BCST 120 Audio Production
Studies: Programming

Courses Required for the Certificate of Achievement in Multimedia

Students successfully completing the program will be able to:

- Apply complex programming techniques to the creation of web-based pages and applications.
- Demonstrate an understanding of the elements and principles of visual design.
- Demonstrate an understanding of iterative design process.
- Analyze and critique communication design work in verbal and written form.
- Produce web site work both independently and collaboratively.

Learning Outcomes

- 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>G R P H 25 Digital Skills for Visual Media</td>
<td>2</td>
</tr>
<tr>
<td>C N I T 132 Intermediate HTML and XHTML</td>
<td>3</td>
</tr>
<tr>
<td>C S 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 Computer Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>C S 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>C S 133A 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>C S 111B Programming Fundamentals: Java</td>
<td>3</td>
</tr>
<tr>
<td>C S 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>C S 183B Flash Game Programming I</td>
<td>3</td>
</tr>
<tr>
<td>Fourth Semester</td>
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<tr>
<td>C N I T 133 Interactive Web Pages</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 150 Advanced Multimedia Production</td>
<td>3</td>
</tr>
<tr>
<td>or MMSP 160 Multimedia Internship/Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>or BCST 165A Industry Internship</td>
<td>3</td>
</tr>
<tr>
<td>or MMSP 151 Independent Multimedia Projects</td>
<td>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; C N I T 131; C I N E 21, 30, 54, 60, 76, 126; G R P H 35, 98A; MMSP 132, 133, 135A, 145, 146, 147, 148, 149; J O U R 35; MUS 29, 31; PHOT 57; TH A 166

Web Foundation Certificate

This certificate provides foundational knowledge and skills for those who want to work on web development. It can serve as a stand-alone certificate, or as the basis for continued study in front-end web development.

Learning Outcomes

Upon completion of this certificate, students will be able:

- Demonstrate an awareness of computer tools and processes used in visual communication and web development.
- Create and edit files and web sites using industry-standard software.
- Demonstrate an understanding of the elements and principles of visual design.
- Demonstrate an understanding of iterative design process.
- Analyze and critique communication design work in verbal and written form.
- Produce web site work both independently and collaboratively.

Courses Required for the Certificate of Accomplishment in Web Foundation

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>G R P H 23 Orientation to Graphics and Multimedia</td>
<td>1</td>
</tr>
<tr>
<td>G R P H 25 Digital Skills for Visual Media</td>
<td>1</td>
</tr>
<tr>
<td>M M S P 125 Multimedia Content and Form</td>
<td>3</td>
</tr>
<tr>
<td>or D S G N 101 Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>M M S P 130 Multimedia Process and Production</td>
<td>3</td>
</tr>
<tr>
<td>G R P H 98A Beginning Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>C N I T 132 Intermediate HTML and XHTML</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</td>
</tr>
</tbody>
</table>
Web Front-end Development Certificate

The Web Front-end Production certificate builds on the Web Foundation certificate for students interested in web development. It prepares students for work as front-end web developers, combining the study of industry-standard software, the development process and front-end web development tools. This certificate requires successful completion of the Web Foundation Certificate (16 units) or demonstration of equivalent knowledge and skills. Each course in this certificate must be completed with a grade of “C” or higher.

Learning Outcomes

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

- Integrate knowledge of industry-standard concepts used in web production to build web sites.
- Demonstrate proficiency with computer tools and processes used in web development.
- Create, edit and troubleshoot files using industry-standard software.
- Produce web front-end work both independently and collaboratively.
- Analyze and critique communication design work in verbal and written form.
- Employ professional design/production studio practices, such as project management, record keeping, asset management, file naming and archiving.

Courses Required for the Certificate of Achievement in Web Front-end Production

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNIT 133</td>
<td>Interactive Web Pages Javascript and Ajax</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 135A</td>
<td>Web Development for Designers Level 1</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 135B</td>
<td>Web Development for Designers Level 2</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 136</td>
<td>User Experience</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 131</td>
<td>Social Media for Professionals</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 198</td>
<td>Internship and Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>or MMSP 160</td>
<td>Multimedia Work Exp/Intern</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
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<td>3</td>
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<tr>
<td>Total Units</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

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 Graphics and Multimedia (1)  
  Lec-16 (total hrs), field trips  
  Overview of the Graphic Communications and Multimedia Studies industries and the requirements for programs of study. Lectures provide an overview of the areas of study, transfer options and employment opportunities. Students will identify the necessary skills to succeed in their fields and determine their program of study. CSU/UC

- GRPH 25. Digital Skills for Visual Media (3)  
  Lec-2, lab-4  
  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

- GRPH 27. Survey of Print Production (3)  
  Lec-2, lab-4, field trips  
  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

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>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 25</td>
<td>Digital Skills for Visual Media</td>
<td>3</td>
</tr>
<tr>
<td>CNIT 131</td>
<td>Internet Basics and Beginning HTML</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 140</td>
<td>Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>or CS 183A</td>
<td>Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 132</td>
<td>Intermediate HTML and CSS</td>
<td>3</td>
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<tr>
<td>CS 110A</td>
<td>Intro to Programming: C++</td>
<td>3</td>
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<tr>
<td>or CS 111A</td>
<td>Intro to Programming: Java</td>
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<tr>
<td>Second Semester</td>
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<tr>
<td>MMSP 140</td>
<td>Flash Essentials</td>
<td>3</td>
</tr>
<tr>
<td>or CS 183A</td>
<td>Multimedia Tools</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 132</td>
<td>Intermediate HTML and CSS</td>
<td>3</td>
</tr>
<tr>
<td>CS 110A</td>
<td>Intro to Programming: C++</td>
<td>3</td>
</tr>
<tr>
<td>or CS 111A</td>
<td>Intro to Programming: Java</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

*Equivalency is available by exam for GRPH 25.
GRPH 35. Graphic Design (3)  
Lec-2, lab-4, field trips  
Prereq.: GRPH 21 or ART 125A or MMSP 125 or DSGN 101  
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

GRPH 36. Intermediate Graphic Design (3)  
Lec-2, lab-4, field trips  
Prereq.: GRPH 35; and 101A  
Continued study of conceptual development, iterative design process, typography and layout for graphic design. CSU

GRPH 37. Advanced Graphic Design (3)  
Lec-2, lab-4, field trips  
Prereq.: GRPH 36  
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

GRPH 40. Digital Printing/Publishing (3)  
Lec-3, lab-3, field trips  
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

GRPH 53A. Basic Typography (3)  
Lec-3, lab-1, field trips  
Prereq.: GRPH 21 or DSGN 101 or MMSP 125  
Coreq.: GRPH 101A  
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

GRPH 53B. Typographic Design (3)  
Lec-3, lab-1, field trips  
Prereq.: GRPH 53A  
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

GRPH 60. Product Finishing (2)  
Lec-1.5, lab-1.5, field trips  
P/NP available  
Advis: GRPH 72A or 40  
A survey and analysis of commercial finishing techniques currently used in print and design production with instruction and practice operating machinery including paper drills/stitchers, cutters, folders, packaging equipment and online finishing systems. Instruction on paper stocks, book imposition, specialty finishing and quality control assessment. CSU

GRPH 98A. Beginning Adobe Photoshop (3)  
Lec-3, lab-1  
Prereq.: GRPH 25 or MMSP 120  
Intensive hands-on course using Adobe Photoshop. A broad understanding of raster image creation and editing is achieved through in-class projects. CSU

GRPH 98B. Advanced Adobe Photoshop (3)  
Lec-3, lab-1  
Prereq.: GRPH 98A  
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

GRPH 100A. Beginning Adobe Illustrator (3)  
Lec-3, lab-1  
Prereq.: GRPH 25 or MMSP 120  
Coreq.: GRPH 27  
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

GRPH 100B. Advanced Adobe Illustrator (3)  
Lec-3, lab-1  
Prereq.: GRPH 100A  
An advanced course in Adobe Illustrator. Creative projects are used to help students to develop a deeper understanding of Illustrator as a design tool. CSU

GRPH 101A. Beginning Adobe InDesign (3)  
Lec-3, lab-1  
Prereq.: GRPH 25 or MMSP 120  
Advise: GRPH 98A or GRPH 100A or GRPH 27  
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

GRPH 101B. Advanced Adobe InDesign (3)  
Lec-3, lab-3  
Prereq.: GRPH 101A  
Prereq.: GRPH 101A  
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

GRPH 110. History of Graphic Design (3)  
Lec-3  
A study of the development of visual communication in art, graphic design, illustration and popular culture from the 19th century to the present. The influence of political, social technological and commercial forces will be discussed and analyzed, with an emphasis on the use and interpretation of imagery, symbols and type in design. CSU

GRPH 110A. Beginning Digital Illustration (3)  
Lec-3, lab-3  
P/NP available  
Prereq.: GRPH 100A, GRPH 98A, ART 130A  
Advise: DSGN 110  
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
P/NP available
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
P/NP available
Prereq.: GRPH 25 and FASH 35B
This course covers techniques in Adobe Photoshop and Illustrator for Fashion Designers. CSU

GRPH 118. Digital Illustration Portfolio (2)
Lec-2
P/NP available
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, field trips
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 Development for Animation (3)
Lec-3, lab-1, field trips
P/NP available
Prereq.: GRPH 98A, 100A and ART 130
Advis: ART 132A
An overview of techniques of visual development for animation. Students will be exposed to developmental stages including character development and storyboarding. CSU

GRPH 140. Design for Interactive Media (3)
Lec-3, lab-3, field trips
Prereq.: GRPH 35 and MMSP 130
A graphic course focusing on interactive media products. Topics of study include information architecture, interface and user considerations, content/structure relationships, and visual design for computer and mobile devices. Students will research and design solutions for various interactive products. 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
Advis: GRPH 53A
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
Advis: 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-1, field trips
Prereq.: GRPH 21, 100A
Advis: GRPH 78, 53A, 151
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
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 155. Bookbinding (3)
Lec-2, lab-4
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: GRPH 197, 198, 199, and HCT 82 combined, max. credit: 16 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: GRPH 197, 198, 199, and HCT 82 combined, max. credit: 16 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: GRPH 197, 198, 199, and HCT 82 combined, max. credit: 16 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 966L  
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 966L  
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  
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  
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  
Development of a portfolio for employment in an entry-level position as a designer or producer in the interactive game industry. This course will include résumé writing, demo reels, design documents, informational interviewing, licensing issues and other topics based on students’ particular track and special interests within the industry. CSU

Multimedia Studies

MMSP 110. Orientation to Graphics and Multimedia (1)  
Lec-16 (total hrs), field trips  
Overview of the Graphic Communications and Multimedia Studies industries and the requirements for programs of study. Lectors provide an overview of the areas of study, transfer options and employment opportunities. Students will identify the necessary skills to succeed in these fields and determine their program of study. CSU  
MMSP 110=GRPH 23

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
ADVLSE: 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
ADVLSE: 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 125 or GRPH 21 or ART 125A or ART 130A
ADVLSE: MMSP 130 AND CNIT 129
This course teaches students how to use online social media tools such as Facebook, Twitter, LinkedIn and YouTube 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
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
ADVLSE: 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 projects through each stage from pre-production to final production. CSU
Formerly IDST 133

MMSP 135A. Web Development for Designers Level 1 (3)
Lec-3, lab-1
P/NP available
PREREQ.: MMSP 130
ADVLSE: MMSP 125
Development for web and smart devices using Dreamweaver and professional level code editors. Topics include separating markup, presentation and content. Section 508, production of accessible web sites and using HTML5 and Cascading Style Sheets are also covered. CSU
Formerly IDST 135A

MMSP 135B. Web Development for Designers Level 2 (3)
Lec-3, lab-1
P/NP available
PREREQ.: MMSP 135A
Overview of advanced tools for designers interested in developing web sites using professional level code editors. Topics include static versus dynamic websites, database-driven websites, creating and styling web forms, adding web form input validation, online databases, creating and styling dynamic web pages, and standards-based web production. CSU

MMSP 136. User Experience (UX/UI) (3)
Lec-3, lab-1
P/NP available
PREREQ.: MMSP 130
This course focuses on industry-standard concepts and vocabulary used in User Experience (UX) for interactive projects, including interface design, information architecture, and UX principles, processes, and techniques. Students explore key topics of user-centered design through a series of hands-on exercises and projects. CSU

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
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

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 storytelling. 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
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-3, 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
Formerly IDST 149

MMSP 150. Advanced Multimedia Production (3)
Lec-1, lab-7  P/NP available
Prereq.: MMSP 135A
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
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: Maximum credit: 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
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 Paramedic 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.9 Title 22. It is recommended that students have six months field experience as an EMT 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 “C” or higher and grade of “C” 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.

Learning Outcomes
Upon completion, students will be able to:

- Comprehend, apply and evaluate information relative to the role of an entry-level Paramedic.
- Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry-level Paramedic.
- Demonstrate personal behaviors consistent with professional and employer expectations of an entry-level Paramedic.
- Apply for the National Registry Paramedic Level cognitive and psychomotor examinations.

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 Paramedic Theory-Roles &amp; Responsib</td>
<td>2</td>
</tr>
<tr>
<td>EMT-P 122 Paramedic 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 Paramedic Theory-Endocrine/Nervous</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 127 Paramedic Theory-Special/Abdominal</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 128 Paramedic Theory-Repri/Pedi</td>
<td>4</td>
</tr>
<tr>
<td>EMT-P 129 Paramedic Theory-Special Systems</td>
<td>5</td>
</tr>
<tr>
<td>EMT-P 130 Paramedic 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>Total Units</td>
<td>53</td>
</tr>
</tbody>
</table>

EKG Technician Certificate

This program prepares students to operate an EKG equipment and work as an EKG Technician in a cardiology office, non-invasive cardiac diagnostic department in a hospital, medical clinic or other medical facilities. Students must maintain a grade of “C” or higher. Graduates are eligible to sit for the national registry examination: Cardiovascular Credentialing International (CCI).

Learning Outcomes
Upon completion of this program, the student will be able:

- Comprehend, apply and evaluate information relative to the role of an EKG Technician.
- Demonstrate technical skills necessary to fulfill the role of an EKG Technician.
- Behave professionally, skillfully, and in a manner consistent with employer expectations for an entry-level position in an EKG Department.
- Demonstrate the technical skills to perform clinical tasks on EKG machines, Holter monitor systems, and exercise stress test equipment.
- Qualify for the national registry examination: Cardiovascular Credentialing International (CCI).

Courses Required for the Certificate of Achievement in CVT/Echocardiography

<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>Spring</td>
<td></td>
</tr>
<tr>
<td>ECHO 401 Adv. Echocardiography Studies</td>
<td>6</td>
</tr>
<tr>
<td>CVT 410 Clinical Experience in Adv. Cardiac Ultrasound</td>
<td>11</td>
</tr>
<tr>
<td>Total Units</td>
<td>68</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 Certificate

Students who complete their training satisfactorily are prepared to hold positions as cardiac sonographers, echocardiography technicians, cardiovascular technicians in a medical center, cardiology officer or health center. Students must maintain a grade of “C” or higher. Graduates are eligible to sit for the national registry examinations: American Registry of Diagnostic Medical Sonography (ARDMS) or Cardiovascular Credentialing International (CCI).

Students must have completed Anatomy 14 or 25, must be eligible for placement into ENGL 96 or ESL 82.
Courses Required for the Certificate of Accomplishment in EKG Technician

<table>
<thead>
<tr>
<th>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

The primary goal of the City College of San Francisco Emergency Medical Technician Program is to prepare students to become competent entry-level patient care providers in emergency medical services. EMT's most often work in the pre-hospital area for ambulance agencies, park service or fire departments. Many students use their EMT training as an introduction to a variety of other medical fields, such as registered nurse, ER Technician, or physician.

This program is in compliance with requirements set forth in the California Code of Regulation, Title 22. All aspects of the EMT Training Program meet or exceed the NHTSA 2009 National EMS Education Standards. Students must maintain a grade of "C" or higher.

Learning Outcomes

Upon successful completion of this program, the student will be able:

- Comprehend, apply and evaluate information relative to the role of an entry-level Emergency Medical Technician.
- Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry-level Emergency Medical Technician.
- Behave professionally and in a manner consistent with employer expectations for an entry-level Emergency Medical Technician.
- Apply for the NREMT exam for certification as an Emergency Medical Technician.

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.

Requirements for the Certificate of Achievement. Students may obtain the Certificate of Achievement in Paramedic by completing each of the following courses in Paramedic Theory and Paramedic Theory and Practice. Students must maintain a grade of "C" or higher.

Learning Outcomes

Upon completion, students will be able to:

- Comprehend, apply and evaluate information relative to the role of an entry-level Paramedic.
- Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry-level Paramedic.
- Demonstrate personal behaviors consistent with professional and employer expectations of an entry-level Paramedic.

- Apply for the National Registry Paramedic Level cognitive and psychomotor examinations.

Courses Required for the Certificate of Achievement in Paramedic

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>EMT-P 120 Paramedic Theory-Human Systems</td>
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<tr>
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<tr>
<td>EMT-P 125 Paramedic Theory-Cardiac</td>
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</tr>
<tr>
<td>Total Units</td>
<td>53</td>
</tr>
</tbody>
</table>

Health Information Technology

General Information

The Health Information Technology (HIT) Program provides competency-based instruction and professional practice experiences to assist students in developing 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 be at the forefront of the healthcare industry where healthcare meets the cutting edge of technology and a member of the healthcare team. 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.

Accreditation. The Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), located at 233 N. Michigan Avenue, 21st floor, Chicago, IL 60601-5800; Telephone: (312) 233-1100, http://www.cahiim.org

Degree Curricula

Upon successful completion of the two-year curriculum in Health Information Technology, graduates are trained to perform specialized skills in electronic (EHR) computer software, security and privacy practices, coding, and collecting, organizing, and analyzing electronic data to improve healthcare information as more healthcare providers and hospitals adopt EHR systems.

As one of the fastest growing occupations, possible career opportunities for practitioners in health information management include data analysts, inpatient and outpatient coding specialists, privacy and security officers, release of information and recovery audit coordinators, clinical data improvement specialists, cancer registrars, and health information managers.

Employment. The United States Department of Labor, Bureau of Labor Statistics project medical record and health information technician's employment is expected to increase by 21% from 2010 to 2020, faster than the average for all occupations. As the population ages, the demand for health services is expected to increase. http://www.bls.gov/oco

Health information professionals are employed in a variety of work settings including hospitals, ambulatory care, physician offices, managed care facilities, long-term care and rehabilitation, behavioral health, chemical dependency and correctional facilities, home health

Courses for the Certificate of Accomplishment

<table>
<thead>
<tr>
<th>Courses</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EKGT 101 EKG Technician I</td>
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</tr>
<tr>
<td>EKGT 102 EKG Technician II</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>8</td>
</tr>
</tbody>
</table>
and hospice, cancer centers, state and federal government agencies, insurance companies, research and policy agencies, accounting and legal firms, coding compliance and data quality organizations, HIM service providers and vendors, consulting firms, academic institutions, pharmaceutical companies, health information exchanges, and other venues.

Employment opportunities for trained health information technicians continue to increase with emphasis on data quality and integrity, management of electronic health information, revenue cycle management and compliance around payment are prevalent both for ambulatory and inpatient care. This is one of the few health occupations in which there is little or no direct contact with patients.

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 91 or ESL 150
3. Attend a HIT orientation session 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 “C” or better in every course receive the Associate in Science Degree in Health Information Technology.

Basis for Disqualification. Students who do not earn a “C” or better in a Health Information Technology program course will have an opportunity to repeat the course to improve their grade. Students who do not earn a “C” or better on the second try will be disqualified from the program. Students may also be disqualified other reasons consistent with College policy.

National Certification Examination Registered Health Information Technician (RHIT). Successful graduates with an Associate in Science Degree in Health Information Technology are eligible to take the national certification examination offered by the American Health Information Association to earn the Registered Health Information Technician (RHIT) credential. AHIMA, located at 233 N. Michigan Avenue, 21st floor, Chicago, IL 60601-5800: Tel: (312) 233-1090; http://www.ahima.org/certification

Students holding an associate's degree, baccalaureate degree or higher in a disciple from an accredited institution of post-secondary education must petition for the Associate in Science Degree in Health Information Technology. A previous degree does not automatically meet General Education Requirements. (See current CCFS Catalog for concise lists and descriptions of General Education Requirements Areas A-H)

Course of Study. Each option, in addition to an emphasis in the major field includes typical course work in computer applications, medical terminology, anatomy and physiology and disease process, data analysis, legal aspects, clinical classification and coding systems, health care reimbursement methods, statistics and data reporting, health information systems, quality assurance and improvement methods and personnel management.

Professional Practice Experience (PPE) refer to supervised rotations in the third and fourth semesters gives students experience in health information management departments in various health care organizations. Each CAHIIM-accredited HIM program must have at least one PPE that helps students assimilate theory with practical application in order to work toward achievement of AHIMA entry-level competencies in a real-world environment.

<table>
<thead>
<tr>
<th>Health Information Technology Major (AS)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning Outcomes</strong></td>
</tr>
</tbody>
</table>
| Upon completion of the Associate in Science degree in Health Information Technology, the student will be able to:
| • Demonstrate record management skills and knowledge necessary for HIM entry-level employment as a health information professional in various health care settings
| • Demonstrate the technical skills and knowledge necessary for HIM entry-level employment as a health information professional in various health care settings
| • Demonstrate the behavioral, interpersonal, ethical, and professional skills necessary for HIM employment as a health information professional in various health care settings
| • Apply and take the Registered Health Information Technician (RHIT) national certification examination offered by the AHIMA
| • Apply and take the Certified Coding Associate (CCA) national certification examination offered by the AHIMA

<table>
<thead>
<tr>
<th>Courses Required for the Major in Health Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course</strong></td>
</tr>
<tr>
<td>First Semester</td>
</tr>
<tr>
<td>One of the following options in Anatomy and Physiology:</td>
</tr>
<tr>
<td>Option 1:</td>
</tr>
<tr>
<td>ANAT 14 Intro to Human Anatomy and Physiology ........ 4</td>
</tr>
<tr>
<td>Option 2:</td>
</tr>
<tr>
<td>ANAT 25 General Human Anatomy ............................ 4</td>
</tr>
<tr>
<td>PHYS 1 Introductory Human Physiology or PHYS 12 Intro to Human Physiology .......................... 4-5</td>
</tr>
<tr>
<td><strong>Course</strong></td>
</tr>
<tr>
<td>HCT 61 Introduction to Health Care .......................... 3</td>
</tr>
<tr>
<td>HIT 50A Medical Terminology I ................................ 3</td>
</tr>
<tr>
<td>HIT 67 Computer Applications in the Health Care Setting .............. 2</td>
</tr>
<tr>
<td>Second Semester</td>
</tr>
<tr>
<td>HIT 50B Medical Terminology II ................................ 2</td>
</tr>
<tr>
<td>HIT 57 Disease Process ........................................... 3</td>
</tr>
<tr>
<td>HIT 63 Health Information Systems ............................... 3</td>
</tr>
<tr>
<td>HIT 65 Organization of Health Data ............................. 2</td>
</tr>
<tr>
<td>HIT 73A Basic ICD Coding ......................................... 2</td>
</tr>
<tr>
<td>Third Semester</td>
</tr>
<tr>
<td>HIT 72 Legal Aspects of HIT ..................................... 3</td>
</tr>
<tr>
<td>HIT 73B Advanced ICD-9-CM Coding ............................ 4</td>
</tr>
<tr>
<td>HIT 77A Professional Practice Experience I ........................ 3</td>
</tr>
<tr>
<td>HIT 74 Introduction to Quality Improvement .................... 2</td>
</tr>
<tr>
<td>Fourth Semester</td>
</tr>
<tr>
<td>HIT 75 Organization and Management ............................ 3</td>
</tr>
<tr>
<td>HIT 76 CPT Coding .................................................. 3</td>
</tr>
<tr>
<td>HIT 77B Professional Practice Experience II ....................... 3</td>
</tr>
<tr>
<td>HIT 78 Reimbursement Methods in HL ............................ 2</td>
</tr>
<tr>
<td><strong>Total</strong> ................................. 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, and Health Information Technology by completing the curriculum with a final grade of “C” or higher or Pass.

Health Information Clerk I Certificate
This certificate program prepares students for entry-level positions in health information management departments. Opportunities for employment include basic record management, reception, admitting department functions, scanning of documents, filing and retrieval of records, filing and sorting loose documents, purging of records, storage and retention activities, data entry, processing admissions and discharges, and assembly of medical documents in a sequential order.

Learning Outcomes
Upon completion of the Health Information Clerk I Certificate of Accomplishment, students will be able to:

- Demonstrate record management skills and knowledge necessary for HIM entry-level employment as a health information professional in various health care settings.
- Perform computer applications necessary for HIM entry-level employment as a health information professional.
- Demonstrate the behavioral, interpersonal, ethical and professional skills necessary for HIM employment as a health information professional in various health care settings.

Courses Required for the Certificate of Accomplishment in Health Information Clerk I

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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</td>
</tr>
<tr>
<td>or PHYS 12 Intro to Human Physiology</td>
<td>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</td>
<td>2</td>
</tr>
<tr>
<td>Care Setting</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 91 Intro to Basic Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ESL 150 Adv Academic ESL</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>15–20</td>
</tr>
</tbody>
</table>

Health Information Clerk II Certificate
This certificate program prepares students for technical positions in health information departments. Employment opportunities include working in a hybrid and electronic environment, analyzing health records for deficiencies according to established standards, maintaining and using a variety of indices and storage retrieval systems; managing the usage and release of health information; collecting and abstracting health data for statistical purposes, scanning of documents and performing quality audits on all documents, assignment of codes according to specific classification systems and use of official coding guidelines for reimbursement, billing and reporting purposes.

Learning Outcomes
Upon completion of the Health Information Clerk II Certificate of Achievement, students will be able to:

- Demonstrate record management skills and knowledge necessary for HIM entry-level employment as a health information professional in various health care settings.
- Perform computer applications necessary for HIM entry-level employment as a health information professional in various health care settings.
- Demonstrate technical skills and knowledge necessary for HIM entry-level employment as a health information professional in various health care settings.
- Demonstrate the behavioral, interpersonal, ethical and professional skills necessary for HIM employment as a health information professional in various health care settings.

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</td>
</tr>
<tr>
<td>or PHYS 12 Intro to Human Physiology</td>
<td>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</td>
<td>2</td>
</tr>
<tr>
<td>Care Setting</td>
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<tr>
<td>ENGL 91 Intro to Basic Reading and Writing</td>
<td>3</td>
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<tr>
<td>or ESL 150 Adv Academic ESL</td>
<td></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 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 72 Legal Aspects of HIT</td>
<td>3</td>
</tr>
<tr>
<td>HIT 73A Basic ICD Coding</td>
<td>2</td>
</tr>
<tr>
<td>HIT 77A Professional Practice I</td>
<td>3</td>
</tr>
<tr>
<td>MATH E1 Basic Math (Individualized)*</td>
<td>2</td>
</tr>
<tr>
<td>or MATH E3 Basic Math (Lecture/Group)</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>32–38</td>
</tr>
</tbody>
</table>

* Requirement based on college Math Placement Test Score.

Health Information Coding Specialist Certificate
This certificate program prepares students to assign diagnostic and procedural codes supported by medical documentation in accordance with official coding and reporting guidelines and compliance regulations. Students choose reportable codes to use on exercises, case scenarios, and actual patient records with basic to moderate and advanced clinical complexity. Courses required for the Certificate of Achievement in Health Information Technology, Coding Specialist.
Learning Outcomes
Upon completion of the Health Information Coding Specialist Certificate in Health Information Technology, students will be able to:

- Assign diagnosis/procedures using the International Classification of Diseases (ICD) official coding guidelines for inpatient and outpatient records
- Use and maintain electronic applications and work processes to support clinical classifications and coding
- Demonstrate professional and behavior skills and adhere to the necessary ethical standards of coding for HIM employment as a health information coder
- Apply for Certified Coding Associate (CCA) examination offered through the American Health Information Management Association (AHIMA)

Courses Required for the Certificate of Achievement in Health Information Coding Specialist

Course | Units
--- | ---
First Semester
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 Intro to Health Care ........................... 3
HIT 50A Medical Terminology I ........................... 3
HIT 67 Computer Applications in the Health Care Setting ............................... 2
ENGL 91 Intro to Basic Reading and Writing or ESL 150 Adv. Academic ESL ........................... 3
Second Semester
HIT 50B Medical Terminology II ........................ 2
HIT 57 Disease Process ...................................... 3
HIT 63 Health Information Systems .................. 3
HIT 65 Organization of Health Care .................. 2
HIT 73A Basic ICD Coding ............................... 2
Third Semester
HIT 73B Adv ICD-9-CM Coding ........................... 4
HIT 74 Introduction to Quality Improvement ........ 2
HIT 76 CPT Coding ......................................... 3
HIT 77A Professional Practice I ........................ 3
HIT 78 Reimbursement Methods in HIT ............................... 2
Total Units ............................................. 41–46

Health Information Technology Certificate
This certificate program is designed for students entering City College with a degree (A.A./A.S. or higher) or satisfying the CCSF graduation requirements.

Learning Outcomes
Upon completion of the certificate program in Health Information Technology, the student will be able to:

- Demonstrate record management skills and knowledge necessary for HIM entry-level employment as a health information professional in various health care settings
- Demonstrate the technical skills and knowledge necessary for HIM entry level employment as a health information professional in various health care settings
- Demonstrate the behavioral, interpersonal, ethical and professional skills necessary for HIM employment as a health information professional in various health care settings
- Apply for the Certified Coding Associate (CCA) national certification examination offered by the American Health Information Management Association (AHIMA)

Courses Required for the Certificate of Achievement in Health Information Technology

Course | Units
--- | ---
First Semester
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 Intro to Health Care ........................... 3
HIT 50A Medical Terminology I ........................... 3
HIT 67 Computer Applications in the Health Care Setting ............................... 2
Second Semester
HIT 50B Medical Terminology II ........................ 2
HIT 57 Disease Process ...................................... 3
HIT 63 Health Information Systems .................. 3
HIT 65 Organization of Health Data .................. 2
HIT 73A Basic ICD Coding ............................... 2
Third Semester
HIT 72 Legal Aspects of HIT ................................. 3
HIT 73B Advanced ICD-9-CM Coding ........................... 4
HIT 77A Professional Practice I ........................ 3
HIT 75 Organization and Management in Health .................. 3
Fourth Semester
HIT 74 Introduction to Quality Improvement ........ 2
HIT 76 CPT Coding ......................................... 3
HIT 77B Professional Practice II ........................ 3
HIT 78 Reimbursement Methods in HIT ............................... 2
Total Units ............................................. 47–52

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 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 wheelchairs
- 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 enrollment in the Professional Practice Internship.

Credit by Examination. Applicants who have been admitted to the Program and who have previous education or medical assisting/clinical 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), 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 the physician’s office, hospital outpatient clinic, medical clinics, and health centers. Students must maintain a grade of “C” or higher. The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 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 program the student will be able to:

- Perform the clinical skills necessary for entry-level employment as a medical assistant in an ambulatory health care setting
- Perform the administrative skills necessary for entry-level employment as a medical assistant in an ambulatory health care setting
- Demonstrate the behavioral, ethical, and professional interpersonal skills necessary for employment as a medical assistant in an ambulatory health care setting
- Apply for the Certified Medical Assistant (CMA) examination offered by the AAMA.
- Apply for the certified phlebotomy Technician (CPT-1) examination.

Courses Required for the Major in Medical Office Assisting

<table>
<thead>
<tr>
<th>Courses Required for the Major in Medical Office Assisting</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 . . . . . 4–5
Courses Required for the Major in Medical Administrative Assisting

Course Units
Fall Semester
HCT 61 Introduction to Health Care ......................... 3
HIT 50A Medical Terminology I .......................... 3
HIT 57 Disease Process ................................ 3
MED 49 Clinical Procedures ............................ 4
MED 56 Administrative Procedures ...................... 3
Spring Semester
ERT 104 Introduction to Phlebotomy ...................... 3.5
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 Computers for the Medical Office ............... 1.5
Summer Semester
HCT 82 Professional Practice
Internship/Certification .................................. 5
Fall Semester
HIT 73A Basic ICD Coding ................................ 3
HIT 75 Organization and Management .................... 3
MED 73 Advanced Medical Manager ..................... 2
Total Units ................................................. 57-62

Medical Administrative Assisting Major (AS)

Students who complete their training satisfactorily are prepared to hold positions as a medical receptionist, admitting clerk, ward clerk, or office manager in the physician's office 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 this program, the student will be able to:

- Perform the reception skills necessary for entry-level employment as a Medical Administrative Assistant in an ambulatory health care setting
- Perform the medical billing procedures necessary for entry-level employment as a Medical Administrative Assistant in an ambulatory health care setting
- Perform computer applications necessary for entry-level employment in an ambulatory health care setting
- Perform the management skills necessary for entry-level employment in an ambulatory health care setting
- Apply for the Certified Professional Coder (CPC) examination

Courses Required for the Major in Medical Administrative Assisting

Course Units
Fall Semester
HIT 50A Medical Terminology I .......................... 3
HIT 57 Disease Process ................................ 3
MED 56 Administrative Procedures ...................... 3
Spring Semester
HIT 50B Medical Terminology II .......................... 2
HIT 73A Basic ICD Coding ................................ 2
HIT 76 CPT Coding ......................................... 3
MED 55 The Electronic Health Record .................... 4
MED 70 Medical Bookkeeping and Insurance ............ 3
MED 71 Electronic Management of Financial
Medical Records ........................................ 1.5
Summer Session
HCT 82 Professional Practice
Internship/Certification .................................. 5
Fall Semester
HIT 75 Organization and Management .................... 3
MED 72 Advanced Insurance Billing ...................... 3
MED 73 Advanced Medical Manager ..................... 2
Total ....................................................... 51.5-56.5

Medical Biller Certificate

This certificate program prepares students to complete medical insurance claims for private physician offices and outpatient facilities. Students learn CPT and ICD-9-CM coding, medical terminology, disease process, manual and computer bookkeeping procedures, manual and computer insurance billing for private insurance, Medicaid, Medicare, Worker’s Compensation, and managed care plans. Students must maintain a grade of “C” or higher.

Learning Outcomes

Upon completion of this program, 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 in an ambulatory health care setting
- Apply for the Certified Professional Coder (CPC) examination

Courses Required for the Medical Biller Certificate of Achievement

Course Units
Spring Semester
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 ........................ 4
or PHYS 12 Intro to Human Physiology ........................ 4-5

Course Units
Fall Semester
HIT 66 Medical Typing/Transcription ........................ 4
HIT 50A Medical Terminology I .......................... 3
HIT 57 Disease Process ................................ 3
MED 70 Medical Bookkeeping and Insurance ............ 3
MED 71 Electronic Management of Financial
Medical Records ........................................ 1.5
BSMA G, H, J, or MATH E1 OR E3 ........................ 2-3

Course Units
Fall Semester
HIT 50B Medical Terminology II .......................... 2
HIT 57 Disease Process ................................ 3
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 instruction in anatomy and physiology, medical terminology, 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 grade of C or higher.

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 entry-level employment as a Medical Evaluation Assistant in an ambulatory health care setting.
- Demonstrate the behavioral, ethical, and professional interpersonal skills necessary for employment as a Medical Evaluation Assistant in an ambulatory health care setting.
- Apply for the Certified Phlebotomy Technician examination (CPT-I)

Enrollment is open to all interested students; however, students must have completed ESL 150 or place in ENGL 92 or ESL 160.

Courses Required for the Certificate of Achievement in Medical Evaluation Assistant

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester (15-20 units)</td>
<td></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>MED 55 The Electronic Health Record</td>
<td>4</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 Psychology      | 4     |
| or PHYS 12 Intro to Human Physiology      | 4-5   |
| Spring Semester (17.5 units)              |       |
| ERT 104 Introduction to Phlebotomy        | 4     |
| HIT 50B Medical Terminology II            | 2     |
| HIT 57 Disease Process                    | 3     |
| HLTH 66 Health Education and Chronic Disease | 3   |
| MED 49 Clinical Procedures                | 4     |
| MED 71 Electronic Management of Financial Medical Records | 1.5 |

Total Units .................................................. 39.5–46.5

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 a physician’s office, hospital outpatient clinic, medical clinic, and health centers.

The medical assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 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 examination given by the American Association of Medical Assistants (AAMA). Students must maintain a grade of C or higher.

Learning Outcomes

Upon completion of the Certificate of Achievement in Medical Office Assisting, the student will be able to:

- Perform the clinical skills necessary for entry-level employment as a medical assistant in an ambulatory health care setting
- Perform the administrative skills necessary for entry-level employment as a medical assistant in an ambulatory health care setting
- Demonstrate the behavioral, ethical, and professional interpersonal skills necessary for employment as a medical assistant in an ambulatory health care setting
- Apply for the Certified Medical Assistant Examination (CMA) offered by the AAMA
- Apply for the Certified Phlebotomy Technician Examination (CPT-1)

Students must be eligible for ENGL 92 or ESL 160.

Courses Required for the Certificate of Achievement in Medical Office Assisting

<table>
<thead>
<tr>
<th>Course</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

Fall Semester

- HCT 61 Introduction to Health Care .......................... 3
- HCT 66 Medical Typing/Transcription ......................... 4
- HIT 50A Medical Terminology I ................................ 3
- HIT 57 Disease Process ......................................... 3
- MED 49 Clinical Procedures .................................... 4
- MED 56 Administrative Procedures ............................ 3

Spring Semester

- ERT 104 Introduction to Phlebotomy .......................... 3.5
- HIT 50B Medical Terminology II ............................... 2
- HIT 73A Basic ICD Coding ......... 2
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 Center, 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/mariculation_services/ged_center.html

Successful applicants are required to submit evidence of a recent tuberculosis 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.

Medical Receptionist Certificate

This certificate program prepares students for employment as a receptionist in a physician’s office, outpatient clinic, or other medical facility. Students receive training in computer applications, appointment scheduling, telephone etiquette, medical record preparation, medical terminology, business correspondence, insurance claims completion, and first aid and CPR. Students must maintain a grade of “C” 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 as a medical receptionist in an ambulatory health care setting
- Perform computer applications necessary for entry-level employment in an ambulatory health care setting
- Demonstrate the behavioral, ethical, and professional interpersonal skills necessary for employment as a Medical Receptionist in an ambulatory health care setting

Courses Required for the Certificate of Achievement in Medical Receptionist

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 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 or PHYS 12 Intro to Human Physiology</td>
<td>4–5</td>
</tr>
<tr>
<td>Spring Semester</td>
<td></td>
</tr>
<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>MED 56 Administrative Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Summer</td>
<td></td>
</tr>
<tr>
<td>HCT 82 Professional Practice Internship/Certification</td>
<td>5</td>
</tr>
<tr>
<td>Total Units</td>
<td>36.5–41.5</td>
</tr>
</tbody>
</table>

HIT 76 CPT Coding ........................................... 3
MED 55 The Electronic Health Record ............... 4
MED 70 Medical Bookkeeping and Insurance ........... 3
MED 71 Electronic Management of Medical Records .... 1.5

Summer Session
HCT 82 Professional Practice Internship/Certification ... 5
Total Units .................................................... 51–56
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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>PHTC 101 Theory I</td>
<td>9</td>
</tr>
<tr>
<td>PHTC 102 Clinical I</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
</tr>
<tr>
<td>PHTC 103 Theory II</td>
<td>9</td>
</tr>
<tr>
<td>PHTC 104 Clinical II</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>

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.

Unit Coordinator (Hospital)/Ward Clerk Noncredit Certificate

This program is designed to introduce the student to the clerical duties of the hospital unit coordinator. The unit coordinator serves as the liaison between the hospitalized patient and the medical professionals in an acute care or other medical facility environment. Students will gain the knowledge and communication skills necessary for this entry-level position.

Learning Outcomes

Upon completion of this program, the student will be able to:

- Describe the various health care departments and delivery systems
- Describe the role and responsibilities of a unit coordinator in a nursing care unit of a hospital
- Apply appropriate medical terminology on the clinical site
- Demonstrate professional behavior and team work skills in the health care environment

Admission Requirements. High school diploma, GED, or high school proficiency certificate.

Length of Course. One semester.

Core Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours/Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHWC 9183 Unit Coordinator (Hospital)</td>
<td>162</td>
</tr>
</tbody>
</table>

Requirements for Completion of Completion. Successful completion of required courses with a grade of “C” or higher.

Announcement of Courses

Credit, Degree Applicable Courses:

Echocardiography

ECHO 101. Echocardiography (7)
Lec-6, lab-3
Prereq.: ANAT 14 or 25
Coreq.: CVT 101, CVT 110
Cardiac anatomy and physiology. Standard presentation of Two Dimensional (2D) and M-Mode images. Principles and characteristics of color flow Doppler. Color flow, pulse and continuous wave Doppler investigated and applied to normal and abnormal cardiac ultrasound studies. Disease states relationship to ultrasound findings and calculations will be used to determine severity. CSU

ECHO 201. Advanced Echocardiography Technician (7)
Lec-5, lab-6
Prereq.: ECHO 101, CVT 101, CVT 110
Coreq.: CVT 201, CVT 210
Advanced cardiac abnormalities evaluated by two dimensional (2D), M-Mode, and Doppler methods include: stenosis, valve abnormalities, regurgitation, diastolic dysfunction, cardiomyopathies, pericardial and coronary artery disease, congestive heart failure, hypertension, pulmonary hypertension, right ventricular methods of evaluation, masses and tumors, endocarditis, prosthesis, aortic root diseases, and cardiac transplants. Transesophageal Echocardiography: standard views and cardiac identification. CSU

ECHO 301. Advanced Cardiac Abnormalities (5)
Lec-5, lab-6, field trips
Prereq.: ECHO 201
Description and analysis of advanced cardiac abnormalities including cardiac embryology and congenital cardiac defects. Emphasis on cardiac congenital pathology, methods of interrogation used specifically with congenital cardiac ultrasound, and ultrasound findings of surgical repairs. CSU

ECHO 401. Advanced Echocardiographic Studies (6)
Lec-6
Prereq.: ECHO 101, CVT 101, ECHO 201, CVT102, ECHO 301, CVT 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.
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
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
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.: ECHO 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
Prereq.: CVT 201
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
Prereq.: CVT 210
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, lab-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

EKGT 101. EKG Technician I (4)
Lec-3, lab-3
Prereq.: ESL 72 or 150
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

EKGT 102. EKG Technician II (4)
Lec-3, lab-3
Prereq.: EKGT 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
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
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
Provides the theoretical knowledge and technical skills necessary for working in the emergency pre-hospital medical field. CSU
EMT 101A-101B = EMT 101

EMT 101B. Emergency Medical Technician (3.25)
Lec-2, conf-2
Prereq.: EMT 101A
Coreq.: Completion/concurrent enrollment in EMT 102
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
EMT101A-101B = EMT 101

EMT 102. EMT I - Clinical (1)
Conf-4
Coreq.: EMT 100 OR 101
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 for paramedic training. CSU

EMT 103. EMT Refresher (1.5)
Lec-24 (total hrs); lab-8
Prereq.: Current EMT-I 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
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

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 partner. 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 ECG's. 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 state, 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 newborn 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
Advise: 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
Advise: 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, genitourinary, 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 phlebotomists 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 certification exam in Phlebotomy. CSU

Health Care Technology

HCT 60A. Health Care Provider Refresher (1)
Lec-1
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 education course for health care professionals. The content will focus on standard 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
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 education 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
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 education 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 integumentary systems. CSU

HCT 60D. Health Care Provider Refresher (1)
Lec-1
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 education 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.: 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 correction 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: GRPH 197, 198, 199, and HCT 82 combined, max. credit: 16 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 disabilities. Emphasis is on entry into the profession, legal requirements, and positive clinical interventions. CSU

HCT 101. Traditional Chinese Medicine (3)
Lec-3
Prereq.: 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, anatomy, 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-preparedness 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 domestic 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, tasting, entering channels, dose, functions, indications, contra-indications, and some simple combinations of 116 of the most commonly used substances in the Chinese Medicinal Pharmacopoeia. 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

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 P/NP only
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 P/NP only
Prereq.: HIT 77A
Recommended to be taken in student’s last semester.
Designed to provide students with advanced technical experience in health information departments. Tasks include quality assessment, medical transcription, registries, abstracting and coding, special projects in management and supervision. 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

Medical Assisting

MED 49. Clinical Procedures (4)
Lec-3, conf-3
Prereq.: ANAT 14
Coreq.: HIT 50A
Advisement: Placement in MATH 40 or completion of BSMA G, H, J or MATH 11
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 70. 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 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 capitigated 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

PHTC 102. Pharmacy Technician I - Clinical (3)
Conf-10
Coreq.: PHTC 101
Instruction includes application of pharmaceutical knowledge, pharmacy law, mathematics, and terminology to a clinical setting as well as storage and labeling of drugs requirements, sterile products preparation, 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 chemotherapeutic 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 prescriptions. Emphasis on quality assurance and the use of automated technology as related to preparation of IV admixtures and chemotherapeutic 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
Advising: TRST 2421
Practical skills and techniques in transcribing and processing of medical 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 students 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 individual, 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, two 11-unit certificates with an emphasis in 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 Metro Academy of Health - for students preparing to transfer to California State Universities to complete bachelor’s degrees in health education, public health, urban studies, other social sciences, humanities and related fields. Metro Academy of Health is a multiple semester 30-33 unit program of study. Students participate in linked learning community classes in Health Education, English, Speech and Mathematics. Classes are infused with health and social justice content and designed to strengthen writing, oral communication, critical thinking and quantitative reasoning skills. Metro Academy of Health also emphasizes academic success skills and provides counseling support. For more information, please call the program coordinator at (415) 239-3513.

**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 CCSF’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 20-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 14 units of required courses. 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 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 (or MATH 80 or ECON 5), which requires students to take the Math Placement Test and to either place into the class or take MATH 60 or 860 or MATH 45 or 845 as a prerequisite. Some of our elective courses also have prerequisites. These courses are highlighted with an asterisk (*) in the list of elective course options.

**Learning Outcomes**
Upon completion of this program, the student will be able to:

- Analyze the various factors that shape health and illness of individuals and communities and propose and compare strategies to improve health.
- Demonstrate communication skills that enhance interpersonal relations and value cultural awareness and sensitivity.
- Examine the causes of health inequities and critically analyze theoretical models and research findings.
- Access, interpret and analyze health data; design tools, measures and apply statistical models to understand and improve community health.
• Meet the requirements for transfer to health education and related programs in the California State University System.

Courses Required for the Major in Health Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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></td>
</tr>
<tr>
<td>HLTH 54 Introduction to Public Health</td>
<td>3</td>
</tr>
<tr>
<td>BIO 9 Human Biology</td>
<td></td>
</tr>
<tr>
<td>or BIO 11 Intro to the Science of Living Organisms</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 5 Statistics for Behavioral Sciences</td>
<td></td>
</tr>
<tr>
<td>or ECON 5 Introductory Statistics</td>
<td></td>
</tr>
<tr>
<td>or MATH 80 Probability and Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

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></td>
</tr>
<tr>
<td>HLTH 14 Advanced CPR and First Aid</td>
<td></td>
</tr>
<tr>
<td>HLTH 30 Drugs and Society*</td>
<td></td>
</tr>
<tr>
<td>HLTH 35 Holistic Health</td>
<td></td>
</tr>
<tr>
<td>HLTH 38 Trauma Response and Recovery*</td>
<td></td>
</tr>
<tr>
<td>HLTH 48 Violence as Public Health Issue</td>
<td></td>
</tr>
<tr>
<td>HLTH 50 Tai Chi for Health</td>
<td></td>
</tr>
<tr>
<td>HLTH 64 Health Education and Prevention</td>
<td></td>
</tr>
<tr>
<td>HLTH 65 Youth Development and Leadership</td>
<td></td>
</tr>
<tr>
<td>HLTH 66 Health Education and Chronic Disease Management</td>
<td></td>
</tr>
<tr>
<td>HLTH 68 HIV/STI Outreach Skills</td>
<td></td>
</tr>
<tr>
<td>HLTH 67 HIV/STI Prevention Education</td>
<td></td>
</tr>
<tr>
<td>HLTH 72 Cultural Aspects of Addiction*</td>
<td></td>
</tr>
<tr>
<td>HLTH 73 Case Management/Individual Intervention*</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 76 Group Facilitation*</td>
<td></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></td>
</tr>
<tr>
<td>HLTH 90A Homelessness Issues</td>
<td></td>
</tr>
<tr>
<td>HLTH 91C Hepatitis ABC’s</td>
<td></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 Health &amp; Stress in Society</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 110 Health Impacts of Incarceration</td>
<td></td>
</tr>
<tr>
<td>HLTH 111 Women, Incarceration and Health</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 116 Conflict Resolution Skills in the Health Care Workplace</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 120 Health and Educational Justice</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 221 Health and Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 231 Urban Health Policy</td>
<td></td>
</tr>
<tr>
<td>ADMJ 59 Organized Crime and Gangs: A Social, Cultural and Legal Perspective</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 25 General Human Anatomy</td>
<td></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></td>
</tr>
<tr>
<td>IDST 37 Racial and Ethnic Groups in the United States-A Comparative Survey</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>
</tbody>
</table>

PSYC 22 or 23 Psychology of Race & Ethnic Relations . 3
PHYS 1 Introduction to Human Physiology .............3
WOMN 54 The Politics of Sexual Violence .............3
Total Units ........................................ 20

*Classes marked with an asterisk have pre-requisites.

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, 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 (or HLTH 201), must re-apply for admission to the program.

For more information, an application or a form for documenting work experience, go to www.csf.edu/chw, call (415) 452-7481 or come to MUB 353.

Requirements for the Certificate of Accomplishment. To receive the Certificate of Accomplishment, the following must be satisfied:

1. An approved internship placement secured during the semester before teh start of the internship placement;
   - Option 1: Secured during HLTH 60/62
   - Option 2: Secured during HLTH 201
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 Transfer. 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 health 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 counseling drawing 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>
</tbody>
</table>

*Note: HLTH 60 (3 units) and HLTH 62 (2 units) are taken concurrently or alternately HLTH 201 (5 units) in the first semester. HLTH 61 (3 units) and HLTH 63 (2 units) are taken concurrently in the second semester.

Students must complete four units from the following list of electives:

Course Units

<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>
<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 46 Immigrant Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 65 Youth Leadership in Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 66 Chronic Conditions</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 97 Health &amp; Stress in Society</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 83 Motivational Counseling Skills</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 90B Harm Reduction and Health</td>
<td>0.5</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>HLTH 116 Conflict Resolution Skills</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 117 Demystifying Health Research</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 221 Health and Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 231 Urban Health Policy</td>
<td>3</td>
</tr>
<tr>
<td>ERT 104 Intro to Phlebotomy</td>
<td>3.5</td>
</tr>
<tr>
<td>MED 49 Clinical Procedures</td>
<td>4</td>
</tr>
<tr>
<td>CDEV 67 The Child, the Family, &amp; the Community</td>
<td>3</td>
</tr>
<tr>
<td>WOMN 54 Politics of Sexual Violence</td>
<td>3</td>
</tr>
<tr>
<td>WOMN 55 Ending Sexual Violence</td>
<td>3</td>
</tr>
<tr>
<td>IDST 80-81 Diversity &amp; Social Justice</td>
<td>0.5–1</td>
</tr>
<tr>
<td>ADMJ 51 Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 59 Organized Crime and Gangs</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 12 Hlth Providers Basic Life Support/First Aid and</td>
<td>3</td>
</tr>
<tr>
<td>Basic Life Support for Healthcare Providers</td>
<td>1–2</td>
</tr>
<tr>
<td>HLTH 67 HIV/STI Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 94 Transgender Hlth: An Overview</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 95 Transgender Hlth: Working with Clients and Communities</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 96 Transgender Hlth: Public Health Strategies</td>
<td>0.5–1</td>
</tr>
<tr>
<td>LERN 51 College Success Basics</td>
<td>3</td>
</tr>
<tr>
<td>LERN 52A Specific Study Strategies</td>
<td>3</td>
</tr>
<tr>
<td>LERN 52B Specific Study Strategies</td>
<td>3</td>
</tr>
<tr>
<td>LERN 62 Successful Job Search Techn.</td>
<td>0.5–1</td>
</tr>
<tr>
<td>SUPV 231 Supervision/Management</td>
<td>3</td>
</tr>
<tr>
<td>SUPV 234 Communication for Business Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>MABS 202 PowerPoint Presentations</td>
<td>3</td>
</tr>
<tr>
<td>MABS 391 Word Proc/Microsoft Word</td>
<td>3</td>
</tr>
</tbody>
</table>
Post-Prison Health Worker Specialty Certificate

The curriculum for the Post-Prison Health Worker certificate is designed to prepare individuals for positions working with incarcerated 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, and 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 completion of 20 units.

Learning Outcomes

In addition to the student learning objectives described in the Community Health Worker Program, students completing the specialty Post-Prison Health Worker Certificate Program will also be able to:

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 Assistants 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 conditions 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 62* Prep for Field Experience</td>
<td></td>
</tr>
<tr>
<td>or HLTH 201* CHW Principles &amp; Practice 1</td>
<td>2-5</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 66 Health Education and Chronic Disease Management</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 110 Health Impacts of Incarceration</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 116 Conflict Resolution</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: HLTH 60 (3 units) and HLTH 62 (2 units) are taken concurrently or alternately HLTH 201 (5 units) in the first semester. HLTH 61 (3 units) and HLTH 63 (2 units) are taken concurrently in the second semester.

Students must complete three (3) units from the following list of electives:

- HLTH 10 Health and Aging                   | 3     |
- HLTH 25 Women’s Health Issues              | 3     |
- HLTH 27 Men’s Health Issues                | 3     |
- HLTH 38 Trauma Response and Recovery       | 3     |
- HLTH 54 Introduction to Public Health       | 3     |
- HLTH 64 Health Education Practice          | 3     |
- HLTH 65 Youth Development and Leadership    | 3     |
- HLTH 67 HIV/STI Prevention Education       | 3     |
- HLTH 90B Harm Reduction and Health         | 0.5   |
- HLTH 91C Hepatitis ABCs                    | 1     |
- HLTH 95 Transgender Health: Clients & Communities | 1     |
- HLTH 96 Transgender Hlth: Public Health Strategies | 2     |
- HLTH 97 Health & Stress in Society          | 3     |
- MABS 60 Intro to Comp Appl for Business     | 3     |

Total Units .................................................. | 20    |

Youth Worker: Organizing, Advocacy, Counseling and Education Certificate

The Youth Worker Certificate is designed to prepare individuals for positions working with youth ages 13–21 with community health and social services 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 an 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:

- 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.
- Describe basic adolescent and human development and its role in youth behavior and decision making.
- 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></td>
</tr>
<tr>
<td>AND HLTH 62* Prep for Field Experience</td>
<td></td>
</tr>
<tr>
<td>OR HLTH 201* CHW Principles &amp; Practice 1</td>
<td>5</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 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 and HLTH 62 are taken concurrently or alternately HLTH 201 in the first semester. HLTH 61 and HLTH 63 are taken concurrently in second semester.
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 97 Health & Stress in Society ………………………..3
- 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
- LERN 62 Successful Job Search Techniques …………………1
- LERN 63 Career Counseling for Work Experience …………1
- WOMN 54 Politics of Sexual Violence ………………………3
- WOMN 55 Ending Sexual Violence …………………………3
- HLTH 11A Pediatric CPR and First Aid or HLTH 12 Hlth 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. The program engages mental health consumers, their family members, and other interested individuals and communities. It 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.

Learning Outcomes

Upon successful completion of the program students will be able to demonstrate the following:

- 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.
- 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.
- 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.
- Plan, convene, and facilitate recovery and wellness based groups with diverse populations, including the development and presentation of educational materials.
- Appraise the effects of family concerns, rules, roles, values, beliefs, and cultural constructs, on emotional and relational health, interpersonal behavior, wellness, and substance abuse.
- Collaboratively support families in managing the effects of culture, environment, social systems, stigma, trauma, and human diversity in their recovery process.
- Demonstrate proficiency in articulating medical model and wellness/recovery based terminology, concepts, and service delivery principles in multiple settings and work environments.
- 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.
- 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.
- 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

Course Units
- HLTH 102 Helping Relationships: Recovery & Wellness …………3
- HLTH 103 Community and Group Forums ………………………3
- HLTH 88 Family Systems: Theories and Practice ………………3
- HLTH 104 Internship Prep. and Professional Conduct …………3
- HLTH 105 Internship Placement and Performance ……………3
- Electives: total elective units (see below) ……………………1
- Total Units ……………………………………………………..16

Students must complete at least one unit from the following list of electives:
at least 125 hours each with a state-licensed substance abuse services agency. Preparation and supervision for the field work experience will be provided in HLTH 79A and HLTH 79B.

### Learning Outcomes

Upon successful completion of the program students will be able to:

- 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.

- Demonstrate the principles and practice of case management in addiction treatment including the processes of intake, screening, assessment, treatment planning, referral and documentation.

- 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.

- 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.

- Differentiate and discuss the concepts and practices of harm reduction and cultural humility.

- Compare and contrast the major concepts, definitions and features of co-occurring conditions associated with addiction.

- Describe the relationships among trauma, substance use and abuse, HIV and mental health.

- Conduct client-centered counseling drawing upon active listening and motivational interviewing skills.

- Formulate the basic concepts of family systems theory and families impacted by substance abuse.

- Describe, select and appropriately use strategies from culturally relevant models for group counseling with clients who abuse substances.

- Design and provide culturally relevant formal and informal education programs.

### Courses Required for the Certificate of Achievement in Drug and Alcohol Studies

#### Course

<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 typically offered in both the Fall and Spring semesters: HLTH 30, 70, 72, 75, 78, 88, 90B, 100, 103.

The following courses are typically offered in the Fall semester only: HLTH 74, 79A, 83.

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 HCl 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 the Language of Service (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.

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 health 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 67 HIV/STI Prevention</td>
<td>3</td>
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</tbody>
</table>

**HIV/STI Prevention: Facilitation Skills Certificate**

<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 or HLTH 103 Community &amp; Group Forums</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>II</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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH E. Successful Communication/Health Occupations (1)</td>
<td>P/NP</td>
</tr>
<tr>
<td>Appropriate for students in Health Care Technology programs, Nursing, Vocational Nursing, Dental Assisting, Dental Lab, Radiology and Medical Imaging. ADVISE: ESL 150 or Placement in 160</td>
<td></td>
</tr>
<tr>
<td>Practical preparation for successful communication in the Allied Health Fields. Designed for non-native speakers.</td>
<td></td>
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</tbody>
</table>

**HLTH 6. End of Life Issues in the U.S. (3)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 6</td>
<td>End of Life Issues in the U.S.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multidisciplinary survey of end of life issues including cultural perspectives, public health policy, health care systems, psycho-social theories and methodology, and decision making about end of life care at the individual, family, community and societal level in the U.S.</td>
<td></td>
</tr>
</tbody>
</table>

**HLTH 8. Preparation for Careers in Health (1)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HLTH 8</td>
<td>Preparation for Careers in Health</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A survey of career opportunities in the health field. The course also provides self-management and communication skills useful to most health careers.</td>
<td></td>
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</tbody>
</table>

**Credit, Degree Applicable Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 5. Community Health</td>
<td></td>
</tr>
<tr>
<td>Lec-4, field trips</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td></td>
</tr>
</tbody>
</table>
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 (0.5)  
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  
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 Preventive 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  
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  
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 services 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.  
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 17 = F SC 17

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 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 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
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. The class will select a health topic of mutual interest, and identify key steps for the development of social marketing materials which address the issue. 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, field trips  P/NP available
Practical application of Tai Chi in daily lives can be introduced and understood through basic principles of Chinese Medicine as applied to exercise, diet, and environment. Tai Chi and Tai Chi Qigong are meditation in movement exercises and are methods of preventive health care, stress relief, mental alertness and bodily control. 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
Advised: 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, sexual activity, 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 Workers 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 CHW's 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 topic 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
Advise: HLTH 68; discuss with instructor: 2 yrs work experience in HIV/STI prevention needed to possibly waive prerequisite
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
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, 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)
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 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 and 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, trauma, and chemical dependency are considered. 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 91B. Health Education: Introductory Asthma
HLTH 91C. Hepatitis ABC’s
HLTH 91D. Recovery Model in Mental Health
HLTH 91E. Introduction to Managing Program Data
HLTH 91F. Introduction to Grant Writing Process
HLTH 91G. Health, Education, and Equity

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. Health & Stress in Society (3)
Lec-3, field trips  P/NP Available
Overview of social and behavioral theories and core concepts of stress, stress reduction and stress management. Critical assessment of the health impacts of stress on individuals, communities, and society. Evidence based approaches to reducing stress responses and promoting improved health indicators will be explored. 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 movement policy.

HLTH 103. Community and Group Forums (3)
Lec-3
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
The 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 health 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 psychosocial 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 201. CHW Principles and Practice I (5)  
PREREQ: HLTH 59  
Trains and prepares students for CHW positions in the health and social service fields. The course emphasizes skill development in areas such as: health advising, documentation, interviewing and intake, and client advocacy. CSU

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

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
rerecovering 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 AB243 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 and 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.

Announcement of Curricula

Learning Outcomes

Upon completion of courses in History, students will be able to:

- Demonstrate a breadth of knowledge of historical developments and trends, including the impact of class, gender, ethnicity, culture and politics related to the courses taken.
- Demonstrate the ability to critically analyze, evaluate and synthesize historical evidence and interpretations and to use methods of inquiry and expression appropriate to the course.
- Demonstrate the ability to interpret primary and secondary sources and to compose a written argument of interpretation which uses them, as appropriate, for support.
- Explain the major social, cultural, political and economic developments in United States history, their causes and effects, and their historical significance.
- Analyze changes in the political, social, cultural and economic organization in the western world and explain their historical significance.
- Demonstrate an understanding of the major social, cultural, political and economic developments in non-western countries and their historical impact on the western world and global development.
- Exhibit an understanding of the art, literature, and major cultural traditions of people through the ages, as appropriate.

History Major (AA-T)*

*This program is pending state approval.

Please refer to the online version of the Catalog.
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 12A-12B. United States Women's History (3-3)
Lec-3  P/NP available
HIST 12A is not prerequisite to 12B
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. Pre-colonial 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 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 44. 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
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
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
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
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 recordings, 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
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
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
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
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
ADVIS: ENGL 96 OR PLACEMENT IN ENGL IA
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
ADVISE: ENGL 96 OR PLACEMENT IN ENGL IA
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

Interdisciplinary Studies
Office: Batmale 338
Phone Number: (415) 452-5343
Web Site: www.ccsf.edu/Departments/IDST

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 focused study 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>3</td>
</tr>
<tr>
<td>Elective coursework from the required list</td>
<td>3–5</td>
</tr>
</tbody>
</table>

Total | 15–17 |


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, Adulthood 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 intersectionality and interrelatedness of distinct forms of social oppression including Racism, Anti-Semitism/ Anti-Arabism, Classism, Sexism, Heterosexism, Ableism, Adulthood 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/Adulthood</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><strong>5</strong></td>
</tr>
</tbody>
</table>

**Leadership Skills for Youth Workers Certificate**

*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.

**Credit toward other Certificates.** In addition to counting toward the Trauma Prevention & Recovery Certificate, W0N 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: 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>
<tr>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>18</td>
</tr>
</tbody>
</table>

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; SOC 51; TH A 161; WOMN 20, 55

Announcement of Courses

Interdisciplinary Studies

Credit, Degree Applicable Courses:

IDST 3. Current Museum Studies (3)
Lec-3, field trips P/NP available

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 P/NP available

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 9 = BIO 32

IDST 10D. Prejudice (3)
Lec-3

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.
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
Advis: 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
Advis: 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 other 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/UC

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/UC

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, completinggrant reports, and best approaches to communication with funders.

IDST 70. Architecture and Diversity (3)
Lec-3, lab-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 80C. Diversity and Social Justice: Sexism
IDST 80D. Diversity and Social Justice: Heterosexism
IDST 80E. Diversity and Social Justice: Ableism
IDST 80F. Diversity and Social Justice: Class and Classism
IDST 80G. Diversity and Social Justice: Transphobia
IDST 81A. Diversity and Social Justice: Ageism and Adulthood (Age-Based Oppression)
IDST 81B. 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 pilgrimage 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
Advisie: ESL 150 or ENGL 92
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
Advisie: ESL 150 or ENGL 92
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
* See Graphic Communications section of the Catalog

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.

Learning Outcomes
Upon completion of this degree, students will be able to:

- Demonstrate fluency to interact in Italian in a normal and spontaneous fashion at an intermediate level.
- Understand and analyze publications and current media as well as contemporary prose.
- Compare and contract of geographical and cultural differences in the Italian-speaking world.
- Display an intermediate level of proficiency in speaking, understanding, reading and writing in Italian to perform successfully in upper division courses.

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.

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

- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc., as well as many radio or television programs on current affairs.
- Understand texts which consist mainly of high-frequency everyday or job-related language.
- Deal with most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.

Courses Required for the Certificate of Accomplishment in Italian

<table>
<thead>
<tr>
<th>Core 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>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

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 placement in ENGL 96 or ESL 170 or any City College or university foreign language course.

ITAL 1A+1B = ITAL 1

ITAL 2. Continuation of Elementary Italian (5)
Lec-5, lab-2 P/NP available
Prereq.: ITAL 1 or 1B or demonstration of ITAL 1B exit skills

ITAL 2A-2B. Continuation of Elementary Italian (3-3)
Lec-3, lab-2 P/NP available
Prereq.: For ITAL 2A: ITAL 1 or 1B or demonstration of ITAL 1B exit skills
Prereq.: For ITAL 2B: ITAL 2A or demonstration of ITAL 2A exit skills

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

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 Language

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.

Learning Outcomes
Upon completion of this degree, students will be able to:
• Demonstrate fluency to interact in Japanese in a normal and spontaneous fashion at an intermediate level.
• Understand and analyze publications as well as media.
• Display understanding of geography and cultural differences in the Japanese speaking world.
• Display an intermediate level of proficiency in speaking, understanding, reading and writing in Japanese to perform successfully in upper division course work. Display sensitivity to different styles of speech. (familiar and formal)

Courses Required for the Major in Japanese
Students must complete a minimum of 15 units chosen from

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPA 2 or 2A+2B Cont. of Elem Japanese</td>
<td>5 or 6</td>
</tr>
<tr>
<td>JAPA 3 or 3A+3B Intermediate Japanese</td>
<td>5 or 6</td>
</tr>
<tr>
<td>JAPA 4 or 4A+4B Cont. of Intermed Japanese</td>
<td>5 or 6</td>
</tr>
<tr>
<td>JAPA 16 Beginning Kanji for Reading and Writing</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>JAPA 1 or 1A+1B Elementary Japanese</td>
<td>5 or 6</td>
</tr>
<tr>
<td>JAPA 10B Beginning Conv. Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10C Intermediate Conv. Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10D Cont. of Intermed. Conv. Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 39-49 Japanese Culture and Civ.</td>
<td>3-3</td>
</tr>
</tbody>
</table>

Total Units: 18

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

- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc., as well as many radio or television programs.
- Understand texts which consist mainly of high-frequency everyday language.
- Deal with most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.

Courses Required for the Certificate of Accomplishment in Japanese
Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPA 1</td>
<td>Elementary Japanese</td>
<td>5</td>
</tr>
<tr>
<td>or JAPA 1A-1B</td>
<td>Elementary Japanese</td>
<td>3–3</td>
</tr>
<tr>
<td>JAPA 2</td>
<td>Continuation of Elementary Japanese</td>
<td>5</td>
</tr>
<tr>
<td>or JAPA 2A-2B</td>
<td>Cont of Elementary Japanese</td>
<td>3–3</td>
</tr>
<tr>
<td>JAPA 3</td>
<td>Intermediate Japanese</td>
<td>5</td>
</tr>
<tr>
<td>or JAPA 3A-3B</td>
<td>Intermediate Japanese</td>
<td>3–3</td>
</tr>
<tr>
<td>JAPA 4</td>
<td>Continuation of Intermediate Japanese</td>
<td>5</td>
</tr>
<tr>
<td>JAPA 4A-4B</td>
<td>Cont of Intermediate Japanese</td>
<td>3–3</td>
</tr>
<tr>
<td>JAPA 16</td>
<td>Beginning Kanji For Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPA 10A</td>
<td>Beginning Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10B</td>
<td>Cont of Beg Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10C</td>
<td>Intermediate Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 10D</td>
<td>Cont of Inter Conversational Japanese</td>
<td>3</td>
</tr>
<tr>
<td>JAPA 39</td>
<td>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 10A.

A placement test is available; call 239-3223.

Credit, Degree Applicable Courses:

**JAPA 1. Elementary Japanese (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 simple Japanese. CSU/UC

**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 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 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 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.
Second semester 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 Japanese. CSU

Not open to native speakers of Japanese
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 Campuse and Mission Center. 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>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>General Education/Graduation Requirements</td>
<td>3</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 35 Internet Journalism</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 37 Introduction to Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td>MMSP 110 Orientation to Multimedia</td>
<td>2</td>
</tr>
<tr>
<td>Additional Graduation Requirements</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>Additional Graduation Requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>46</td>
</tr>
</tbody>
</table>

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 adviser and become familiar with college wide course offerings.

- BCST 130 Radio Writing Workshop
- BCST 135 Podcasting
- CINE 20A/B Film History
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
The Editorial Management and Design certificate combines usage of editorial content with all aspects of creative design techniques. Students will be well versed in the creation of eye-catching page designs for newspapers and magazines.

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

• Collaborate with editors in creating newspaper and/or magazine typography.
• Assess and employ creative design techniques for newspapers and magazines.
• Collaborate with printers in the production of newspapers and magazines.
• Create a professional portfolio of published journalistic works.

Each course must be completed with a grade of “C” or higher.

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’s</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>PHOT 51 Beginning Photography</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 27 Newspaper Design and Pagination</td>
<td>2</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
</tr>
<tr>
<td>GRPH 36 Intermediate Graphic Design</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>Fourth Semester</td>
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</tr>
<tr>
<td>JOUR 24 Newspaper Laboratory</td>
<td>3</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>
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</tbody>
</table>

Total Units ...........................................43

On-line Research Certificate
The On-line Research certificate combines all aspects of information gathering and news/feature writing techniques. Students will be well versed in the creation of news and feature stories for publication in varying media outlets.

Each course must be completed with a grade of “C” or higher.

Learning Outcomes
Upon completion of the certificate, students will be able to:

• Report, write, and edit news and feature stories for various media outlets.
• Understand the changing skill demands of journalists in a modern society.
• Critically discuss career opportunities in the industry.
• Create a professional portfolio of published journalistic works.

Each course must be completed with a grade of “C” or higher.

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’s</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 35 Internet Journalism</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units ...........................................32

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
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
Prereq.: JOUR 21, 22, and GRPH 25
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
Advise: 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
Prereq.: GRPH 25
Deserts of the lab available
Advanced concepts of news gathering, interviewing and writing.
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 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
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 30. Selected Topics in Journalism (1-3)
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 30A. Selected Topics (1-3) CSU
JOUR 30B. Orientation to Careers in Journalism (1-3) CSU
JOUR 30C. Selected Topics in Journalism (1-3) CSU

JOUR 31. Internship Experience (2)
Conf-1, work-5
Prereq.: JOUR 24
Repeat: Maximum credit: 4 units
Supervised on-campus or off-campus employment in a branch of journalism or a closely allied field to which the student shows him/her self 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
Prereq.: JOUR 24
Advise: 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
Advise: 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
Advise: 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
Labor and Community Studies
Office: Evans
Phone Number: (415) 550-4459
Web Site: www.ccsf.edu/labr

Announcement of Curricula
Degree Curriculum
The Labor and Community Studies Department offers a two-year degree program in labor, community and environmental advocacy. It prepares students for transfer to similar programs at four-year colleges and universities and for careers in public interest work. It teaches students the contributions of working class people to American society, with a special focus on organized labor, immigrants, people of color, women and LGBT people. It gives a thorough grounding in the rights of employees, including union rights. It offers specialized instruction in the history and current status of movements for social change and includes classes in organizing, community economics, community arts and political advocacy. It combines class work with 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)

Courses Required for the Major in Labor and Community Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>LBCS 70B Who Built America? From Reconstruction to the Present</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 93A Workers &amp; Unions in Lit &amp; the Arts or LBCS 93D Wrk Tales: Labr Drama Workshop 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>
<tr>
<td>SPCH 1A Elements of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</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>3</td>
</tr>
<tr>
<td>Learning Internship</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Total Units</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, 49; 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 people-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.

**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 Wrkplce</td>
<td>3</td>
</tr>
<tr>
<td>LBCS 93A Workers &amp; Unions in Lit &amp; the Arts</td>
<td>3</td>
</tr>
<tr>
<td>or LBCS 93D Wrk Tales: Labr Drama Wrkplce</td>
<td>3</td>
</tr>
<tr>
<td>or LBCS 98A Beg Labor Heritage Chorus</td>
<td>3</td>
</tr>
<tr>
<td>and LBCS 98B Inter Labor Heritage Chorus</td>
<td>3</td>
</tr>
<tr>
<td>and LBCS 98C Adv Labor Heritage Chorus</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**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 Solidi in Amer</td>
<td>3</td>
</tr>
<tr>
<td>LBCS elective or elective from collaborating dept</td>
<td>3</td>
</tr>
<tr>
<td>WKEX 303 General Career Work Exp-Internship</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>9</strong></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

**Announcement of Courses**

**Credit, Degree Applicable Courses:**

- **LBCS 15. Latin American Workers in the Americas (3)**
  - Lec-3
  - **ADVISE:** 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/Latina 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 Wobbles 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/NO P 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 P/NP available
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.

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 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 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 The beginning study is an introduction to the songs that reflect workers’ 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 98B. Intermediate Labor Heritage Chorus (1) Lec-3, field trips P/NP available Prereq: LBCS 98A/MUS 48A 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 98C. Advanced Labor Heritage Chorus (1) Lec-3, field trips P/NP available Prereq: LBCS 98B/MUS 48B 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 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
A 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 104A. Work Tales-Beginning Performance Workshop (3)  
Lec-3, field trips  
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 104B. Work Tales-Intermediate Performance Workshop (3)  
Lec-3, field trips  
Prereq: LBCS 104 A  
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 life. Rehearsal and performance of original work. CSU

LBCS 104C. Work Tales-Advanced Performance Workshop (3)  
Lec-3, field trips  
Prereq.: LBCS 104B  
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

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. Upon completion of the major, students will be able to integrate writing, research and presentation skills necessary for the successful attainment of a university degree.

Learning Outcomes

1. To prepare students interested in a public, private or nonprofit careers in understanding the Latino/a experience in the state of California and the United States by earning an AA in Latin American and Latino/a Studies.
2. To prepare students in successfully transferring to a 4-year B.A. or B.S. programs in Latin American and/or Latino Studies, social sciences or humanities degrees.
3. To apply theories and methodologies in Latin American and Latino Studies to further training in upper division course work at a 4-year university.

Courses Required for the Major in Latin American & Latino/a Studies

Core Courses

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses</th>
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<tbody>
<tr>
<td>3</td>
<td>LALS 1 Latino/a Diaspora: The Impact of Latinos/as Living in the U.S.</td>
</tr>
</tbody>
</table>
### 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
  - P/NP available  
  - **Advising:** ENGL 92 or ESL 160 or placement in ENGL 93 or 94
  - 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/UC
  - LALS 9=LGBT 9

- **LALS 10. Latinas in the U.S./VOCES (3)**
  - Lec-3
  - P/NP available
  - The course will examine the lives and experiences 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. 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  
  - **Advising:** 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=POLS 13

- **LALS 14. Diego Rivera; Art and Social Change in Latin America (3)**
  - Lec-3
  - 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
AD VISE: 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
LALS 15 = LBCS 15

LALS 70. Individual Study in Latin American and Latino/a Studies (1-2-3)
Ind st-5,10,15; field trips P/NP available
Supervised group or individual study on topics and issues in Latin American and Latino/a Studies. CSU (UC upon review)

LALS 80-81-82. Special Topics and Issues in Latin American and Latino/a Studies (1-2-3)
Lec-1,2,3; field trips P/NP available
May not be offered every semester. Specific times, topics, and instructors will be announced in the time schedule, online, in classes, and through campus media.
The course provides an interdisciplinary approach to selected topics and issues in Latin American and Latino/a Studies. The focus of this course will vary depending on subject matter which can include art, music, religion, cultural geography, cultural history, ethnic diversity, education, media and health issues, immigration, and socio-political affairs. CSU

ANTH 11. Latin American Cultures and Societies (3)
Lec-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

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

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 pre-Colombian times to present. CSU/UC
HIST 18A. Survey of Latin American history, institutions, culture and art from pre-Colombian time to colonial time.
HIST 18B. Survey of Latin-American history from independence in the 19th century to the present.

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

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, drafting a floor plan, building an architectural model, using drafting tools and computers. Emphasis on hands-on skills. CSU

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

POLS 8. Political Problems of Latin Americans (3)
Lec-3 P/NP available
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 18. Government and Politics of Latin America (3)
Lec-3 P/NP available
The constitutional systems, political processes, and social problems of Latin American nations. CSU/UC

Spanish Language Courses: See Spanish in this section of the catalog.
Leadership Development Studies
Office: Student Union 205
Phone Number: (415) 239-3212
Web Site: www.ccsf.edu/stuaactiv

Announcement of Courses
Credit, Degree Applicable Courses:
S L 10. Student Government (1)
Work-2 P/NP only
Repeat: Maximum credit: 4 units
Training in the governance of student activities and representation/advocacy of student concerns. Learning to participate in and chair meetings, allocate funds, and implement agreed upon projects. Students will attend and participate in Associated Student Council meetings, Inter-Club Council meetings, and/or shared governance meetings to receive credit for this course. CSU

S L 12. Leadership Skills (3)
Lec-3 P/NP Available
Examination of the principles of leadership and their application to Associated Students Council, clubs, and activities. Specific leadership skills include chairing meetings, organizing events and campaigns, 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
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
Mission Statement
Our mission is to provide a supportive environment that promotes active learning and encourages collaboration among members of our diverse community.

Toward this goal, we assist our students in achieving their academic, vocational, and personal goals through our academic-support services that include: student-centered peer tutoring, college and career success courses, workshops and peer-collaborative small groups; an open-access computer lab; and a grant-funded writing project.

Learning Outcomes
Upon completion of courses in the Learning Assistance Discipline, students will be able to:

• Demonstrate personal responsibility for learning.
• Apply study strategies to academic courses.
• Examine and demonstrate critical analysis techniques.
• Assess personal growth and values and apply them to lifelong learning.
• Apply computer and technology skills to facilitate academic achievement.
• Recognize and appreciate diversity in themselves and others.

Credit, Degree Applicable Courses:
LERN 10. Introduction to Tutoring (1)
Lec-1 P/NP only
Prereq.: Acceptance into a CCSF Peer Tutoring Program
Designed for students who wish to tutor in the Learning Assistance Center, other programs, or classrooms.
An introduction to the theories and methods of effective tutoring. Tutoring responsibilities, lesson planning, study skills, questioning and modeling techniques, cultural awareness, subject area tutoring, and problem-solving. CSU

LERN 11. Advanced Tutoring (1)
Conf-1 P/NP only
Prereq.: Completion of or concurrent enrollment in LERN 10
Designed for students who wish to tutor in the Learning Assistance Center, other tutorial programs, or classrooms.
Individualized training in subject matter tutoring techniques as presented by the Learning Assistance Center Coordinator or an instructor of a specific course or program. There will be weekly problem-solving conferences with an instructor by arrangement. Minimum one hour per week of regularly scheduled, instructor supervised tutoring will be arranged for each student. CSU

LERN 12A-12B-12C. Tutoring Work Experience (1-2-3)
Conf-1, work-3, P/NP only
Prereq.: Completion/concurrent enrollment in LERN 10
Repeat: LERN 12A, 12B, and 12C combined, max. credit: 12 units.
Individualized training in subject matter tutoring techniques as presented by the Learning Assistance Center Coordinator or an instructor of a specific course or program. There will be weekly problem-solving conferences with instructor by arrangement. Students will also receive a minimum of 3 hours per week of regularly scheduled, instructor supervised, tutoring per unit. 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, 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
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 notetaking, textbook studying and test taking. CSU

LERN 52A-52B. Specific Study Strategies (0.5-0.5)
Lec-0.5 P/NP only
LERN 52A is not prerequisite to 52B.
This brief intensive course increases student success by introducing study strategies particular to a targeted academic discipline, or course or section within a discipline, or study skill area. CSU

LERN 53. Test Prep: Standardized Exams (0.5)
Lec-8 (total hrs) P/NP only
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 55. Successful Online Learning (1)
Lec-1 P/NP available
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. CSU

LERN 56. 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 57. 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 67. 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.
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>Units</th>
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<tbody>
<tr>
<td><strong>Required Courses for All Students (May Be Taken At Any Time):</strong></td>
<td></td>
</tr>
<tr>
<td>LGBT 5 Introduction to Lesbian, Gay, Bisexual and Transgender Studies</td>
<td>3</td>
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<tr>
<td>LGBT 15 Pre-Stonewall Writers and Cultures</td>
<td>3</td>
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<tr>
<td><strong>Required Courses in the Arts and Humanities (Minimum of 6 units, at least one course from Arts):</strong></td>
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<tr>
<td>LGBT 20 LGBT American Art and Culture</td>
<td>3</td>
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<tr>
<td>LGBT 25 The Lesbian and Gay Avant-Garde of the Fifties: Hot Art/Cold War</td>
<td>3</td>
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<tr>
<td>LGBT 55 Global LGBT Art and Culture</td>
<td>3</td>
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<tr>
<td>LGBT 77 Queer Creative Process</td>
<td>3</td>
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<tr>
<td><strong>Humanities:</strong></td>
<td></td>
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<tr>
<td>LGBT 11 The History of Homosexuality in Film</td>
<td>3</td>
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<tr>
<td>LGBT 12 Recent Queer Cinema</td>
<td>3</td>
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<tr>
<td>LGBT 18 Transgender Lives, Culture and Art</td>
<td>3</td>
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<tr>
<td>LGBT 75 Queer Cinema in the 1970’s</td>
<td>3</td>
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<tr>
<td>ENGL 55 LGBT Literature</td>
<td>3</td>
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<tr>
<td><strong>Required Courses in the Social and Behavioral Sciences (Minimum of 6 units):</strong></td>
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<tr>
<td>LALS/LGBT 9 The Latin American and Latina/o LGBT Experience</td>
<td>3</td>
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<tr>
<td>LGBT 10 LGBT Culture and Society</td>
<td>3</td>
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<tr>
<td>LGBT 30 Issues in the Lesbian Community</td>
<td>3</td>
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<tr>
<td>LGBT 40 LGBT Aging Issues</td>
<td>3</td>
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<tr>
<td>LGBT 50 LGBT Communities of Color in the United States</td>
<td>3</td>
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<tr>
<td>LGBT 60 Psychology of Sexual Minorities</td>
<td>3</td>
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<td>LGBT 70 AIDS in America</td>
<td>3</td>
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<tr>
<td>ANTH 20 LGBT Anthropology</td>
<td>3</td>
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<tr>
<td>HIST 45 LGBT American History</td>
<td>3</td>
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<tr>
<td><strong>Elective Courses (Minimum of 3 units; may include Arts &amp; Humanities and Social &amp; Behavioral courses listed above, if not used to meet minimum requirements):</strong></td>
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<tr>
<td>LGBT 21 Issues in Lesbian Relationships</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 24 Gay Male Relationships</td>
<td>3</td>
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<tr>
<td>BCST 103 Mass Media and Society</td>
<td>3</td>
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<tr>
<td>CDEV 76 Supporting LGBT Families in ECE</td>
<td>3</td>
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</tbody>
</table>

Announcement of Courses

Credit, Degree Applicable Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>LGBT 5. Introduction to Lesbian, Bisexual, Gay and Transgender Studies</td>
<td>3</td>
</tr>
<tr>
<td>Lec-3, field trips</td>
<td>P/NP Available</td>
</tr>
</tbody>
</table>

This introductory course examines a broad range of contemporary gay, lesbian, bisexual and transgender issues in various contexts including bio-medical, 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/UC

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 film-
makers’ 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 alanguage for discussing the way cinema both challenges and reinforces societal values. CSU/UC
Formerly GLST 12

LGBT 15. From Greece to Stonewall: Queer Writers, Lives, and Worlds (3)
Lec-3 P/NP available
Examines LGBT writers, lives, friendship networks, and salon cultures from ancient Greece and Rome and pre-Colombian Indigenous cultures of the Americas through pre-World War II Europe and 1950s America. Explores expatriates and travelers, American writers and artists. 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 contributions 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 homophobic 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  
ADVISE: 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  
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 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

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  
ADVISE: ESL 150 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, field trips  
P/NP available  
ADVISE: ESL 150 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 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 on 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
Upon completion of this emphasis, students will be able to:

- 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).

### 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 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.

**Learning Outcomes**

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

- Demonstrate an understanding of aesthetic concepts and incorporate that understanding in creating value judgments of, and contributions to, cultural activities and/or artistic expressions.
- Evaluate and interpret the ways in which people through the ages and in different cultures have expressed their experiences and interpretations of the world around them through artistic and cultural creation.
- 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).

#### Noncredit Courses:

LGBT 4800. Techniques for Abuse 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.

#### Arts:

- African American Studies 51, 55
- Architecture 29A, 31A, 31B, 32, 34, 102
- Asian Studies 11
- Cinema 18, 21, 23A, 23B
- Dance 30, 32, 100A, 107B, 107C
- Design 101, 105, 110
- Fashion 23, 55
- Graphic Communications 21
- Interdisciplinary Studies 70
- Interior Design 13B
- 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
- Asian 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, 14, 23, 27A, 27B, 29, 30, 36, 37, 38, 42, 44, 45, 46, 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
- 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, 2, 3, 3A, 3B, 5, 5S, 6, 6A, 6B, 7, 10A, 10B, 10C, 10D, 31, 31A, 31B, 32, 41;
Speech 5, 37;
Women’s Studies 10, 20

Note: See online catalog for an updated list of courses.

**Communication Emphasis (AA)**

**Associate in Arts 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.

**Learning Outcomes**

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

- Use language as a tool for logical thought, clear and precise expression, and critical evaluation of communication

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.

**Learning Outcomes**

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

- Demonstrate an understanding of the investigative tools of science.
- Describe the basic definitions and fundamental theories of an introductory natural science.
- Express and manipulate quantitative information in verbal, numeric, graphic, and symbolic form

Students pursuing this area of emphasis must take at least one course in science and at least one course in mathematics. Students should meet with a counselor to select appropriate courses.

**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;

**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).

**Learning Outcomes**

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

- Think critically about ways people have acted in response to their societies
- Evaluate how individuals, societies, and social subgroups operate
- Apply the principles, methodologies, value systems, ethics, and thought processes employed in human inquiry

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, 3i;
Anthropology 2, 3, 3AC, 4, 8, 11, 12, 15, 20, 25;
Asian American Studies 8, 27, 35, 40, 42, 61, 62, 63;
Asian Studies 20
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, 97, 22i;
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;
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)

The curricula in Library Information Technology meets the need 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 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, graphic communications, or computer networking and communications technologies.

Because employment in the field is competitive, students should assume entry level library work early in their studies. Those who complete the curriculum may find advantages in civil-service with federal, state, county, and city agencies. The department is currently pursuing course coordination for support staff certification through the ALA-APA.
Electives (6 units minimum)
LIBR 53 Information Resource Services ................. 2
LIBR 57 Internet Research Strategies .................... 2
LIBR 58A Legal Resources .................................. 1
LIBR 58B Medical Resources & Libraries ................ 2
LIBR 58C Business Resources & Libraries ............... 2
LIBR 59 Library Work Experience ....................... 3

Total Units .................................................. 18

**Recommended additional coursework** may be taken for skills development in WDPR, MABS, CNET, GRPH, and CSCI; or for sophistication in the arts, social sciences and humanities.

**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**
The certificate in Library Information Technology is designed for those already holding academic degrees (associate of higher) who seek 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 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, graphic communications, or computer networking and communications technologies.

Because employment in the field is competitive, students should assume entry level library work early in their studies. Those who complete the curriculum may find advantages in civil-service with federal, state, county, and city agencies. The department is currently pursuing course coordination for support staff certification through the ALA-APA.

Students must achieve a C average in their coursework, pass grades will be considered where applicable. Courses may transfer, but half of all work should be completed at City College of San Francisco. All coursework must be taken within a ten year period.

**Learning Outcomes**
Upon completion students will be able to:

- Demonstrate competent understanding of the acquisition, description, storage, retrieval and use of library information products and services
- Analyze problems of information access encountered by minorities, by the information poor, by the under-served and by special populations within the context of US and state constitutional and statutory law, and the professional ethics of the American Library Association
- Demonstrate technical and practical skills in the use of library resources vended or distributed worldwide, in practical applications and in library employment
- Critique the quality of information products and services, and to evaluate them both for agency purchase and for practical or academic use by self and others
- Demonstrate understanding of library administrative organization, management and supervision; of collegiality, team-building and communication; of job description, employment qualification; of hiring practices for special libraries, non-profits and civil service

**Courses Required for the Certificate of Accomplishment in Library Information Technology**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
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<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>
<tr>
<td>Electives (5 units minimum)</td>
<td></td>
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<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>
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<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>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

**Recommended additional coursework** may be taken for skills development in WDPR, MABS, CNET, GRPH, and CSCI; or for sophistication in the arts, social sciences and humanities.

**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**
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
Advis: MABS 38
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
Advis: MABS 38
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: Maximum credit: 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
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.

Library Information Skills
Office: Rosenberg 506
Phone Number: (415) 452-5548

Learning Outcomes
Upon completion of courses in Library Information Skills, students will be able to:

- Demonstrate information competency and critical thinking skills through their ability to effectively acquire, interpret, critically evaluate and use information for oral, written and visual expression, with some understanding of its ethical and legal ramifications.

Credit, Degree Applicable Courses:
LIS 10. Use of Information Resources (1)
Lec-1 P/NP available
Advis: ESL 150 or placement in 160
Students gain understanding of the variety of information research tools and resources available in libraries and on the web, and how to effectively search for, evaluate, and cite information sources. Ethical and legal uses of information are also covered. CSU/UC

Noncredit Courses:
LIS 1000. Information Research Skills (15 hrs)
Course consists of seven online and/or in-class workshops that develop and improve such information competency/research skills as conducting effective online searches using a variety of online search tools, evaluating results for credible and authoritative information and citing sources using a standardized citation format.

Life Science
See Biological Sciences

Mathematics
Office: Batmale 756
Phone Number: (415) 239-3478
Web Site: www.ccsf.edu/math

Announcement of Curricula

Learning Outcomes
Upon completion of courses in Mathematics, students will be able to:

- Construct, transform, and interrelate symbolic, graphical, numerical and verbal representations of mathematical structures and patterns.
- Read, interpret, communicate, and critique mathematical explanations.
- Apply appropriate mathematical modeling methods and tools to solve problems in a clear and organized way.

Mathematics Major (AS-T)*

*This program is pending state approval.
Please refer to the online version of the Catalog.
Announcement of Courses

For "Business Mathematics" see "Business".

A student new to the City College Mathematics Program should first take the appropriate placement exam(s), then consult with a mathematics advisor or counselor before enrolling in a mathematics course.

To enroll in a particular mathematics course, a student must have satisfied the prerequisites for that course.

Credit, Non-Degree Applicable Courses:
MATH E1. Basic Mathematics (Individualized) (2)
Conf-2
P/NP only
Not open for credit for students who have achieved a satisfactory score on the City College placement examination in mathematics or who have passed MATH E3 or EX.
Arithmetic with emphasis on applications. Includes operations with whole numbers, fractions, and decimals; representation of numbers on the number line; solving simple equations; applications involving geometry (length, area, perimeter), unit analysis, rates, ratios, average, percent, increase and decrease, and fractional parts of quantities. Formerly MATH E.

MATH E3. Basic Mathematics (Lecture/Group) (3)
Lec-3, conf-2
P/NP only
Not open for credit for students who have achieved a satisfactory score on the City College placement examination in mathematics or who have passed MATH E1 or E.
Arithmetic with an emphasis on applications. Includes operations with whole numbers, fractions, and decimals; representation of numbers on the number line; solving simple equations; applications involving geometry (length, area, perimeter), unit analysis, rates, ratios, average, percent, increase and decrease, and fractional parts of quantities. Formerly MATH EX.

MATH S. Elementary Algebra Workshop (2)
Conf-3
P/NP Only
Coreq: MATH 40 or 840
Support course for students enrolled in MATH 40. Practice math problems, practice tests, practice quizzes for MATH 40. Math study skills. Collaborative learning emphasized.

MATH U. Intermediate Algebra Workshop (2)
Conf-3
P/NP only
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 45. 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. Ratios, 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
Advis.: 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
Advisement: 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.
Real functions and their graphs; polynomial, rational, and radical functions; one-to-one and inverse functions; exponential and logarithmic functions with applications; trigonometric functions and their graphs, trigonometric identities and equations, inverse trigonometric functions; conic sections; matrices and linear systems; topics in discrete mathematics. UC/CSU

The Mathematics Department offers two calculus sequences:
(1) The sequence MATH 110A-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 +MATH110B)

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, mathematical induction, relations and functions, recursion, combinatorics, elementary number theory, trees and graphs, analysis of algorithms, algebraic structures. Emphasis on topics of relevance to mathematics and computer science majors. UC/CSU

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,
Upon completion of courses in Music, students will be able to:

- Demonstrate performance skills in instrumental music, voice, piano, and/or guitar.
- Appraise how musical works are composed through the study of foundational elements: melody, harmony, rhythm, form, instrumentation and texture.
- Assess the aesthetic values in music and the roles music plays in the aesthetics of various time periods, styles and world regimes.
- Evaluate how music has evolved throughout history, and in specific styles and world regions.
- Choose and rate the career paths in music and the expectations of each field.

**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, 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 P/NP available
**Advise:** MUS 1A: MUS 4 or demonstration of exit skills

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 P/NP available
**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 P/NP available
**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 P/NP available
**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 P/NP available
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 P/NP available

**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

**Enrollment Limitations on Physical Education and Visual or Performing Arts Courses**
Per title 5 Section 55041, effective Fall 2013, students may not enroll more than four times in “active participatory courses that are related in content” in the areas of physical education or visual and performing arts, which includes art, dance, music, and theatre. This limitation applies even if a student receives a substandard grade or “W” during one or more of the enrollments in such a course or if the student petitions for repetition due to extenuating circumstances.

Music courses that are related in content are grouped together in “families” of courses below. The families are indicated by their headings, e.g., Applied Training: Guitar, Ensemble: Chorale, etc. For the most up-to-date listing of courses and families, refer to the online catalog, www.ccsf.edu/catalog.

**Instrumental and Vocal Training**

**Applied Training: Guitar**
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**
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).

**Applied Training: Cello**
MUS 7C. Cello (1)
Lec-3, field trips P/NP available
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

**Applied Training: Percussion**
MUS 7P. Percussion (1)
Lec-3, field trips P/NP available
The study and technique of playing various percussion instruments. CSU/UC

**Applied Training: Brass**
MUS 7T. Brass (1)
Lec-3, field trips P/NP available

**Advise: MUS 4 OR DEMONSTRATION OF EXIT SKILLS**
Basic brass techniques for intermediate or advanced players. Embouchure problems, breathing methods, and tone production. CSU/UC

**Applied Training: Violin/Viola**
MUS 7V. Violin and Viola (1)
Lec-3, field trips P/NP available

**Advise: MUS 5A: MUS 3A OR DEMONSTRATION OF EXIT SKILLS**
Violin or viola training for beginning, intermediate, and advanced players. CSU/UC

**Applied Training: Woodwinds**
MUS 7W. Woodwind (1)
Lec-3, field trips P/NP available
The study and techniques of playing various woodwind instruments. CSU/UC

**Applied Training: Jazz Piano**
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**
A study of basic jazz, rock, gospel, blues, and folk piano techniques. CSU/UC

**Applied Training: Piano**
MUS 9A. Beginning Piano (2)
Lec-3, lab-1, field trips P/NP available
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**
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**
The development of harmonic keyboard skills through the study and practice of chord structures, progressions, and sight reading techniques. CSU/UC

**Applied Training: Voice**
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
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
Performance Courses

**Ensemble: Guitar**
MUS 11. Guitar Workshop (1)
Lec-3, field trips  P/NP available
*Advise: MUS 6A or demonstration of exit skills*
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

**Ensemble: Large Traditional Choirs**
MUS 12. Choir (1)
Lec-3, field trips  P/NP available
Study and performance of fine choral music, sacred and secular, from all periods of music history. CSU/UC

**MUS 48A. Beginning Labor Heritage Chorus (1)**
Lec-3, field trips  P/NP available
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 48B. Intermediate Labor Heritage Chorus (1)**
Lec-3, field trips  P/NP available
Prereq.: LBCS 98A
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 48C. Advanced Labor Heritage Chorus (1)**
Lec-3, field trips  P/NP available
Prereq.: LBCS 98B/MUS 48B
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

**Ensemble: Chorale**
MUS 14. Chorale (1)
Lec-3, field trips  P/NP available
Study and performance of choral music for small ensembles. Public performances both on and off campus. CSU/UC

**Ensemble: Large Traditional Instrumental**
MUS 15. Orchestra (1)
Lec-3, field trips  P/NP available
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

**Ensemble: Woodwind**
MUS 17. Woodwind Ensemble (1)
Lec-3, field trips  P/NP available
Study and performance of woodwind ensemble techniques of all stylistic periods. CSU/UC

**Ensemble: Brass**
MUS 18. Brass Ensemble (1)
Lec-3, field trips  P/NP available
Study and performance of brass ensemble techniques of all stylistic periods. CSU/UC

**Ensemble: Piano**
MUS 19. Piano Ensemble and Repertoire (1)
Lec-3, field trips  P/NP available
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

**Ensemble: Strings**
MUS 20. String Ensemble (1)
Lec-3, field trips  P/NP available
An exploration of techniques and ensemble literature appropriate for intermediate and advanced violinists, violoncellists, and string bass players. Performances may be scheduled. CSU/UC

Music Surveys

**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.*
Detailed study of selected larger musical forms such as the orchestra, 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
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
Prereq.: MUS 30
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**

*Ensemble: Guitar*

*Ensemble: African Drumming*

MUS 41. African Drumming Ensemble (1)
Lec-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

*Ensemble: Jazz, Pop, Gospel Choir*

MUS 42. Jazz, Pop, Gospel Choir (1)
Lec-3, field trips P/NP available
Study and performance of popular, gospel, or jazz and swing choir arrangements with rhythm section. CSU/UC

*Ensemble: Musical Theatre*

MUS 44. Music Theatre Workshop (3)
Lec-6, field trips P/NP available
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

*Ensemble: Early Music*

MUS 45. Early Music Performance Workshop (2)
Lec-3, lab-1, field trips P/NP available
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
**Ensemble: Jazz/Rock Bands**

**MUS 46. Stage Band (1)**

Lec-3, field trips | P/NP available
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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
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Rehearsal band for music of all popular styles. Performances at various athletic events. CSU/UC

**MUS 50. Music Rehearsal and Performance (1)**

Lec-3 | P/NP available
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Coreq.: Enrollment in a music instrumental training or performance course
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](http://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 background 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)

#### 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 experience 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 accommodated. 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](http://www.ccsf.edu/rn)

### 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 limitations, 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 requirements for enrollment in the Nursing Program/ courses. Please see website: [www.ccsf.edu/rn](http://www.ccsf.edu/rn)

1. **a.** 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.

   **b.** Must have an overall GPA of 2.5 in science 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. a. If you have taken English 1A and Algebra 840 or higher at CCSF, you must submit official transcript with your application which includes your final grade in English 1A and Algebra 840 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 860 or higher. Submit test result with nursing application.
c. Test waivers for English and Algebra are only for nursing applicants who have satisfied CCSF placement test requirements through external sources such as other colleges attended or (SAT, AP) scores. Bring proof (test score or transcripts) to the Matriculation office, Conlan Hall, Rm. 204 to obtain the waiver. This waiver 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 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 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. The 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.

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.

Registered Nursing Major (AS)

Learning Outcomes

Upon completion of this degree, students will be able to:
1. Pass the NCLEX-RN exam
2. Qualify for entry level positions of R.N. in health facilities and agencies
   - Identify as a member of the health team in rendering holistic care to patients, and provide support to patients’ families;
   - Utilize the Nursing process to formulate a plan of care and provide problem oriented individualized patient care;
   - Demonstrate the ability to prioritize nursing care by application of Maslow's hierarchy of needs theory.
   - Apply the principles of effective communication in the delivery of health care to the patient and with other health care professionals
   - Apply physical or technical skills that promote patients’ health or welfare;
   - Provide health education to individual patients, families, and the community at large;
   - Demonstrate competencies in basic health care informatics necessary to deliver safe and effective nursing care.
   - Exercise critical thinking skills when applying the nursing process to patient care.
3. Deliver effective nursing care to the patient by utilizing their acquired skills in problem solving and leadership
   - Apply principles of health care ethics to guide professional conduct in the provision of care to patients, families, and community;
   - Identify the cultural or ethnic influences on patients and formulate nursing care according to the patients’ values;
   - Identify as a health advocate and participate in activities to benefit patients, families and the community at large;
   - Demonstrate the ability to supervise and delegate patient care based on the skill level of the care provider;
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>
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<tr>
<td>Option 1: Generic Admission:</td>
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<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>
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<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>
<tr>
<td>B. Additional Courses Required By The Board Of Registered Nursing (9 Units)</td>
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</tr>
<tr>
<td>PSYC 1 Gen Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1 Intro Sociology</td>
<td></td>
</tr>
<tr>
<td>or ANTH 3 Intro to Social and Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>or ANTH 3AC Intro to Cultural Anthropology: Focus on American Cultures</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1A Elements of f Public Speaking</td>
<td></td>
</tr>
<tr>
<td>or SPCH 4 Group Communication</td>
<td></td>
</tr>
<tr>
<td>or SPCH 11 Basic Public Speaking</td>
<td></td>
</tr>
<tr>
<td>or SPCH 12 Fundamentals of Oral Communication</td>
<td></td>
</tr>
<tr>
<td>or SPCH 20 Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>or ESL 79 Advanced Speaking &amp; Pronunciation</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>45-52</td>
</tr>
</tbody>
</table>

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).

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 drugs used in the management of cardiovascular, respiratory, gastrointestinal, neurological, urinary, reproductive, psychiatric and peripheral nervous system disorders. Emphasis on nursing implications of drugs, i.e. administration, pharmacological effects, clinical uses and adverse effects. CSU

NURS 50B. Pharmacology in Nursing Part II (2)
Lec-32 (total hrs)
Coreq.: NURS 50 and 50L
Focuses on specific drugs used in the management of cardiovascular, respiratory, gastrointestinal, neurological, urinary, reproductive, psychiatric and peripheral nervous system disorders. Emphasis on nursing implications of drugs, i.e. administration, pharmacological effects, clinical uses and adverse effects. CSU

NURS 50L. Nursing Skills Laboratory (1)
Lab-3
P/NP only
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
Advise: 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 50L

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-17 (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)
Advise:
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
To Be Admitted To The Program Applicants Must:

1. Complete of ENGL L or ESL 140 or placement in ESL 150.
2. A physical examination
3. Immunizations: Hepatitis B, Rubella, Varicella, Mumps, and T.B., TDAP
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.

Learning Outcomes

Upon completion of the Home Health Aide/Nurse Assistant Certificate, students will be able to:

- Demonstrate the fundamental nursing skills instructed in the State approved nursing assistant/home health aide training program.
- Use effective communication skills as appropriate while delivering care to clients and families in various nursing practice settings, and in collaboration with the health care team.

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></td>
</tr>
<tr>
<td>VOCN 25 Nurse Assistant/Acute Care</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>12</strong></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:
   - Anatomy and Physiology course 3 units (e.g., VOCN 41E or ANAT 14, or ANAT 25, and PHYS 1 or 12)

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.

Learning Outcomes

Upon successful completion of Vocational Nursing Certificate, students will be able to:

- Use effective communication skills as appropriate while delivering care to patients and families in various nursing practice settings, and in collaboration with the health care team.
- Demonstrate safe and competent nursing care based on scientific principles to patients of any age and cultural background in a variety of work settings under the direction of the registered nurse or physician.
• Apply the Nursing Process to individualize patient care in any health care setting.
• Demonstrate professionalism in their practice of Vocational Nursing.

Courses Required for the Certificate of Achievement in Vocational Nursing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>First Semester</td>
</tr>
<tr>
<td>VOCN 41A Fundamentals of Voc Nursin</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>
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</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>
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</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>
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<tr>
<td>VOCN 43E Adv Medical/Surgical Skills Lab</td>
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<tr>
<td>VOCN 43F Child Growth and Development</td>
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<td>Total Units</td>
<td>44.5</td>
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</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 longterm care  
Physical strength and flexibility sufficient to provide restorative activities for patients Completion of ENGL L or ESL 140; or placement in ESL 150  
A two-day Restorative Nurse 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 nursing 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.
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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 33E.

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 VOCN 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 34F.

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 9195. Home Health Aide-Clinical/Special (50 hrs)
Advise: ESLN 3800
Clinical application of theory prepares the individual to render home care to the adult and geriatric client. Designed for re-entry students 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.

Learning Outcomes
Upon completion of courses in the Older Adults discipline, students will be able to:

• Exhibit improved written and/or oral expression and critical thinking skills;
• Demonstrate skills that improve mental and/or physical health to maintain or increase quality of life and to stay active;
• Demonstrate skills to become active participants in current computer technology;
• Identify aptitudes in the Arts, understand arts-related concepts, and demonstrate skills that improve technique, mental acuity, and creativity to complete projects.

Noncredit Courses:

General Classes
OLAD 7000. Encore 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 Tai 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 Tai 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 Tai 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)
This course develops formal artistic skills such as color, composition, form, harmony, texture and contrast through physical and tactile skills such as painting, weaving, and sculpture. Completed projects are two or three-dimensional using a variety of materials and mediums.

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)
In this hands on course, students will learn skills related to stitchery and textile arts including patchwork, quilting, applique, trapunto, and embroidery stitches. Beginning students will complete several small projects to learn the basic techniques. Advanced students will complete personal or group projects.

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 7404. 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

Learning Outcomes

Upon completion of courses in Philippine Studies, students will be able to:

- Identify and apply basic research methods in the study of Philippine society and culture.
- Critically analyze the various historical, social, and cultural factors that have influenced Philippine society and culture.
- Evaluate the impact of historical and contemporary social movements such as colonization and immigration on the situation and conditions of various Philippine regions and groups.
- Apply knowledge and skills towards cross-cultural competence and appreciation of one’s and others’ cultures.
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 minority communities 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.*
Examination of race as a social construction, attitude formation, social psychological principles, forms of racism and discrimination, privilege
and social power, psychological response to racism, and racial identity development. Psycho-historical analysis of the experiences and contributions of African Americans, Asian Americans, Latino(a) Americans, and Native Americans. 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.
Examination of race as a social construction, attitude formation, social psychological principles, forms of racism and discrimination, privilege and social power, psychological response to racism, and racial identity development. Psycho-historical analysis of the experiences and contributions of African Americans, Asian Americans, Latino(a) Americans, and Native Americans. Completion of a research project. UC/CSU

Philosophy
Office: Batmale 656
Phone Number: (415) 239-3330
Web Site: www.ccsf.edu/socialsci

Learning Outcomes
Upon completion of courses in Philosophy, students will be able to:

- Demonstrate skills of conceptual analysis and argument comprehension, construction, and evaluation.
- Apply conceptual analysis skills to the fundamental problems involved in building reliable theoretical knowledge or formulating sound ethical judgments.
- Analyze and demonstrate an understanding of the science of logic, with emphasis on the concept of proof and symbolic systems for calculating truth-value relationships.
- Actively examine theories of the philosophical-scientific tradition from its ancient beginnings to its contemporary developments.

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
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 programs in the country, with over two
dozens 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 uni-
versity 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 photo-
  graphic 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 pro-
gram 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 Portrait                                   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 pho-
tography’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
Professional photographers present and discuss their work in both
technical and aesthetic terms. This is a unique opportunity for pho-
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
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
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
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
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
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
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 80. Outdoor and Ambient Light Photography (3)
Lec-3, lab-1, field trips
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 81A. Intermediate Black and White Photography (3)
Lec-3, lab-3
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 81B. Advanced Black and White Darkroom Techniques (4)
Lec-3, lab-3, field trips
Prereq.: PHOT 81A and DSGN 101 or demonstration of exit skills
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 82. Zone System Techniques (3)
Lec-3, lab-3
Prereq.: PHOT 81A and DSGN 101 or demonstration of exit skills
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 83. View Camera Techniques (2)
Lec-2, lab-1
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  
Prereq.: PHOT 51 or demonstration of exit skills  
*Advise: 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  
Prereq.: PHOT 55, 85A, and DSGN 101 or demonstration of exit skills  
*Advise: 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  
Prereq.: PHOT 81A and DSGN 101 or demonstration of exit skills  
*Advise: PHOT 53*

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  
*Advise: PHOT 55*

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  
Prereq.: PHOT 85A and DSGN 101 or demonstration of exit skills  
*Advise: 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  
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  
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  
Prereq.: PHOT 95A or demonstration of exit skills  

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  
Prereq.: AS required for topic  

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, and/or lab-2, 3, 6, field trips  
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 101A. Hand Tinting Photographs  
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  
Prereq.: PHOT 85A or demonstration of exit skills  
*Advise: PHOT 55, 83*

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**

Office: Wellness113  
Phone Number: (415) 239-3411  
Web Site: www.ccsf.edu/pe

**Learning Outcomes**

**Overall**

Students participating in Dance, Activity, Kinesiology/theory and/or Intercollegiate Courses will be able to:

- **Activity**
  - Identify and analyze the importance of health concerns, safety and proper use of equipment while performing activity based movements.
  - Identify and demonstrate the appropriate sequence of physical movements to successfully perform an activity/sport.

- **Theory/Kinesiology**
  - Integrate the knowledge/content in consideration of an Associate's Degree in Kinesiology, Certificates in Physical Education, Coaching, Yoga or Strength and Conditioning, strengthen career opportunities in the health, fitness, and wellness fields, and synthesize community and global awareness through life long learning.

**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**

Upon completion of the Associate of Art Degree in Dance, the student will be able to:

- Demonstrate skills in critical thinking, creative and innovative thinking, adaptive competence, problem solving, observation, evaluation, and be able to apply these skills to other aspects of life.
- Synthesize the knowledge taught in the major in order to meet academic and industry standards in the following areas: dance areas: dance technique, aesthetic sensibility, performance technique, and dance composition.
- Synthesize theoretical and aesthetic components of the dance degree program and integrate them to meet both practical and

**PHOT 102B. Documentary/News Photography (2)**

Lec-2, lab-1, field trips  
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  
Prereq.: PHOT 85B and either 81B or 95A or demonstration of exit skills

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-3, field trips  
Prereq.: DSGN 101 and PHOT 81B or 85B or 90 or 93 or 95A

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  
Prereq.: PHOT 85B and either 81B or 95A or demonstration of exit skills

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

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**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.

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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**

Upon completion of the Associate of Art Degree in Dance, the student will be able to:

- Demonstrate skills in critical thinking, creative and innovative thinking, adaptive competence, problem solving, observation, evaluation, and be able to apply these skills to other aspects of life.
- Synthesize the knowledge taught in the major in order to meet academic and industry standards in the following areas: dance areas: dance technique, aesthetic sensibility, performance technique, and dance composition.
- Synthesize theoretical and aesthetic components of the dance degree program and integrate them to meet both practical and
philosophical applications to dance as a performing art: dance history, the cultural context of dance, anatomy and physiology, nutrition, and the role of dance as a community asset.

- Demonstrate a professional attitude and ethics and may elect to use units earned in this course of study to meet requirements for transfer to a 4-year educational institution.

Prerequisites. DANC 120A, 125A

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.

Courses Required for the Major in Dance - Performance Art

<table>
<thead>
<tr>
<th>Courses</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>or DANC 125B Intermediate Modern Dance</td>
<td>1-2</td>
</tr>
<tr>
<td>or DANC 125C Advanced Modern Dance</td>
<td>1</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>
</tbody>
</table>

| Second Semester | |
| DANC 30 Dance Hist. – Dance in Cultural Context | 3 |
| or NUTR 12 Introduction to Nutrition | 3 |
| DANC 128A Intermediate Ballet | 1 |
| or DANC 128C Advanced Ballet | 1 |
| DANC 135B Intermediate Tap Dance | 1 |
| DANC 132B Intermediate African-Haitian Dance | 1 |

| Third Semester | |
| DANC 32 Black Traditions in American Dance | 3 |
| DANC 126B Intensive Modern Dance | 2 |
| or DANC 130A Beginning Jazz Dance | 1 |
| or DANC 130B Intermediate Jazz Dance | 1 |
| DANC 137A Beginning Hip-Hop Dance | 1 |
| or DANC 137B Intermediate Hip-Hop Dance | 1 |
| DANC 140A Beginning European Folk Dance | 1 |
| or DANC 145A Beginning Ballroom Dance | 1 |
| or DANC 150A Beginning Swing Dance | 1 |
| or DANC 160A Beginning Argentine Tango | 1 |

| Fourth Semester | |
| ANAT 14 Intro to Human Anatomy & Physiology | 4 |
| or DANC 130B Intermediate Jazz Dance | 1 |
| or DANC 130C Advanced Jazz Dance | 1 |
| DANC 121B Intermediate Ballet | 2 |
| DANC 101B Dance Performance Production | 2 |
| DANC 102B Repertory Dance Company | 2 |
| Total Units | 33-35 |

Certificate Curricula

Dance

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)

Option 1 - Classical Dance Performance Certificate

Learning Outcomes

Upon completion of the Classical Dance Performance Certificate, students will be able to:

- Demonstrate a foundation in technical dance and movement skills.
- 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.
- Demonstrate knowledge of correct body mechanics.
- Compose short dance studies.
- Apply knowledge of cultural backgrounds and their influence on different style of dance.

Courses Required for the Certificate of Accomplishment in Classical Dance Performance

Courses in Workshop and Theory (8 units required)

Required Courses:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 100A Dance Composition</td>
<td>3</td>
</tr>
<tr>
<td>DANC 30 Dance History – Dance in Cultural Context</td>
<td>3</td>
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Required 2 units selected from:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 34A Dance Conditioning</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 101A Dance Performance Production</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 101B Dance Performance Production</td>
<td>2</td>
</tr>
<tr>
<td>or DANC 102A Dance Repertory</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 102B Dance Repertory</td>
<td>2</td>
</tr>
</tbody>
</table>

Courses in Technique Electives (6 units-4 at Intermediate/Advanced level)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 120A Ballet</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 120B Intermediate Ballet</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 120C Advanced Ballet</td>
<td>2</td>
</tr>
<tr>
<td>or DANC 121B Intensive Ballet</td>
<td>2</td>
</tr>
<tr>
<td>or DANC 125A Beginning Modern Dance</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 125B Intermediate Modern Dance</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 125C Advanced Modern Dance</td>
<td>2</td>
</tr>
<tr>
<td>or DANC 126B Intensive Modern Dance</td>
<td>2</td>
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</tbody>
</table>

Electives (3 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 37 Feldenkras for Dance</td>
<td>1</td>
</tr>
<tr>
<td>DANC 122 Beginning Pointe Technique</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 127 Dance Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 4 Music Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>or NUTR 52 Elementary Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>or TH A 30 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>or TH A 150 Beginning Acting</td>
<td>3</td>
</tr>
<tr>
<td>or TH A 200 Theatre Production</td>
<td>3</td>
</tr>
<tr>
<td>or Technique electives from Options 1, 2, 3, or 4</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Total Units | 17 |
Option 2 - African Heritage Performance Certificate

Learning Outcomes
Upon completion of the African Heritage Performance Certificate, students will be able to:
- Demonstrate a foundation in technical dance and movement skills.
- Demonstrate 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.
- Demonstrate knowledge of correct body mechanics.
- Compose short dance studies.
- Apply knowledge of cultural backgrounds and their influence on different style of dance.

Courses Required for the Certificate of Accomplishment in African Heritage Performance
Courses in Workshop and Theory (9 units required)
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 130A Beginning Jazz Dance ................................ 1
DANC 130B Intermediate Jazz Dance .............................. 1
DANC 130C Advanced Jazz Dance .................................. 2
DANC 132A Beginning African Haitian Dance .................. 1
DANC 132B Intermediate African Haitian Dance .............. 1
DANC 135A Beginning Tap Dance .................................. 1
DANC 135B Intermediate Tap Dance ............................. 1
DANC 136B Intensive Tap Dance .................................. 2
DANC 137A Beginning Hip Hop Dance ............................ 1
DANC 137B Intermediate Hip Hop Dance ......................... 1
Electives (3 units)
AFAM From Funk to Hip Hop .................................... 1
DANC 37 Feldenkrais for Dance ................................. 1
HUM 48 African American Music, Art, Lit .................... 1
MUS 23 Jazz Hist, Musical Trad of the Afr Am ............... 1
MUS 21 Traditional African Music ............................... 1
Technique electives from Options 1, 2, 3, or 4 ............ 1-3
Total Units ......................................................... 17

Option 3 - Social and Folk Dance Performance Certificate

Learning Outcomes
Upon completion of the Social and Folk Dance Performance Certificate, students will be able to:
- Demonstrate a foundation in technical dance and movement skills.
- 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.
- Demonstrate knowledge of correct body mechanics.
- Create short dance studies.
- Apply knowledge of cultural backgrounds and their influence on different style of dance.

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 I, 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

Learning Outcomes
Upon completion of the Dance Aerobics and Fitness Certificate, students will be able to:
- Demonstrate a foundation in technical dance and movement skills.
- Demonstrate 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.
- Demonstrate knowledge of correct body mechanics.
- Create short dance studies.
- Apply knowledge of cultural backgrounds and their influence on different style of dance.
study including dance technique, choreography, performance technique, body alignment, dance history, and nutrition.

- Demonstrate knowledge of correct body mechanics.
- Compose short dance studies.
- Apply knowledge of cultural backgrounds and their influence on different style of dance

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 ........................................... 1
- 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 ............................................................. 3
- P E 14 Women’s Fitness and Aging ................................... 3
- P E 222 Introduction to Feldenkrais ................................. 1

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.

Learning Outcomes

Upon completion of the Certificate of Accomplishment in Yoga Instruction, students will be able to:

- Integrate the knowledge/content of the course of study to meet international industry-standard requirements to teach beginning level yoga in a variety of settings, thereby strengthening career opportunities in the health, fitness, and wellness fields.
- Identify and demonstrate the appropriate sequence of physical movements to successfully perform yoga poses.
- Identify and analyze the importance of health concerns, safety, and proper use of equipment while performing and teaching yoga based movements.

- Synthesize knowledge in order to work independently in creating, and teaching, safe and efficient yoga lesson plans to a variety of students.
- Display a value of diversity and ethical practice as a yoga teacher.

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 CCSF. 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 219A or demonstration of PE 219A exit skills.

Courses Required for the Certification of Accomplishment in Yoga Instructor

Courses | Units
--- | ---
First Semester
- P E 219B Intermediate Yoga ........................................ 1
- ONE course from the following
  - ANAT 14 Introduction to Human Anatomy and Physiology
  - or ANAT 25 General Human Anatomy
  - or PHYS 12 Introduction to Human Physiology .................. 4

Second Semester
- P E 220 Intensive Yoga ............................................. 2
- P E 218 Restorative Yoga ............................................ 1
- ONE course from the following
  - DANC 34 Dance Conditioning
  - or DANC 37 Feldenkrais for Dance
  - or P E 214 Weight Training
  - or P E 216 Body Sculpting
  - or P E 217 Stretch and Flexibility
  - or P E 222 Introduction to Feldenkrais ............................ 2

Third Semester
- P E 21 Teaching Movement ......................................... 3
- P E 221 Yoga Movement ................................................... 1
- WKEX 805 Work Experience ......................................... 1

Fourth Semester
- WKEX 806 Work Experience ......................................... 2

Total Units ............................................................. 17
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
ADVIS: 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
ADVIS: EXPERIENCE IN FOLK AND BALLROOM DANCE RECOMMENDED
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 171. Cheer/Dance Squad (2)
Lec-1, lab-4, field trips  
P/NP available
Designed to provide the student with information and training in order to create, execute, and perform dance/cheer moves in a competitive/performance setting. CSU/UC
Formerly P E 537

Enrollment Limitations on Physical Education and Visual or Performing Arts Courses

Per title 5 Section 55041, effective Fall 2013, students may not enroll more than four times in "active participatory courses that are related in content" in the areas of physical education or visual or performing arts, which includes art, dance, music, and theatre. This limitation applies even if a student receives a substandard grade or "W" during one or more of the enrollments in such a course or if the students petition for repetition due to extenuating circumstances.

Dance courses that are related in content are grouped together in "families" of courses below. The families are indicated by their headings, e.g., Integrative Movement, Dance Composition, etc. For the most up-to-date listing of courses and families, refer to the online catalog, www.ccsf.edu/catalog.

Integrative Movement: Mind/Body Approach to Improving Quality of Movement and Conditioning for Dance
DANC 34A. Dance Conditioning (1)
Lab-2  
P/NP available
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
ADVIS: DANC 120A or 125A or 130A or 132A or 137A
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

Dance Composition: Choreographic Tools to Create Dance
DANC 100A. Dance Composition (3)
Lab-10  
P/NP available
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 13

DANC 127. Dance Improvisation (1)
Lab-2  
P/NP available
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 128. Contact Improvisation (1)
Lab-2  
P/NP available
Contact Improvisation is a non-traditional approach to dance. Emphasis will be placed on improvisational movement techniques that integrate weight release, weight sharing, partnering and various choreographic techniques. Students will work independently, in duets, and in larger group configurations. CSU

P E 221. Yoga Movement (1)  
P/NP available
ADVIS: P E 219A
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

Performance: Training and Rehearsing to Perform in Public
DANC 101A-101B-101C. Dance Performance Production (1-2-3)
Lab-2,5,7  
P/NP only
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
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

Ballet: Classical Dance Form That Defies Gravity
DANC 120A. Beginning Ballet (1)
Lab-2 P/NP available
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
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
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
A continuation of the theory and practice of classical ballet with an emphasis on advanced 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
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

Modern: Contemporary American Dance Form Utilizing Gravity
DANC 125A-125B-125C. Modern Dance (1-1-2)
Lab-2, 4 P/NP available
Advise For DANC 125B: DANC 125A
Advise For DANC 125C: DANC 125B
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 126B. Intensive Modern Dance (2)
Lab-4 P/NP available
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 626B

Jazz Dance: American Dance Form Utilizing African Rhythms and Body Isolations
DANC 130A-130B-130C. Jazz Dance (1-1-1)
Lab-2 P/NP available
Beginning, intermediate, and advanced jazz dance techniques, patterns, routines, choreography, and improvisation. CSU/UC
Formerly P E 523A, B, C

African-Haitian Dance: Haitian Traditional Ritual Dances
DANC 132A-132B-132C. African-Haitian Dance (1-1-1)
Lab-2 P/NP available
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

Tap Dance: Musical Theater Dance Form Originating in Vaudeville
DANC 135A. Beginning Tap Dance (1)
Lab-2 P/NP available
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
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
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

Hip-Hop Dance: Modern Vernacular Street Dance
DANC 137A-137B. Hip-Hop Dance (1)
Lab-2
P/NP available
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

Folk Dance: Traditional Country Dances From Different Cultures
DANC 107A-107B-107C. Folk Dance Production (1-2-3)
Lab-2, 4, 6, field trips
P/NP only
Courses may be taken in any sequence.
Students will have the opportunity to learn and perform intermediateadvanced level folk dance choreographies in 3-5 on and off campus venues each semester in traditional style costumes. CSU/UC
Formerly P E 5A, B, C

DANC 140A. Beginning European Folk Dance (1)
Lab-2
P/NP available
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 141A or demonstration of beginning exit skills
Intermediate level of various European Folk dances. Partner adn 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
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
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
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

Ballroom Dance: A Survey of Dances Done in Informal Social Settings
DANC 145A-145B. Ballroom Dance (1-1)
Lab-2
P/NP available
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, foxtrot, 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
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
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

Dance Sport: Competitive Dance Forms Emphasizing Specific Techniques of International and American Styles
Lab-3,6,9
P/NP only
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 147A. Beginning International Ballroom Dance (1)
Lab-2
P/NP available
International ballroom dance with emphasis on step patterns from both the Standard and Latin Styles. Standard dances included are
Waltz, Foxtrot, American Tango, Viennese Waltz 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/UC

DANC 147B. Intermediate International Ballroom Dance (1)  
Lab-2  
P/NP available  
Intermediate level ballroom dance with emphasis on step patterns from the bronze and silver level International Standard and Latin syllabus. Standard dances included are Waltz, Foxtrot, American Tango, Viennese Waltz and Quickstep. Latin dances are Samba, Cha-Cha, Paso Doble, Jive and Rumba. CSU

DANC 148A. Beginning Smooth Ballroom Dance (1)  
Lab-2  
P/NP available  
Beginning ballroom dance with emphasis on step patterns from the bronze level American Smooth syllabus. The class will include a selection from Waltz, Foxtrot, American Tango and Viennese Waltz. CSU

DANC 148B. Intermediate Smooth Ballroom Dance (1)  
Lab-2  
P/NP available  
Intermediate ballroom dance with emphasis on step patterns from the bronze and silver level American Smooth syllabus. The class will include a selection from Waltz, Foxtrot, American Tango and Viennese Waltz. CSU

Swing: Early American Dance Form Associated with Swing Music of the 1930's, 40's and 50's

DANC 109A-109B. Swing Dance Production (1-2)  
Lab-3,6  
P/NP only  
Prereq.: DANC 150C or equivalent

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 150A. Beginning Swing Dance (1)  
Lab-2  
P/NP available  
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  
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  
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

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

Latin American Dance: Survey of Informal Social Dances From the Caribbean, Central and South America

DANC 110A-110B. Salsa Dance Production (1-2)  
Lab-2,4  
P/NP only  
Prereq.: DANC 155B

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  
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 155A-155B-155C. Latin American Dance (1-1)  
Lab-2  
P/NP available  
Prereq.: DANC 155B

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  
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  
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
Physical Education

Credit, Degree Applicable Courses:
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

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

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 20=HOEC 108

P E 21. Teaching Movement (3)
Lec-3, field trips P/NP available
Prereq.: ENGL 92 or ESL 160 or placement in ENGL 93; and previous PE or DANC coursework or demonstration of exit skills

Coreq.: Any CCSF PE or DANC activity course (except PE 200 or 202)

Advis: ANAT 14 or 25 or PHYS 1 or 12

Teaching Movement examines how humans of different ages learn movement skills and how class participants, as future movement teachers, can facilitate the acquisition of movement skills in a wide variety of movement forms. Also recommended for students who want to understand and improve their movement skills. 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 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
Enrollment Limitations on Physical Education and Visual or Performing Arts Courses

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Physical Education courses that are related in content are grouped together in “families” of courses below. The families are indicated by their headings, e.g., Public Safety, Fitness Center, etc. For the most up-to-date listing of courses and families, refer to the online catalog, www.ccsf.edu/catalog.

Physical Education for Special Needs
P E 2. Corrective Physical Education (1)
Lab-2 P/NP available
An adaptive exercise class designed to meet specific rehabilitative needs for people with chronic or temporary disabilities, especially those with muscular/skeletal and/or mild/moderate neurological conditions. Body awareness and conditioning techniques are presented to improve body alignment, increase muscular strength and flexibility, and release muscular tension. CSU/UC
Formerly P E 512

P E 15. Workplace Ergonomics (2)
Lec-2, field trips P/NP only
Overview of anatomy and body mechanics and how design and placement of commonly used objects influence productivity and safety. Students will learn to assess and develop a workspace based on sound ergonomic principles, working within individual budgetary constraints, to help prevent common workplace injuries. CSU

P E 218. Senior and Restorative Yoga (1)
Lab-2 P/NP available
A gentle approach to Hatha Yoga that includes a representative sample of beginning and restorative yoga postures, breathings, 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 222. Introduction to Feldenkrais” (1)
Lab-2 P/NP available
Advise: ESL 130 or placement in ESL 140
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

DANC 175. Basic Movement (2)
Lec-1, lab-3 P/NP available
Basic Movement defines general movement vocabulary and employs movement studies that develop skills needed for successful participation in physical activities, particularly dance. CSU/UC
Formerly P E 4

Public Safety
P E 29. Firefighting and Public Safety Conditioning (2)
Lec-1, lab-2
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 250. Lifeguard Training (1)
Lab-2 P/NP available
Prereq: P E 540C or demonstration of P E 251C EXIT SKILLS
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 525

Fitness Center
P E 200A-200B-200C. Fitness Center Super Circuit (0.5-1-2)
Lab-4,2,4 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

Physical Fitness
P E 204A-204B-204C. Physical Fitness (1-1-1)
Lab-2 P/NP available
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
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
Physical Education and Dance

Walking for Wellness
P E 206. Walking for Fitness (1)
Lab-2 P/NP available
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

Aerobics
DANC 170. Dance Aerobics (1)
Lab-2 P/NP available
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

P E 208A-208B-208C. Aerobic Fitness (1-1-1)
Lab-2 P/NP available
Beginning, intermediate and advanced techniques with emphasis on cardiovascular endurance utilizing physical activity which increase 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
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
Boxercise is a conditioning fitness class utilizing aerobic/boxing techniques with an emphasis on cardiovascular endurance and muscular endurance. CSU/UC
Formerly P E 579

Competitive Lifting
P E 212. Olympic Weightlifting (1)
Lab-2 P/NP available
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

Strength Training
P E 214. Weight Training (1)
Lab-2 P/NP available
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 216. Body Sculpting (1)
Lab-2 P/NP available
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 215A-215B. Strength and Circuit Training (1-1)
Lab-2 P/NP available
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

Stretching and Flexibility
P E 217. Stretching and Flexibility Development (1)
Lab-2 P/NP available
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

Yoga
P E 219A. Beginning Yoga (1)
Lab-2 P/NP available
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
Intermediate yoga will build upon skills learned in beginning yoga. Emphasis will be placed on a representative sample of intermediate level postures and 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
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
Archery
P E 230A-230B. Archery (1-1)
Lab-2 P/NP available
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

Badminton
P E 231A-231B. Badminton (1-1)
Lab-2 P/NP available
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

Baseball/Softball
P E 232A-232B-232C. Baseball (1-1-1)
Lab-2 P/NP available
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 239. Softball (1)
Lab-2 P/NP available
Fundamentals of elementary softball; emphasis on development of team offense and defense. CSU/UC
Formerly P E 536

Basketball
P E 233A-233B-233C. Basketball (1-1-1)
Lab-2 P/NP available
Prereq: P E 233B: P E 233A; P E 233C: P E 233B
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

Fencing
P E 234A-234B-234C. Fencing (1-1-1)
Lab-2 P/NP available
Beginning, intermediate, and advanced fencing; emphasis on bouting, 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 237. Saber Fencing (1)
Lab-2 P/NP available
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

Football
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
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

Golf
P E 236A-236B-236C. Golf (1-1-1)
Lab-2 P/NP available
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

Soccer
P E 238A-238B-238C. Soccer (1-1-1)
Lab-2 P/NP available
Prereq: P E. 238B: PE 238A; PE. 238C: P E. 238B
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

Tennis
P E 240A-240B-240C. Tennis (1-1-1)
Lab-2 P/NP available
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 240A. Beginning
P E 240B. Intermediate
P E 240C. Advanced

Volleyball
P E 242A-242B-242C. Volleyball (1-1-1)
Lab-2 P/NP available
Prereq: P E. 242B: PE 242A; P E. 242C: P E. 242B
Beginning, intermediate, and advanced volleyball. Emphasis on passing, serving, spiking, and blocking. CSU/UC
Formerly P E 545A, B, C
Physical Education and Dance

Aquatics Swim Development
P E 251A-251B-251C. Swimming (1-1-1)
Lab - 2  P/NP available
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

Aquatics Exercise
P E 252. Water Aerobics (1)
Lab - 2  P/NP available
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

Aquatics Fitness Swimming
P E 253A-253B-253C. Swim Conditioning (.5-1-2)
Lab - 16, 32, 64 total hrs  P/NP only
Prereq.: PE 251B or satisfactory demonstration of specific swimming skills
This course is for students who wish to workout and improve techniques of swimming strokes. Class utilizes a tailored workout comprised of various drills, aerobic and anaerobic swim sets and exercises to demonstrate the value of swim fundamentals and training, making swimming easier by becoming more efficient. CSU/UC

Judo
P E 271A-271B-271C. Judo (1-1-1)
Lab - 2  P/NP available
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 exercises). CSU/UC
Formerly P E 524A, B, C

Jujitsu
P E 274. Jujitsu (1)
Lab - 2  P/NP available
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

Taekwondo
P E 276A. Beginning Taekwondo (1)
Lab - 2  P/NP available
Instruction and practice in the beginning skills of Taekwondo, the competitive sport skills and rules. Course will include basic kicks, blocks, and punches with an emphasis on self-defense, as well as a presentation in the history, philosophy, terminology, and etiquette. CSU/UC
Formerly P E 580A

Self Defense
P E 277. Self Defense For Women (1)
Lab - 2  P/NP available
Learn physical, psychological and preventive skills to prevent assault and reduce your risk to personal safety. Emphasis on the development of personal power and self-esteem. Physical defense skills are learned and mastered. CSU/UC
Formerly P E 550

P E 278. Personal Defense and Safety Awareness (1)
Lab - 2  P/NP available
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
Formerly P E 566

Physical Education Athletics

Learning Outcomes

Overall
Students participating in Dance, Activity, Kinesiology/theory and/or Intercollegiate Courses will be able to:

- Apply knowledge from a Physical Education/Dance class towards achieving academic endeavors such as an Associate's Degree or transfer to baccalaureate institution, enhance career opportunities, and become further engaged in the college and community's social fabric through lifelong learning and cultural enrichment.

Intercollegiate Athletics
- Identify and demonstrate good sportsmanship, communicative and social interaction skills including the understanding of leadership and contributing roles while participating and/or competing on an intercollegiate team.

Activity
- Identify and analyze the importance of health concerns, safety and proper use of equipment while performing activity based movements.
- Identify and demonstrate the appropriate sequence of physical movements to successfully perform an activity/sport.

Theory/Kinesiology
- Integrate the knowledge/content in consideration of an Associate's Degree in Kinesiology, Certificates in Physical Education, Coaching, Yoga or Strength and Conditioning, strengthen career opportunities in the health, fitness, and wellness fields, and synthesize community and global awareness through life long learning.
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 461

PE A 62. Swimming
Formerly P E 453

PE A 63. Tennis sp
Formerly P E 461

PE A 65. Basketball fa, sp
Formerly P E 455

PE A 66. Track and Field sp
Formerly P E 457

PE A 67. Softball sp
Formerly P E 458

PE A 68. Volleyball fa
Formerly P E 459

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 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 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, and 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

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 some 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 some 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 (PHYC 4A
+ 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 4B, PHYC 4BL
Coreq.: PHYC 4CL
Advise: 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 4B, PHYC 4BL
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 and PHYC 4CL
Coreq.: PHYC 4B; PHYC 4B; PHYC 4CL; PHYC 4C; PHYC 4CL
Lab-3
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

PHYC 10. Conceptual Physics (3)
Lec-3
A conceptual, almost non-mathematical, introduction to physics with
demonstrations. Topics from mechanics, properties of matter, heat,
sound, electricity, magnetism, light, nuclear physics, and relativity.
Emphasis on topics that lead to a better understanding of our technologi-
social and physical environment. CSU/UC

PHYC 10L. Conceptual Physics Laboratory (1)
Lab-3
Required for students enrolled in the curriculum in RADL.
Prereq.: completion/concurrent enrollment in PHYC 10
Laboratory experiments involving basic physics concepts. Emphasis on
concept development, data handling, and laboratory skills. CSU/UC

PHYC 41. Preparatory Physics (3)
Lec-3
Prereq.: MATH 90 or 92; and 95; or placement in MATH 110A
Advise: Concurrent enrollment in MATH 110A
A single semester course emphasizing concepts and problem solving in
kinematics, dynamics, energy, momentum, rotational motion and elec-
tricity. This course is intended to prepare students to take a trigonometry-based physics
course and may also serve as preparation for a calculus based physics
course. UC/CSU

PHYC 40. Elementary Physics (3)
Lec-3
Prereq.: completion/concurrent enrollment in MATH 95
A single semester course introducing concepts and algebra based analysis
of such topics as kinematics, dynamics, energy, and momentum.
This course prepares students to take a trigonometry-based physics
course and may also serve as preparation for a calculus based physics
course. UC/CSU

Announcement of Courses
Credit, Degree Applicable Course:
P SC 11. Physical Science (3)
Lec-3, conf-1
Advise: MATH 40 or 840 or placement in MATH 60 or 860
Not open to students who have completed a college-level course in phys-
ics, physical science, chemistry, geology, or astronomy with a final grade
of C or higher
An overview of the physical sciences: physics, chemistry, Earth sci-
ence and astronomy. Content is taught at a conceptual level using
basic math such as ratios, square roots, scientific notation, graph inter-
pretation, slope and simple algebra. Intended for non science majors
looking for a broad understanding of the physical universe. UC/CSU

P SC 11L. Physical Science Laboratory (1)
Lab-3
Coreq.: P SC 11
Physical Science laboratory interrogates concepts from physics, chemis-
try, and earth science and astronomy. Data handling, critical thinking,
and laboratory skills are emphasized. CSU/UC
Formerly P SC 12A

P SC 88. Physical Science for Automotive Technology (4)
Lec-3, lab-3, field trips
Physical science course integrating concepts from physics, chemistry,
and environmental science into current and future trends in automo-
tive technology such as automotive design, diagnostics, alternative
fuels, batteries and electrical systems. CSU
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 or Pass.

Learning Outcomes

- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc.
- Understand texts which consist mainly of high-frequency everyday or job-related language.
- Understand and respond to most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.

Courses Required for the Certificate of Accomplishment in Pilipino

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PIL 1 Elementary Pilipino</td>
<td>5</td>
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<tr>
<td>PIL 2 Continuation of Elementary Pilipino</td>
<td>5</td>
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Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PIL 10A, 10B, 10C Conversational Pilipino</td>
<td>3–3–3</td>
</tr>
<tr>
<td>PIL 39A, 39B Philippine Lit in Translation</td>
<td>3–3</td>
</tr>
</tbody>
</table>

Total Units: 16

Announcement of Courses

Credit, Degree Applicable Courses:

PIL 1. Elementary Pilipino (5)
Lec-5, lab-2
P/NP available

PIL 2. Continuation of Elementary Pilipino (5)
Lec-5, lab-2
P/NP available

PIL 10A-10B-10C. Conversational Pilipino (3-3-3)
Lec-3, lab-2
P/NP available

PIL 39A-39B. Pilipino Literature in Translation (3-3)
Lec-3
P/NP available

ADVICE: ELIGIBLE FOR ENGL IA
Reading and discussion of important works of Philippine literature in English translation. CSU/UC

PIL 39A. Philippine Literature to 1940
PIL 39B. Philippine Literature from 1940 to the Present

Political Science

Learning Outcomes

Upon completion of courses in Political Science, students will be able to:

- Demonstrate an awareness and understanding of American political principles.
- Analyze and critique current political topics and issues.
- Demonstrate an understanding of the forms and processes of political participation at the local, state, national and/or international levels.
- Evaluate the structure and functions of a variety of other nation's political systems and the international system.
- Analyze different political theories, including liberalism and conservatism.
- Analyze the historical and philosophical foundations of the United States and California constitutions.
- Evaluate information utilizing appropriate social sciences methodologies and approaches, including the use of primary sources.
- Examine complex issues and develop, evaluate and test solutions and hypotheses.

Announcement of Courses

Credit, Degree Applicable Courses:

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; 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 of 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  P/NP available
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  P/NP available
Advise: 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  P/NP available
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  P/NP available
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  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 8. Political Problems of Latin Americans (3)
Lec-3  P/NP available
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  P/NP available
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  P/NP available
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 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. The interplay of ethnic and racial factors in the political process is systematically examined and analyzed in the context of at least three of the following groups: African Americans, Asian Americans, Chicano/Latino, Native Americans, and European Americans. Meets the American Cultures requirement at UC Berkeley. CSU/UC

POLS 13. Latin American and Latino/a Cross-Border Social Movements (3)
Lec-3  P/NP available
Advise: 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

POLS 18. Government and Politics of Latin America (3)
Lec-3  P/NP available
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
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

Psychology
Office: Batmale 354
Phone Number: (415) 239-3433
Web Site: www.ccsf.edu/behavior

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. It is STRONGLY advised that potential majors meet with the Behavioral Sciences Chair to discuss educational goals, course options and transfer issues.

Learning Outcomes

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

- Contrast the major contemporary theoretical perspectives in psychology
- Identify research methods and statistical methods appropriate to psychology
- Recognize the interactions between biological and environmental forces and interpret how these relationships help explain cognition, affect and behavior
- Analyze the major subfields of psychology and assess their contributions to the understanding of cognition, affect and behavior

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>
<tr>
<td>PSYC 2 Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5 Statistics for Behavioral Sciences or MATH 80 Probability and Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

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     |
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
PRIORLY FOR PSYCHOLOGY MAJORS, RELATED MAJORS, AND STUDENTS INTERESTED IN THE SCIENTIFIC METHOD
Introduction to experimental method and design in behavioral science. 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 sampling 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 understanding 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 10. Abnormal Psychology (3)
Lec-3  P/NP available
ADVIS: PSYC 1
An examination of the major psychological disorders as described in the latest edition of The Diagnostic and Statistical Manual of the American Psychiatric Association. Diagnostic criteria will be described and explicated, and research, theory and clinical practice will be reviewed to improve understanding of the etiology and most promising treatments of the various disorders.
CSU/UC

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 develops. 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
Examination of psychological theories and research on the development 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
ADVIS: PSYC 1, ENGL 93 or Placement in ENGL 96
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. UC/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.
Examination of race as a social construction, attitude formation, social psychological principles, forms of racism and discrimination, privilege and social power, psychological response to racism, and racial identity development. Psycho-historical analysis of the experiences and contributions of African Americans, Asian Americans, Latino(a) Americans, and Native Americans. 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.
Examination of race as a social construction, attitude formation, social psychological principles, forms of racism and discrimination, privilege and social power, psychological response to racism, and racial identity development. Psycho-historical analysis of the experiences and contributions of African Americans, Asian Americans, Latino(a) Americans, and Native Americans. Completion of a research project. UC/CSU

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
ADVIS: PSYC 1
Introduction to the psychology of children from conception through adolescence. Examination of research and theory, emphasizing how child development is enhanced or restricted. Emotional, social, and cognitive development are discussed, including the role of heredity and the environment. Practical information is given for parents, teachers, counselors, and other concerned adults. UC/CSU
Diagnostic Medical Imaging

Mission Statement, Goals and Student Learning Outcomes

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.

Upon graduation from the City College of San Francisco Diagnostic Medical Imaging Program, students will have demonstrated proficiency with the following goals and outcomes:

Goal 1. Communication-Students will display effective communication skills as appropriate to a given situation or encounter.
   - Communicate effectively with patients, clinical staff, instructors, and fellow students.
   - Display competence in verbal and written communication.
   - Respond appropriately to requests from patients, clinical staff, instructors, and fellow students.

Goal 2. Critical Thinking/Problem Solving-Students will demonstrate evidence of critical thinking and problem solving methods as appropriate to a given situation or encounter.
   - Describe/demonstrate how to produce a diagnostic quality radiograph when one or more exposure parameters are changed.
   - Describe/demonstrate appropriate care and imaging techniques of the injured or critically ill patient.
   - Evaluate a radiograph for diagnostic quality.
   - Demonstrate appropriate patient care skills for patients of different age groups and cultural backgrounds.

Goal 3. Clinical Performance-Students will effectively apply technical expertise, patient care skills, and radiation protection measures to ensure optimal outcomes when conducting diagnostic radiologic examinations.
   - Demonstrate safe and effective radiation protection measures.
   - Deliver efficient and safe general patient care skills.
   - Produce diagnostic quality radiographs.
   - Demonstrate safe operation of the radiographic equipment.
   - Perform radiographic procedures efficiently.

Goal 4. Professional Development-Students 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.

Goal 5. Program Effectiveness-Graduates will be prepared for 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.
   - Employers indicate satisfaction with the performance of CCSF graduates.

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 Public Health.

The program maintains affiliation with multiple San Francisco hospital radiology departments for the purpose of clinical education.

For more information, please visit 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 or 840 (Elementary Algebra) or placement in MATH 60 or 860
   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) for more details about this requirement.

3. Completion of Math 60 or MATH 860 and ENGL 1A are strongly recommended prior to entering the program.

4. Have at least a 2.0 cumulative grade point average in college work previously completed.

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 City College of San Francisco Mathematics/Algebra and English placement examinations, or the equivalent thereof.

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).

Health Clearance Requirements. In addition to academic requirements and orientation, enrollment in the Diagnostic Medical Imaging Program is subject to evidence of immunizations per the San Francisco Health Department. 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.

Program Orientation. Upon admission, students are required to attend two scheduled program orientations.

Instruction in the Major. The course of study includes instruction in radiologic theory and techniques, pathology, patient care, radiation protection, anatomy, physics and physiology. The curriculum is 30 months in length, including two academic years, with a summer session between the first and second semesters, and ending with a clinical internship of 32 weeks. Clinical education in diagnostic medical imaging is taught in the radiology departments of the hospitals affiliated with the College in offering the program. Members of the professional and technical staffs of these departments serve as instructors.

Upon satisfactory completion of the Program and college graduation requirements, the student is awarded the Associate in Science degree. 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 final grade lower than C (75%) in any of the required Diagnostic Medical Imaging courses, or a grade point average below 2.0 will be 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. 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. Students who have been disqualified from continuing in the curriculum because they received a final grade lower than C and who desire to be readmitted must submit a new application to the Radiologic Sciences Department Review Committee. As Part of the procedure, the Committee will meet with the applicant prior to making a decision. The Committee will base its recommendations on the current policy of the Diagnostic Medical Imaging Program, which is available from the department office.

Associate in Science Degree. The course of study is designed so that students may satisfy the requirements for graduation from the College. Students who have completed the required courses in the curriculum, including the 32-week clinical internship, with final grades of C or higher, will receive A.S. degree with a Major in Diagnostic Medical Imaging.

State and National Certification. State certification is required for employment in California. Graduates are eligible for and must take 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.

Sequence of Courses. The following sequence of courses is for students starting in the fall. Sequence changes for students starting in the spring. Contact the Radiologic Technology office for further information.

Diagnostic Medical Imaging Major (AS)

<table>
<thead>
<tr>
<th>Course Required for the Major in Diagnostic Medical Imaging</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</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 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>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Second Semester</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 Psych or Applied Psy</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Summer Session</td>
<td></td>
</tr>
<tr>
<td>DMI 62 (seven weeks) Clinical Educ in DMI</td>
<td>2</td>
</tr>
<tr>
<td>Third Semester</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>Additional graduation requirements</td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</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>Additional graduation requirements (All General Education graduation requirements should be completed by the end of this semester.)</td>
<td></td>
</tr>
<tr>
<td>Internship</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>Total Units</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. Preliminary 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  
Practical 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 transverse sections on ultrasound 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

Mission Statement, Goals and Student Learning Outcomes
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.

Upon graduation from the City College of San Francisco Radiation Therapy Technology Program, students will have demonstrated proficiency with the following goals and outcomes:

Goal 1. Students will be competent in the delivery of Radiation Therapy treatments & simulation.
- Students will offer appropriate radiation, patient and radiation safety in a manner that is safe and effective.
- Students will demonstrate technical skills and knowledge to deliver a prescribed course of treatment adhering to acceptable departmental, institutional, governmental and professional standards.

Goal 2. Students will utilize critical thinking skills and apply knowledge in a changing clinical environment.
- Students will demonstrate the ability to develop and execute daily clinical practice plans while responding to new situations.
- Students will assess and manage radiation induced patient side effects and complications as part of the interdisciplinary management strategy.
- Students will recognize emergency situations and respond appropriately.

Goal 3. Students will effectively communicate using oral and written communication.
- Students will demonstrate the ability to use written communication skills.
- Students will demonstrate the ability to use appropriate oral communication skills.

Goal 4. Students will exhibit professionalism in their practice of radiation therapy.
- Students will employ a professional work ethic including reliability, initiative and attitudes congruent with the profession's standards and ethics.
- Students will function effectively applying concepts of teamwork.
- Students will demonstrate professional characteristics necessary to promote lifelong learning in radiation therapy and patient care.

Announcement of Curricula

Degree Curricula
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 San Francisco 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 or 840 (Elementary Algebra) or placement in MATH 60 or 860
   b.) CHEM 32 or CHEM 40
   c.) PHYC 10 and 10L
   d.) ENGL 93 or 94 (or placement in ENGL 96); or ESL 160 (or placement in ESL 170)
   e.) ANAT 25
   f.) PHYS 12

2. Have at least a 2.0 cumulative grade point average in college work previously completed.

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. Take 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. For application deadline, contact Radiologic Sciences Department. (Applications are available at www.ccsf.edu/dmi)

**Health Clearance Requirements.** In addition to academic requirements and orientation, enrollment in the Radiation Therapy Technology Program is subject to evidence of immunizations per the San Francisco Health Department. In addition, 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.

**Instruction in the Major.** The Option in Radiation Therapy Technology is 24 months in length. The course of study includes instruction in the following: radiation therapy techniques, radiobiology, oncology, treatment planning, radiation protection, anatomy, physics, patient care, film processing and exposure factors and simulation. Clinical education in Radiation Therapy Technology 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 staffs of those 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.

**Program Orientation.** Upon admission, students are required to attend two scheduled program orientations.

**Drug Screening.** Drug screening is required by the clinical affiliate. The student is responsible for the cost.

**Scholarship Requirements and Basis for Disqualification.** A final grade lower than C (75%) in any of the required Radiation Therapy Technology courses or a grade point average below 2.0 will be cause for dismissal 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.** Students who have been disqualified from continuing in the curriculum because they received a final grade lower than C and who desire to be readmitted must submit a new application to the Radiologic Sciences Department Review Committee. As part of the procedure, the Committee will meet with the applicant prior to making a decision. The Committee will base its recommendations on the current policy of the Radiation Therapy Technology Program, which is available from the department office.

**Associate in Science Degree.** The course of study is designed so that students will satisfy the requirements for graduation from the College. Students who satisfy these requirements, complete the required courses in the curriculum with final grades of "C" or higher, and complete the internship, receive an A.S. degree with a major in Radiation Therapy Technology.

**State and National Certification.** Graduates of the Major in Radiation Therapy Technology are eligible to apply for the certification examination administered by the American Registry of Radiologic Technologists, State license is also required for employment in California.

**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>Course 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 Radiology</td>
<td>2</td>
</tr>
<tr>
<td>DMI 50A Intro to Med Radiography</td>
<td>1.5</td>
</tr>
<tr>
<td>RADL 52 Patient Care and Staff Relationships</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 14 Advanced First Aid and Basic Life Support for Healthcare Providers</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Summer Session</strong></td>
<td></td>
</tr>
<tr>
<td>RTT 57 Multi Planar Imaging</td>
<td>1.5</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><strong>Third Semester (Fall)</strong></td>
<td></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>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>Fourth Semester (Spring)</strong></td>
<td></td>
</tr>
<tr>
<td>RTT 63 Clinical Radiation Therapy III</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Recommended electives.</strong> Courses in Computer Science; PSYC 1, 26; SOC 28; SPCH 11, 12 or 1A; classes in typing and/or keyboarding, HLTH 10, 25, 27, 33, 53, 64, and 67*</td>
<td>62</td>
</tr>
</tbody>
</table>

*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
RTT 60. Clinical Radiation Therapy (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 regulations applying to: radiography, fluoroscopy, radiation therapy and nuclear medicine. 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, radiation 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 clinical experience in a radiation therapy department. Active participation in simple and complex treatment set-ups with an emphasis on concepts of team practice and professional development. 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 treatments with an introduction to simulation. Concepts of team practice, patient-centered clinical practice and professional development. Concentration on completing procedures under supervision, but without 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 treatments 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 66. Clinical Radiation Therapy VI (4)
Lab-320 total hours
Prereq.: RTT 65
Coreq.: RTT 87
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 radiation. Treatment units used in external radiation therapy, measurement/quality of ionizing radiation produced, absorbed dose measurement, dose distribution, scatter analysis and QA. 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 educational 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; production 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 74. 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 radiation. 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

RTT 88. Russian Culture and Civilization
Lec-3
Prereq.: RTT 81, RTT 82, RTT 83, RTT 63
Coreq.: RTT 85, RTT 86, 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 89. Russian Literature in Translation
Lec-3
Prereq.: RTT 81, RTT 82, RTT 83, RTT 63
Coreq.: RTT 85, RTT 86, 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 90. Russian Culture and Civilization
Lec-3
Prereq.: RTT 81, RTT 82, RTT 83, RTT 63
Coreq.: RTT 85, RTT 86, 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

Announcement of Courses

Russian
Office: Art 202
Phone Number: (415) 239-3223
Web Site: www.ccsf.edu/forlang

Announcement of Curricula

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.

Learning Outcomes
Upon completion of this certificate, students will be able to:
- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc.
- Understand texts which consist mainly of high-frequency everyday or job-related language.
- Deal with most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.

Courses Required for the Certificate of Accomplishment in Russian

<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 Cont 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 Russ for Biling Students</td>
<td>3-3</td>
</tr>
<tr>
<td>RUSS 22 Cont of Elem Russ/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>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS 10A Beg Practical Spoken Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 10B Cont of Beg Prac Spoken Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 10C Intermed Conversational Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 10D Cont of Inter Conversational Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS 20 Independ Studies in Russ</td>
<td>1-3 (variable)</td>
</tr>
<tr>
<td>RUSS 39A-39B Russ 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

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
Advisement: 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

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
Advise: RUSS 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.
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.: For RUSS 2A: 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

RUSS 2A-2B. Continuation of Elementary Russian (3-3)
Lec-3, lab-2  P/NP available
Prereq.: For RUSS 2A: RUSS 1 or 1B or demonstration of RUSS 1/1B 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  P/NP available
Prereq.: RUSS 2 or 2B or 22 or 22B or demonstration of RUSS 2/2B or 22/2B exit skills
Review of grammar and composition; reading of cultural materials; continued practice in the use and comprehension of spoken Russian. CSU/UC

RUSS 3A-3B. Intermediate Russian (3-3)
Lec-3, lab-2  P/NP available
Prereq.: For RUSS 3A: RUSS 2, 2B, 22, or 22B or demonstration of RUSS 2/2B or 22/2B exit skills
Prereq.: For RUSS 3B: RUSS 3A or demonstration of RUSS 3A exit skills
Review of grammar and composition; reading of cultural materials; continued 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  P/NP available
Not open to native speakers of Russian
Beginner’s 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  P/NP available
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  P/NP available
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  P/NP available
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  P/NP available
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
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  P/NP available
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, compositions and reading; special emphasis on the written aspect of the language. CSU/UC

RUSS 21A-21B. Elementary Russian for Bilingual Students (3-3)
Lec-3  P/NP available
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  P/NP available
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 communica-
tion 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 elemen-
tary 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 communica-
tion 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 nine-
teenth 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.

Learning Outcomes
Upon completion of this degree, students will be able to:
- Contrast the major contemporary theoretical perspectives in
  sociology to explain culture and social structure
- Identify and apply research methods and statistical methods
  appropriate to sociology
- Apply the sociological perspective and theories to contempo-
rary issues and analyze social problems, political decisions and
  actions directed toward social and public policy
- Apply sociological principles and theories to everyday interac-
tions with people from diverse backgrounds

Courses Required for the Major in Sociology

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 3 Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 5 Statistics for Behavioral Sciences</td>
<td>4</td>
</tr>
<tr>
<td>or ECON 5 Introductory Statistics</td>
<td></td>
</tr>
<tr>
<td>or MATH 80 Probability and Statistics</td>
<td></td>
</tr>
<tr>
<td>Choose TWO classes from the following options:</td>
<td></td>
</tr>
<tr>
<td>SOC 2 Social Deviance &amp; Social Issues</td>
<td>3</td>
</tr>
<tr>
<td>SOC 25 Sex/Gender in American Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 30 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 35 Sex, Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 22 Psychology of Race and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 23 Psychology of Race and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>Choose ONE class from the following options:</td>
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</tr>
<tr>
<td>PSYC 1 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3 Introduction to Social and Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3AC Introduction to Cultural Anthropol</td>
<td>3</td>
</tr>
<tr>
<td>ogy: Focus on American Culture</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1 American Government</td>
<td>3</td>
</tr>
<tr>
<td>IDST 17 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
</tr>
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</table>

Announcement of Courses

Credit, Degree Applicable Courses:

<table>
<thead>
<tr>
<th>Year</th>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>2</td>
<td>SOC 2</td>
<td>Social Deviance and Social Issues</td>
</tr>
</tbody>
</table>

Sociology Major (AA-T)

Associate of Arts in Sociology Transfer. The program is designed to
prepare students who wish to transfer to pursue studies in sociology. It
is STRONGLY advised that potential majors meet with the Behavioral
Sciences Chair to discuss educational goals, course options and trans-
fer issues.
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.

Learning Outcomes

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

- Demonstrate fluency to interact in Spanish in a normal and spontaneous fashion at an intermediate level.
- Understand and analyze publications and current affairs media as well as contemporary literary prose.
- Demonstrate understanding of geography and cultural differences in the Spanish-speaking world.
- Display an intermediate level of proficiency in speaking, understanding, reading and writing in Spanish to perform successfully in upper division course work.

Courses Required for the Major in Spanish

Students must complete a minimum of 12 units chosen from

Course Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Total 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>3–3</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.

Learning Outcomes

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

- Understand the main points of standard speech on familiar matters encountered in work, school, leisure, etc. as well as many radio or television programs on current affairs.
- Understand texts which consist mainly of high-frequency everyday or job-related language.
- Deal with most situations likely to arise while traveling in an area where the language is spoken.
- Write simple connected text on topics which are familiar or of personal interest or personal letters describing experiences and impressions.
**Courses Required for the Certificate of Accomplishment in Spanish**

<table>
<thead>
<tr>
<th>Core Courses</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>3–3</td>
</tr>
<tr>
<td>SPAN 5, 5S Adv Spanish: Conversation on Hispanic Culture and Civilization</td>
<td>3–3</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 3I, 32 Int Spanish for Biling Students</td>
<td>5–5</td>
</tr>
<tr>
<td>SPAN 3IA, 3IB Inter Span for Biling Students</td>
<td>3–3</td>
</tr>
</tbody>
</table>

**Elective Courses**

| SPAN 10A Beg Conversational Spanish | 3 |
| SPAN 10B Cont of Beg Conversational Spanish | 3 |
| SPAN 10C Intermediate Conversational Spanish | 3 |
| SPAN 10D Cont of Inter Conversational Spanish | 3 |
| SPAN 41 Culture and Civilization of Spain | 3 |
| Total Units | 15 |

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**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  

*Advised: 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 1A-1B Elementary Spanish (3-3)**

Lec-3, lab-2  
P/NP available  

*Prereq.: For SPAN 1B: SPAN 1A or demonstration of SPAN 1A exit skills.*

*Advised: 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.*  

*Advised: 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 2. Continuation of Elementary Spanish (5)**

Lec-5, lab-2  
P/NP available  

*Prereq.: 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 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.*

*Prereq.: For SPAN 2B: SPAN 2A or demonstration of SPAN 2A exit skills.*

Completion of elementary grammar. Composition and reading. Continued practice in conversation. 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.*

*Prereq.: For SPAN 2B: SPAN 2A or demonstration of SPAN 2A exit skills.*

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 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 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 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
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
Advis: 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
Advis: 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
Advis: 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
Advis: 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 31A-31B. Intermediate Spanish for Bilingual Students (3-3)
Lec-3 P/NP available
Advis: 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
Advis: 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

Communication Studies Major (AA-T)

Speech communication majors learn the theory and principles behind the communication process and acquire skills needed to effectively communicate with others both within and across cultural boundaries in a variety of public, professional, and interpersonal settings. Students learn how to analyze audiences and craft messages that work well within these contexts as well as develop organizational, critical thinking, research, and listening skills. Students completing this major typically transfer into a broad array of communication studies majors.

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 realities and change across context. In so doing, the student will understand and apply theoretical concepts of the communication discipline.
- Identify and use communication practices that are culturally dependent and demonstrate how to effectively communicate with diverse cultural understandings. Students will display intercultural literacy, sensitivity, and self-reflective strategies.
- Manage speaking anxiety and furnish effective verbal presentations alongside presentational aids, demonstrating effective analysis of audience, environment, message-making (both verbal and non-verbal), organizational principles, and delivery skills.
- Exhibit advanced critical thinking skills to structure logical, credible, and well researched arguments that re-enforce or effectuate change in people's attitudes, beliefs, relationships, and social and political policies.
- Prepare for transfer to colleges of universities in rhetoric, communication studies, or related.
Courses Required for the Major in Communication Studies

Course | Units
--- | ---
Core Courses
SPCH 1A Elements of Public Speaking | 3
SPCH 5 Intercultural Communication | 3
ENGL 1B Reading, Writing, and Critical Thinking or ENGL 1C Advanced Composition | 3

Choose any 2 courses from the following:
SPCH 3 Argumentation and Debate | 3
SPCH 20 Interpersonal Communication | 3
SPCH 4 Small Group Communication | 3

Choose 1 course from the following:
SPCH 7 Oral Interpretation of Literature | 3
SPCH 37 Intracollegiate Forensics | 3
SPCH 38 Intercollegiate Forensics | 3
Total | 18

Speech Communication Certificate

This 12 unit course of study gives students a brief introduction to the discipline of Speech Communication.

Learning Outcomes

Upon completing the certificate, students will be able to:

- Recognize, understand, and articulate the ways in which communication, both verbal and non-verbal, affects meaning-making in various social contexts (e.g. interpersonal, intercultural, and group).
- Locate, read, and evaluate research (traditional and electronic) and learn to effectively incorporate support for ideas and construct arguments in written and spoken communication.
- Construct and responsibly present different types of organized presentations, demonstrating effective communication practices.
- Explore, compare and evaluate the basic theories of the communication discipline.

Courses Required for the Certificate of Accomplishment in Speech Communication

Course | Units
--- | ---
SPCH 12 Fundamentals of Oral Communication | 3
SPCH 4 Group Communication or SPCH 20 Interpersonal Communication | 3
SPCH 1A Elem of Public Speaking or SPCH 11 Basic Public Speaking | 3
SPCH 3 Argument and Debate or SPCH 37 Intracollegiate Spch Comp | 3
or SPCH 38 Intercollegiate Spch Comp | 3
Total Units | 12

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
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, 4, 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
Advis: SPCH 1A, 3, 4, 11, 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

SPCH 39. Intracollegiate Interpretation of Literature (3)
Lec-3, lab-3  P/NP available
Prereq.: ENGL 93 or ESL 160 or Placement in ENGL 96 or ESL 170
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 40. Intercollegiate Interpretation of Literature (3)
Lec-3, lab-3  P/NP available
Prereq.: ENGL 93 or ESL 160 or Placement in ENGL 96 or ESL 170
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 37. Intracollegiate Speech Competition (3)
Lec-3, lab-3  P/NP available
Advis: SPCH 1A, 3, 4, 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
Advis: SPCH 1A, 3, 4, 11, 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

Theatre Arts
Office: Art 149
Phone Number: (415) 239-3132
Web Site: www.ccsf.edu/theatre

The Theatre Arts Department provides both academic and production experience in all aspects of theatre. A comprehensive set of courses fulfills general education and transfer requirements.

Purpose. Students participating in the theatre arts program learn to express themselves creatively through application of the theatrical skills of acting, directing, design, technical production, and stagecraft. They develop critical thinking and analytical abilities related to interpreting and criticizing dramatic literature. Students collaborate as effective team members in performing established material or in creating original work.

Among the skills developed:
- Apply learned knowledge and skills to new and varied situations.
- Use feedback to improve performance.
- Implement time management skills to complete a task.
- Identify an objective and devise and implement a plan of action.

Learning Outcomes
- Recognize and apply standard practices of ensemble playing in a rehearsal/performance environment.
- Demonstrate skill for technical aspects of acting, including physical, vocal, imaginative, analytical and emotional elements.
- Compare and contrast theatrical periods and styles in terms of acting, directing, playwriting, and technical elements.
- Analyze theatre as a dynamic art form influencing society.
- Apply technical processes, including lighting, set, costume, and/or stage make-up design, as they pertain to a given dramatic script.

Announcement of Courses
Credit, Degree Applicable Courses:

TH A 30. Introduction to Theatre (3)
Lec-3, field trips
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
Formerly 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
Formerly TH A 105
TH A 107. Directing for the Theatre (3)
Lec-3
Examination of the function of a stage director and the techniques of stage direction with opportunities for practical experience. CSU/UC

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 200. Theatre Production (3)
Lec-3, lab-3 P/NP available
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

Enrollment Limitations on Physical Education and Visual or Performing Arts Courses
Per title 5 Section 55041, effective Fall 2013, students may not enroll more than four times in “active participatory courses that are related in content” in the areas of physical education or visual and performing arts, which includes art, dance, music, and theatre. This limitation applies even if a student receives a substandard grade or “W” during one or more of the enrollments in such a course or if the students petition for repetition due to extenuating circumstances.

Theatre Arts courses that are related in content are grouped together in “families” of courses below. The families are indicated by their headings, e.g., Play Rehearsal and Performance, Stagecraft, etc. For the most up-to-date listing of courses and families, refer to the online catalog, www.ccsf.edu/catalog.

Play Rehearsal and Performance
TH A 15. Play Rehearsal and Presentation (1-3)
Lab-3-6-9, field trips P/NP only
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
Formerly TH A 50

Musical Theatre
TH A 51. Large Scale Musical Performance Preparation (0 unit)
Lab- 1-6, field trips
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
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 cabaret production. Students must audition for, be cast in, receive direction, rehearse and perform in the cabaret. CSU

Stagecraft
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 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

Theatrical Production
TH A 61. Technical Theatre Production (1-2-3)
Lab-3-6-9 P/NP only
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

Set Design
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

Make Up and Costume
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
Acting Fundamentals
TH A 150. Beginning Acting (3)
Lec-3
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
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

Performance Projects
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.
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 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
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

Physical Theatre
TH A 153. Improvisation for Actors (3)
Lec-3
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 162. Physical Comedy, Masks and Clowning (3)
Lec-3, field trips
Prereq.: TH A 150
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.

Acting Media
TH A 154. Acting for the Camera (3)
Lec-3, lab-4, field trips
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 164. Character Voices: Voice-Over (3)
Lec-3
Advise: TH A 150
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 166. Performance Art New Media Workshop (3)
Lec-3, lab-3
Advise: IDST 125
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

Shakespeare
TH A 155. Acting Shakespeare: Text Analysis and Performance (3)
Lec-3, field trips
Advise: TH A 150 or demonstration of exit skills
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

Vocal Production and Audition
TH A 160. Vocal Production and Audition (3)
Lec-3
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

Storytelling
TH A 161. Storytelling (3)
Lec-3, field trips
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

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  
**ADVISOR: 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  
**PREREQ: PREPUL 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  
**ADVISOR: SPCH 1A, 3, 4, 11, 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  

Physical Education courses in fencing, modern and folk dance, and ballet. See listings for course description.  

**Trade Skills**  
See Automotive/Motorcycle, Construction, and Building Maintenance  

**Transitional Studies**  
Office: Mission Center  
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 centers**:  
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.  

Credits 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.

The CCSF High School Diploma’s Program Learning Outcomes are derived from the following: Common Core State Standard and CASAS competencies.

Learning Outcomes

Upon completion of CCSF high school diploma, students will be able to:

- Read clearly to determine what the text says explicitly and to make logical references from it.
- Cite specific textual evidence when writing or speaking to support conclusions drawn from text.
- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience.
- Initiate and participate in a range of collaborative discussions (one-on one, in groups, and teacher-led) with diverse partners on topics, texts, and issues, building on others’ ideas and expressing their own clearly.
- Conduct short as well as more sustained research projects to answer a question or solve a problem.
- Use technology, including the Internet, to produce, publish, and update individual or shared writing.
- Use diverse electronic resources to acquire, organize, analyze and communicate information.

Students who complete courses in the Science Core Area will be able to:

- Use mathematical reasoning to solve problems.
- Evaluate the hypotheses, data, analysis and conclusions in a science text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
- Synthesize information from a range of sources (e.g., texts, experiments, simulations) into coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
- Recognize the relationships between the natural sciences and society and the application of science to societal challenges.

Students who complete courses in the Social Science Core Area will be able to:

- Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- Determine the central ideas or information of a primary or secondary source; provide an accurate summary the makes clear the relationship among the key details and ideas.
- Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence.
- Evaluate author’s differing points of view on the same historical, current event or issue by assessing the author’s claims, reasoning, and evidence.
- Integrate and evaluate multiple sources of information presented in diverse formats and media.
- Interpret statistical information used in reports and articles.

Students who complete courses in the Humanities Core Area will be able to:

- Critically analyze ideas and diverse cultural values and articulate their own values and beliefs and compare them with those of diverse cultures and identify the relationships between them.
- Identify universal themes reflected in the humanities.

Students who complete courses in the English Core Area will be able to:

- Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
- Assess how point of view or purpose shapes the content and style of a text.
- Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the authors take.
- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- Present information, findings and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentation.

Students who complete courses in Math Core Area will be able to:

- Reason abstractly and quantitatively.
- Construct variable arguments and critique the reasoning of others.
- Model with mathematics.
- Demonstrate the ability to use symbolic, graphical, numerical, and written representations of mathematical ideas.
- Estimate and check answers to mathematical problems determining reasonableness, and correctness of solution.

Total 160 High School Credits:

I10 Minimum Required Core Credits plus 50 Elective Credits
(A)Natural Sciences ................................ 20 Credits
(B) Social & Behavioral Sciences ............. 30 Credits
(C)Humanities .................................... 10 Credits
(D)English ........................................ 30 Credits
(E) Mathematics .................................. 20 Credits
(F) Electives ..................................... 50 Credits
Total ........................................... 160

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

A certificate of completion will lead to improved employability or job placement opportunities. This certificate requires successful completion of two courses with a minimum of 144 hours of Instruction.

Learning Outcomes

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

- Apply phonics and word analysis skills in decoding words.
- Read with accuracy and fluency to support comprehension.
• Determine two or more main ideas of a text and explain how they are supported by key details.
• Demonstrate command of the conventions of Standard English grammar and usage when writing.
• Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
• Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
• Initiate and participate in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on topics, texts, and issues, building on others’ ideas and expressing their own clearly.
• Use technology, including the Internet, to produce, publish, and update individual or shared writing.

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></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>144–745</td>
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</tbody>
</table>

Adult Basic Education Level 2 Noncredit Certificate

A certificate of completion will lead to improved employability or job placement opportunities. This certificate requires successful completion of two courses with a minimum of 144 hours of instruction. Students will be able to continue on with GED test preparation instruction.

Learning Outcomes

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

• Read clearly to determine what the text says explicitly and to make logical references from it.
• Demonstrate command of the conventions of Standard English grammar and usage.
• Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
• Initiate and participate in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on topics, texts, and issues, building on others’ ideas and expressing their own clearly.
• Use technology, including the Internet, to produce, publish, and update individual or shared writing.

Courses Required for the Certificate of Completion in Adult Basic Education Level 2

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td></td>
</tr>
<tr>
<td>TRST 0039 ABE/Pre 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>144–745</td>
</tr>
</tbody>
</table>

Adult Secondary Education Level 3 Noncredit Certificate

A certificate of completion will lead to improved employability or job placement opportunities. This certificate requires successful completion of two courses with a minimum of 144 hours of instruction. Students will be prepared to pass the General Education Development Examination.

Learning Outcomes

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

• Read to determine what the text and graphs says explicitly and to make logical references from it.
• Determine an author’s point of view or purpose in a text.
• Recognize the logical structures of ideas and draw implications.
• Apply information in a new context.
• Synthesize meaning and inferences from one text to another text.
• Judge validity of information and detect bias.
• Apply grammatical rules when editing sentences.
• Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
• Initiate and participate in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on topics, texts, and issues, building on others’ ideas and expressing their own clearly.
• Compute using whole numbers, decimal fractions, fractions, percent, ratio and proportion.
• Use mathematical reasoning, expressions, equations, and formulas to solve problems.
• Interpret data from graphs and compute averages

Courses Required for the Certificate of Completion in Adult Secondary Education Level 3

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td></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

A certificate of completion will lead to improved employability or job placement opportunities and basic skills. This certificate requires successful completion of two courses with a minimum of 144 hours of instruction. Students will be prepared for academic study in the Academic Skills Intermediate Level 2 Noncredit Certificate.

Learning Outcomes

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

• Determine central ideas and summarize the key supporting details.
• Cite specific textual evidence when writing or speaking to support conclusions drawn from text.
• Interpret words including connotative and figurative meanings.
• Demonstrate command of the conventions of Standard English grammar and usage when writing.

Courses Required for the Certificate of Completion in Academic Skills Elementary Level 2 Noncredit Certificate

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td></td>
</tr>
<tr>
<td>TRST 0039 ABE/Pre 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>144–745</td>
</tr>
</tbody>
</table>
• Write informative/explanatory texts to examine a topic and convey ideas.
• Initiate and participate in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on topics, texts, and issues, building on others' ideas and expressing their own clearly.
• Use technology, including the Internet, to produce, publish, and update individual or shared writing.
• Compute using whole numbers.
• Describe and compare fractions and decimals.
• Use mathematical reasoning to solve problems

Courses Required for the Certificate of Completion in Academic Skills
Elementary Level 1

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
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</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>
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<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 1411 Gateway to Credit Math</td>
<td>90</td>
</tr>
<tr>
<td>TRST 1422 Math Skills Development 1</td>
<td>90-180</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>144–925</strong></td>
</tr>
</tbody>
</table>

Academic Skills Intermediate Level 2 Noncredit Certificate

A certificate of completion will lead to improved employability or job placement opportunities. This certificate requires successful completion of two courses with a minimum of 144 hours of instruction.

Learning Outcomes

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

• Write informative/explanatory texts to examine a topic and convey ideas.
• Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.
• Compute using decimal fractions, fractions, percent, ratio and proportion.
• Use divergent thinking to generate multiple solutions.
• Perform basic arithmetic operations.
• Use mathematical reasoning to solve problems.
• Conduct short as well as more sustained research projects to answer a question or solve a problem.
• Use technology, including the Internet, to produce, publish, and update individual or shared writing.
• Use diverse electronic resources to acquire, organize, analyze and communicate information.

Courses Required for the Certificate of Completion in Vocational Foundation Skills

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>TRST 0038 Orientation to Academic Success</td>
<td>8–25</td>
</tr>
<tr>
<td>TRST 2521 Career &amp; Personal Income Management</td>
<td>90</td>
</tr>
<tr>
<td>TRST 4600 Pre-Vocational Foundations Skills</td>
<td>45–90</td>
</tr>
<tr>
<td>TRST 4601 On the job Communication Skills</td>
<td>54–90</td>
</tr>
<tr>
<td>TRST 4602 Literacy Tutor Training</td>
<td>12</td>
</tr>
<tr>
<td>TRST 4603 Graphic Arts Academics</td>
<td>36–180</td>
</tr>
<tr>
<td>TRST 4604 Vocational Foundation Skills</td>
<td>36–180</td>
</tr>
<tr>
<td>TRST 4640 Vocational Foundation</td>
<td>144–712</td>
</tr>
</tbody>
</table>

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)
Advises: 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)
Advises: 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)
Advises: 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 Center.

TRST 0040. GED Preparation (54-540 hrs)
Advises: 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 Center.

TRST 0053. 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)
Advises: 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 1300.

TRST 1322. Academic Reading and Writing 1.5 (90 hrs)
Advises: ESL Level 7, Placement in TRST 1322
A beginning course designed to develop reading, critical thinking skills, and paragraph and essay writing. Formerly TRST 1301.

TRST 1323. Vocabulary (90-180 hrs)
Advises: 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)
Advises: 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)
Advises: 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)
Advises: 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)
Advises: 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 (90 hrs)
Advises: 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)
Advises: 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)
Advise: 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)
Advise: 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 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)
Advise: TRST 3321 or TRST 3324
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)
Advise: TRST 3334 or Placement into TRST 3335
Students read and respond to culturally significant works of literature and conduct in-dept analyses of recurrent patterns and themes.

TRST 3346. HS English: Literature and Composition (90 hrs)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
Advise: 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)
ADVICE: 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)
ADVICE: 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)
ADVICE: 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)
ADVICE: 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)
ADVICE: PLACEMENT IN TRST 3346
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)
ADVICE: 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 will 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)
ADVICE: 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)
ADVICE: PLACEMENT IN TRST 4601
Listening and responding skills and other interpersonal communication skills needed for success on the job. Includes résumé 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)
ADVERTISE: 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 aca-
demic 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/womn

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 uni-
versities. 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 institution-
  alized oppression such as racism, homophobia/heterosexism,
  classism, ableism, ageism, transphobia and ageism/adulthood.
- 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</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOMN 25 Introduction to Women’s Studies: Feminism Demystified</td>
<td>3</td>
</tr>
</tbody>
</table>

Three units from the following Behavioral Sciences Courses:

| PSYC 25 Psychology of Sex Differences | 3 |
| SOC 25 Sex and Gender in American Society | 3 |
| ANTH 25 Culture, Gender, and Sexuality | 3 |

Three units from the following Social Sciences Courses:

| ECON 25 Women in the Economy | 3 |
| HIST 12A U.S. Women’s History (pre-colonial to the 1880s) | 3 |
| HIST 12B U.S. Women’s History (1880s to the present) | 3 |

Six units from the following Humanities Courses:

| HUM 25 Women in the Arts | 3 |
| ART 108 Women through Art History | 3 |
| IDST 23 African American Women in the Creative Arts | 3 |
| ENGL 37 African American Women in Literature | 3 |
| ENGL 55 Gay and Lesbian Literature Survey | 3 |
| ENGL 57 Women and Literature | 3 |
| ENGL 58A Contemporary Women Writers and Poets | 3 |
| WOMN 10 Women and Film | 3 |
| WOMN 20 Her/His/Outstories | 3 |
| BCST 105 Gender and Mass Media | 3 |

Three units from the following Diversity Focus Courses:

| AFAM 60 The African Woman in the U.S. | 3 |
| ASAM 35 Asian American Women | 3 |
| LALS 10 Latinas in the U.S.: Voces (Voices) | 3 |
| LGBT 21 Issues in Lesbian Relationships | 3 |
| LGBT 30 Issues in the Lesbian Community | 3 |
| IDST 80A Diversity and Social Justice: Racism | 3 |
| IDST 80C Diversity and Social Justice: Sexism | 3 |
| IDST 80D Diversity and Social Justice: Heterosexism | 3 |
| IDST 80E Diversity and Social Justice: Ableism | 3 |
| IDST 80F Diversity and Social Justice: Classism | 3 |
| IDST 80G Diversity and Social Justice: Transphobia | 3 |

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 a opportunity to identify vari-
ous 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.

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>
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</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>
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</table>

Elective Courses (4 units from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<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>
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<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>
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<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 Health &amp; Stress in Society</td>
<td>3</td>
</tr>
<tr>
<td>LGBT 21 Issues in Lesbian Relationships</td>
<td>3</td>
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<tr>
<td>LGBT 24 Gay Male Relationships</td>
<td>3</td>
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<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>
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</tbody>
</table>

Total Units .................................................................................. 16

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, field trips P/NP Available
Advise: ESL 150 or Placement in ENGL 92 or ESL 160
The course offers strategies for researching individual and community stories to enhance life and career/job choices while emphasizing female oral storytelling traditions. Documentation skills and processes such as formatting, copyediting, layout, and working with multimedia design consultants are also covered. CSU

WOMN 25. Introduction to Women's Studies: Feminism Demystified (3) Lec-3
Introduction to the origins, purpose, subject matter, and methods of Women's Studies and to feminist perspectives on a range of social issues affecting women of diverse backgrounds. Focus on how grassroots feminism led to Women's Studies as a discipline and the connection between the classroom and the community. CSU/UC (UC upon review)

WOMN 51-52-53. Current Topics in Women's Studies (1-2-3) Lec-1,2,3
An interdisciplinary approach to current issues and concerns of women in a variety of areas, such as health, history, and sexuality. CSU

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
This course explores how women and men express their gender and sexuality in various cultures around the world. Focuses on women and men in non-Western cultures such as Native American, African and Asian societies. Discusses relationship of gender to aspects of culture such as kinship, economics, politics, and religion. UC/CSU

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)
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 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 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 P/NP available
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 CCSF 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

IDST 80A. Diversity: Racism
IDST 80C. Diversity: Sexism
IDST 80D. Diversity: Heterosexism
IDST 80E. Diversity: Ableism
IDST 80F. Diversity: Classism
IDST 80G. Diversity: Transphobia
IDST 81B. Diversity: Anti-Semitism/Anti-Arabism

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.

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
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.
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.
P E 277. Self Defense For Women (1)
Lab-2  P/NP available
An integrated approach to rape prevention incorporating psychological, physical and preventive skills. CSU/UC

P E 278. Personal Defense and Safety Awareness (1)
Lab-2  P/NP available
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

PSYC 14. Psychology of Shyness and Self Esteem (1)
Lec-1  P/NP available
An examination of psychological theories and research on the development 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 their application to assertive behavior. Assertiveness techniques in a variety of situations, including communication with family, friends and work associates. CSU

PSYC 17. Psychology of Eating, Food, and Weight (1)
Lec-18 (total hrs)  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 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 understanding of personal and professional relationships. CSU/UC

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

SPCH 1A. Elements of Public Speaking (3)
Lec-3  P/NP available
Prereq.: ENGL 96
Some sections of SPCH 1A 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.
COLLEGE RULES AND REGULATIONS

Compliance with College Rules and Regulations and Notices

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.

Nor shall any such persons be denied full and equal access to, the benefits of, or be subjected to discrimination on the basis of marital status*, medical conditions*, gender identity, domestic partner status*, AIDS/HIV status*, status as a Vietnam-Era veteran*, or status as a lesbian, gay, bisexual, transgender* or questioning* person in any District program or activity.

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.

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 discharge, expulsion, or termination of contract.


*These categories are not subject to the State Chancellor's jurisdiction.

Definitions

Definitions applicable to the nondiscrimination policies are as follows:

- “Appeal” means a written and signed statement meeting the requirements of Title 5, section 59328 that alleges unlawful discrimination in violation of the nondiscrimination regulations adopted by the Board of Governors of the California Community Colleges, as set forth at Title 5, section 59300 et seq.

- “Days” means calendar days.

- “Disability” means, with respect to an individual:
  1. A physical or mental impairment that substantially limits one or more major life activities of such individual;
  2. A record of such an impairment; or
  3. Being regarded as having such an impairment.

- “Gender” includes a person’s gender identity and gender-related appearance and behavior whether or not stereotypically associated with the person’s assigned sex at birth.

- “Major life activities” include functions such as caring for one’s self, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating and working.

4. Rules of construction regarding the definition of disability (ADA Amendments Act of 2008):
   - The definition of “disability” shall be construed in accordance with the following:
     - (A) The definition of disability shall be construed in favor of broad coverage of individuals to the maximum extent permitted by the Americans with Disabilities Act, as amended.
     - (B) The term “substantially limits” shall be interpreted consistently with the findings and purposes of the ADA Amendments Act of 2008.
     - (C) An impairment that substantially limits one major life activity need not limit other major life activities in order to be considered a disability.
     - (D) An impairment that is episodic or remissions is a disability if it would substantially limit a major life activity when active.

(E)(1) The determination of whether an impairment substantially limits a major life activity shall be made without regard to the ameliorative effects of mitigating measures such as:
   - (i) medication, medical supplies, equipment, or appliances, low-vision devices (which do not include ordinary eyeglasses or contact lenses), prosthetics including limbs and devices, hearing aids and cochlear implants or other implantable hearing devices, mobility devices, or oxygen therapy equipment and supplies;
   - (ii) use of assistive technology;
   - (iii) reasonable accommodations or auxiliary aids or services; or
   - (iv) learned behavioral or adaptive neurological modifications.

2 The ameliorative effects of the mitigating measures of ordinary eyeglasses or contact lenses shall be considered in determining whether an impairment substantially limits a major life activity.

- “Gender includes a person’s gender identity and gender related appearance and behavior whether or not stereotypically associated with the person’s assigned sex at birth.

- “Major life activities” include functions such as caring for one’s self, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating and working.

3. Being regarded as having such an impairment.

5, section 59300, participation in a group associated with persons having such characteristics, or use of a facility associated with use by such persons.

- “Complaint” means a written and signed statement meeting the requirements of Title 5, section 59328 that alleges unlawful discrimination in violation of the nondiscrimination regulations adopted by the Board of Governors of the California Community Colleges, as set forth at Title 5, section 59300 et seq.

- “Days” means calendar days.

- “Disability” means, with respect to an individual:
  1. A physical or mental impairment that substantially limits one or more major life activities of such individual;
  2. A record of such an impairment; or
  3. Being regarded as having such an impairment.

- “Gender” includes a person’s gender identity and gender-related appearance and behavior whether or not stereotypically associated with the person’s assigned sex at birth.

- “Major life activities” include functions such as caring for one’s self, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating and working.
“Sexual harassment” is unlawful discrimination in the form of 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 following 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, influence, 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, recommendations, 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 heterosexual, homosexuality, or bisexuality.

“Unlawful discrimination” means any complaint of unlawful discrimination based on a category protected under Title 5, section 59300, including sexual harassment, harassment based on a protected 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 investigation 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 discrimination policy.

The compliance officer/Coordinator for purposes of this policy is the District Title 5/EEO/ADA Compliance Officer, 31 Gough Street, San Francisco, CA 94103, (415) 241-2294. Information concerning the provisions of the applicable laws and complaint procedures is available from the District Title 5/EEO/ADA Compliance Officer.

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 deemed incorporated by reference into, and shall prevail over conflicting provisions of Title 5, section 59300, as cited in this Policy.

If the Americans with Disabilities Act of 1990 definitions would result in broader protection of the civil rights of individuals with a mental or physical 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 provisions of the definitions in Government Code section 12926 and should be included in District policy. (Gov. Code, Section 12926(1.).)

Campus Attire
Students are urged to dress appropriately everywhere on the campus at all times. Instructors in special areas (i.e., gymnasiums and laboratories) may require students to wear particular clothing for suitability or to meet health and/or safety regulations. For more information, contact the Office of Student Wellness and Affairs.
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 SFCCCD to operate its programs and services so that they are readily accessible to students with disabilities. Reasonable accommodations (academic adjustments and auxiliary aids) 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 matriculated 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 locations 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 more information, contact the Office of Student Wellness and Affairs.

For information about health and legal dangers of using alcohol and/or drugs you can go to the following place:
- Students may visit the Student Mental Health Services in the Student Health Center, Ocean Campus, or call 239-3110 or 239-3148.

Petitions for Waiving Regulations
A student may petition the Office of Admissions, Records and Outreach, Conlan Hall, Room 107, 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, Records, Outreach 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 Conduct and Discipline, Complaints, Appeals, Records-Dean of Student Wellness and Affairs 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
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 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 cancellation 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.

iv. 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 administration (see Section 4 above).

v. 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.

vi. 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.

vii. 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 sources 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 location 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 diveri
sion 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, lead-
ing 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 con-
tact, 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 distribut-
ing 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 belong-
      ing 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 pri-
      mary 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 loca-
tions of CCSF. For locations other than Ocean Campus, 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 infor-
mation 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 bul-
   etin 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 off 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 Conduct and Discipline

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. For more information, contact the office of Student Affairs and Wellness.

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 District; or injury to property belonging to a member of the District community or to an authorized District visitor while on District property;
6. Unauthorized entry to or use of District facilities, supplies, equipment, including computing, networking or information resources;
7. Obstruction or disruption of classes, distance learning courses and websites, computer laboratories or study facilities such as the Library or the Learning Assistance Center, student activities, administration, disciplinary procedures, governance processes, or other authorized District activities;
8. The use, sale, distribution or possession of, or presence on campus while under the influence of alcoholic beverages, narcotics, or other dangerous or hallucinogenic drugs or substances including marijuana and lsd or any controlled substance (except as expressly permitted by law and evidenced by medical authorization) or use, sale, distribution of any poison classified as such by Schedule D in Section 4160 of the Business and Professions Code;
9. Willful or persistent smoking in any area where smoking has been prohibited;
10. Violation of District rules and regulations including those concerning student organizations, the use of college facilities, or the time, place and manner of public expression or distribution of materials;
11. Violation of the District's Sexual Harassment Policy (see appropriate sections of the Catalog for a complete version of the Policy);
12. Violation of the District's Computer Usage Policy (see appropriate sections of the Catalog for a complete version of the Policy);
13. Disorderly, lewd, indecent, obscene, or offensive conduct or expression which interferes with the District's primary educational responsibility;

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 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 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 or pupil 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 Wellness and Affairs (Conlan Hall, Room 106) has the responsibility to assure the implementation of this due process.

Student Complaints

A student complaint is an allegation by a student against

1. another student(s)
2. a classified staff member(s)
3. a faculty member(s)
4. an administrator(s)

That 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 against another student(s) should be addressed in writing with the Office of Student Wellness and Affairs and will be handled by the Dean of Student Wellness and Affairs and his/her staff. Student complaints against a classified staff member(s) and/or an administrator(s) should be addressed with the Office of Student Wellness and Affairs for accurate referral to the appropriate supervisor.

Student complaints are governed by the following procedure:

Informal Process for Complaint Against a Faculty Member

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 for Complaint Against a Faculty Member**

1. If any party is dissatisfied with the result of the informal process, that party may appeal the matter to the Dean of Student Wellness and Affairs 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.

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**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 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 Admissions, Records and Outreach, Conlan Hall, Room 107. This petition requires that the student explain the grading issue in writing (typed and double-spaced) and present this written explanation to the instructor, the department chair, and the school dean in turn. Each of these three individuals is expected to attempt to resolve the issue. If the issue remains unresolved, the student submits his/her petition to the Assistant Dean of Admissions and Outreach who will verify that the petition has been submitted in a complete and timely manner. The Assistant Dean of Admissions and Outreach will also review the petition with regard to content and will advise the student on the appropriateness of further appeal to the Grade and File Review Board.

**STEP 3:**
After the conference with the Assistant Dean of Student Admissions and Outreach 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 Assistant Dean of Admissions and Outreach, 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 designer. 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 Assistant Dean of Student Admissions and Outreach. 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 Assistant Dean of Admissions and Outreach 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 Assistant Dean of Admissions and Outreach, Conlan Hall, Room 107.

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 aides, who wear a slightly different uniform w/SFCCPD patch and silver shields. The Department operates 7 days a year from 5:30 am to 12:30 am from its main headquarters located at City College, Ocean Campus, Cloud Hall room 119, telephone number (415) 239-3200. During closed hours, the college is patrolled by SFPD.

The San Francisco Community College Police Department is responsible for the overall law enforcement protection and duties as well as parking enforcement district-wide, excluding the Airport Campus, Fort Mason and designated lease locations. Under a memorandum of understanding, these area come under the jurisdiction of SFPD. Officers patrol City College Locations via marked emergency police vehicles, bicycle and foot patrols ensuring public safety for the campus community. The San Francisco Community College Police Department’s website id located at www.ccsf.edu/Departments/Public_Safety or linked from the main City College of San Francisco’s website at www.ccsf.edu.

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. For more information contact the Office of Students Wellness and Affairs.

**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 locations of City College of San Francisco have NO on-site parking or very limited parking for students. For student parking information for all other locations, 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 login 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.

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 organizations. 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 warrant the confidentiality 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 suspected 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 policies 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 applicable 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 appropriate 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 material, including text, fonts, graphics, sound, video and others. The End User License Agreement (EULA) for a product specifies the conditions 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."

Any user who files a complaint or otherwise protests against discrimination has the right to be free from any retaliatory action because of the complaint or protest. The CCSF administrator who receives a complaint 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 loopholes 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 slanderous 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**
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**
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 POLICIES AND PROCEDURES

AIRPORT CENTER
Academic Freedom

The following academic freedom statement is an excerpt from Board Policy 6.06. Those interested in the complete statement should refer to http://www.ccsf.edu/Board.

The District is unequivocally and unalterably committed to the principle of academic freedom in its true sense which includes freedom to study, freedom to learn and freedom to teach and provide educational 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>
</tbody>
</table>

FW = Failing/Withdrawal ................................. 0
The "FW" grade symbol is an indication that a student has both ceased participating in a course some time after the last day to officially withdraw from the course without having achieved a final passing grade, AND that the student has not received District authorization to withdraw from the course under extenuating circumstances. The "FW" symbol may not be used if a student has qualified for and been granted military withdrawal "MW". If an "FW" is used, its grade point value equals zero (0), and it will be calculated into the GPA in the same manner as an "F" grade.

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. (See Calendar of Instruction for this date.) 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 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 not 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

Symbol = Definition

"E" = Exclusion
"I/" = Incomplete
"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 requisites 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 pre/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 the Office of Matriculation Services (E-204) or the department chair of the course.
2. 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.
3. 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.
4. 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 petition with the decision indicated. If the challenge is denied, the student will not be eligible for the course and will be dropped if already enrolled in the course.
5. 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 grades 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. To permit a student to alleviate a substandard grade of D, F, NP, or NC.
3. When the district determines that there has been a significant lapse of time since the course was taken.
4. When the district finds that the student's grade is, at least in part, the result of extenuating circumstances.
5. When the student is repeating a course in occupational work experience.
6. When a student with a disability is repeating a special class for students with disabilities.
7. When repetition is necessary to meet a legally mandated training requirement as a condition of continued paid or volunteer employment.
8. When there has been a significant change in industry or licensure standards such that repetition of the course is necessary for employment or licensure.

Details of each circumstance are included below.

There are special limitations on student enrollment in active participatory courses that are related in content to the areas of physical education and visual and performing arts. Details of these limitations are also included below.

Before repeating any course, students must seek the advice of his or her counselor. 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” counts as a repetition.
3. When a student repeats a course to alleviate a substandard grade of D or F, the original grade remains a part of the permanent record but will not be used in calculating the student’s CCSF grade point average.
4. When course repetition is approved based on extenuating circumstances, the original grade remains a part of the permanent record but will not be used in calculating the student’s CCSF grade point average.
5. When a student repeats a course in circumstances other than alleviating substandard coursework or approved extenuating circumstances, the original grade and any subsequent grades are used in calculating the student’s CCSF grade point average.
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.

Repeateable Courses

Repeateable courses are courses in which any student who has completed a course can re-enroll in it, up to a certain limit. There are very few courses that may be designated as repeateable. Effective Fall 2013, Title 5 Section 55041 permits only the following to be repeateable:

- Courses for which repetition is necessary to meet the major requirements of CSU or UC for completion of a bachelor's degree
- Intercollegiate athletics courses
- Intercollegiate academic or vocational competition courses that are part of a district sanctioned competitive activity

Repeatable courses are identified in the College Catalog, along with their repetition limits. Repeatable courses may be taken for a total of four enrollments, unless further limits exist for the specific course. Any enrollment that results in a letter grade or “W” counts towards this limitation. Students do not need to file a petition to re-take a repeatable course.

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 (including such withdrawals in semesters before the ones in which the D, F, NP, or NC were received), counts towards this two repetition limit.

Significant Lapse of Time

A student receiving a satisfactory grade may repeat a course one time if the district determines that there has been a significant lapse of time of no less than 36 months since that grade was obtained. This section applies when one of the following conditions is 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. Note: The minimum 36-month lapse of time requirement may be waived if a student documents that repetition is necessary for his or her transfer to the institution of higher education.

Students must complete a Petition for Course Repetition to repeat a course due to significant lapse of time.

Extenuating Circumstances

Students may repeat a course when the district determines 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

Occupational work experience courses may be repeated a maximum of 8 units per semester; general work experience courses may be repeated for a maximum of 6 units per semester. The cumulative maximum for work experience credit is 16 units. The repetition limit for a particular work experience course is printed in the College Catalog. Grades received in all repetitions of a 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 nondiscrimination 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 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.

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.

Significant Change in Industry or Licensure Standards
Students may repeat a course when there has been a significant change in industry or licensure standards such that repetition of the course is necessary for employment or licensure. Students may repeat these courses any number of times. Students wishing to repeat a course to meet these employment or licensure requirements must file a Petition for Course Repetition so that they can provide documentation of the significant change in industry or licensure standards.

Enrollment Limitations on Physical Education and Visual or Performing Arts Courses
Per Title 5 Section 55041, effective Fall 2013, students may not enroll more than four times in active participatory courses that are related in the areas of physical education or visual and performing arts, which includes art, dance, music, and theatre. This limitation applies even if a student receives a substandard grade or “W” during one or more of the enrollments in such a course or petitions for repetition due to extenuating circumstances.

Courses that are related in content are identified as “families of courses” in the departmental course listings in the College Catalog. Enrollment limitations are also noted in the course descriptions.

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 of academic renewal.
5. Academic Renewal will only be processed if all final grades are posted. (Report Delayed (RD) and/or Incomplete (I) are not final grades).

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 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 10 or as an option your SSN; click on the III 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 email 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
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 be currently 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/NC) 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.

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 "Course Equivalency/Comparability" form. Student inquiries with either a specific department or with A&R should occur prior to petitioning for graduation.
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 applicable 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 500 or above (Paper and Pencil Testing) or a score of 50 or above (Computer Based Testing). California State University (CSU) will accept certain CLEP exams to meet statewide general education requirements (for details, go to www.csuf.edu/artic and select CSU, then Resources). Individual CSU campuses may accept additional CLEP exams for credit and/or apply them towards graduation requirements. Students should check with the specific CSU campus for information on how the campus applies CLEP exam credit.
   Credit under both AP and CLEP programs is usually granted only to students with no college work completed. Students who have completed college work prior to taking the examinations, or who wish both advanced placement and CLEP credit, should consult the individual Departments for approval. (Students who plan to transfer to a four-year institution should contact the transfer institution 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 counted 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.

Placement Challenges. Students may retake the English Placement Test (http://www.ccsf.edu/NEW/en/future-students/future-credit-students/take_a_placementtest/test_retake_policy.html) or meet with the English Eligibility Coordinator in Batmale 514 to schedule a written essay challenge exam. Access the English Eligibility website at https://sites.google.com/a/mail.ccsf.edu/eligibility/.

English as a Second Language
The degree and kind of English-language proficiency achieved by students for whom English is not the primary language will be determined by additional, specially designed diagnostic examinations. Placement will be most commonly in one or more courses in English as a Second Language (ESL). Appropriate courses taken in summer session are acceptable. Students for whom English is clearly the main or only language will not be permitted to enroll in ESL courses.

Students who take the ESL placement test but are judged to be sufficiently competent in English are referred to the English Department.
## 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.

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<td>Italian Language &amp; Culture</td>
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<td>CCSF Units Awarded</td>
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<td>Math 110A or Math 100A</td>
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<td>4 or 3</td>
<td>Math 110A or Math 100A</td>
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<td>(4 &amp; 4) or 3</td>
<td>(Math 110A &amp; 110B) or Math 100A</td>
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<td>Consult with Department Chair</td>
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<td>4</td>
<td>Math 80</td>
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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.

**Faculty & Administration of City College**

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**Diverse Backgrounds**
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**A**

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<th>Name</th>
<th>Department</th>
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<tbody>
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<td>Business</td>
<td>B.S., University of California, Berkeley; M.S., Golden Gate University</td>
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<td><strong>LEYFE, DEBBIE POLLACK</strong></td>
<td>English as a Second Language</td>
<td>B.A., University of California, Berkeley; M.A., New York University</td>
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<td><strong>LEYFE, LYNN</strong></td>
<td>English as a Second Language</td>
<td>B.A., University of Washington, Seattle; M.A., San Francisco State University</td>
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<td><strong>LEW, EUNICE</strong></td>
<td>English as a Second Language</td>
<td>B.A., M.A., San Francisco State University</td>
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<td><strong>LEWIN, SIDNEY</strong></td>
<td>Environmental Horticulture &amp; Floristry</td>
<td>B.L., University of Oregon; M.A., Ph.D., Columbia Pacific University</td>
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<td><strong>LEWIS, DAVID</strong></td>
<td>English as a Second Language</td>
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<td><strong>LEWIS, CHRISTA</strong></td>
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<td>Foreign Languages</td>
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<tr>
<td><strong>LIANG, MANDY</strong></td>
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<td>B.A., Towson State University; M.A., University of Maryland</td>
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<td><strong>LIN, JAMES</strong></td>
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<td><strong>LIN, DORIS</strong></td>
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<td><strong>LIN, JEANNE</strong></td>
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<td><strong>LING, GARY</strong></td>
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<td><strong>LISKER, DAVID</strong></td>
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<td><strong>LIU, DEBRA</strong></td>
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<td><strong>LIU, HSIN-YUN</strong></td>
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<td>B.A., National Taiwan University; M.A., University of Cologne; Ph.D., University of Cologne</td>
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<td><strong>LIU, MAIDA</strong></td>
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<td><strong>LIU, RENEE</strong></td>
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<td><strong>LO, SUZANNE</strong></td>
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<td><strong>LOFTHOUSE, ERIN</strong></td>
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<tr>
<td>Name</td>
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<td>Education</td>
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<td>Luckey, Bernadine</td>
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<td>Mackey, Robin H.</td>
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<td>Mbarujo-Duck, Lillian</td>
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<td>Martin, Molly (Mo)</td>
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<td>B.S., M.S., University of Kentucky</td>
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<td>Martin, Tina</td>
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<td>Matsumura, Mikiko</td>
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<td>Mauleon-Santana, Rebeca</td>
<td>Music</td>
<td>A.A., City College of San Francisco; B.A., M.A., Mills College, Oakland, CA</td>
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<td>Maurer, Karl</td>
<td>Computer Networking and Information Technology</td>
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<td>Mayer, Ann B.</td>
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<td>Mboilo, Billington</td>
<td>Transitional Studies</td>
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<td>Mcadam, Sherry</td>
<td>English as a Second Language</td>
<td>A.A., Fullerton Jr. College; B.A., Sonoma State University; M.A., University of San Francisco; Cert., Court Interpreter</td>
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<td>Mcateer, Robert</td>
<td>Photography</td>
<td>A.S., Cecil Community College; B.A., Allentown College; M.F.A., University of Delaware</td>
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<td>McCarthy, Denise</td>
<td>English as a Second Language</td>
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<td>McCarthy, Leilah</td>
<td>Physics</td>
<td>B.S., Ohio State University; M.S., University of California, Davis</td>
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<td>McCarthy, Monica</td>
<td>General Counseling</td>
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<td>Mcclain, Laurene Wu</td>
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<td>Mccormack, Irene</td>
<td>Vocational Nursing</td>
<td>R.N., A.S., City College of San Francisco; B.A., New College of California</td>
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<td>Mcfadden, James</td>
<td>Music</td>
<td>B.A., St. Patrick’s College; M.A., San Francisco State University</td>
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<td>MCFarland, Sheila</td>
<td>Broadcast Electronic Media Arts</td>
<td>B.A., University of California, Berkeley; M.A., San Francisco State University; M.S., Cal State East Bay</td>
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<td>Mcgrewy, Abigail</td>
<td>Health Care Technology</td>
<td>B.S.N., St. Louis University, St. Louis, MO</td>
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<td>Mcierny, William</td>
<td>Chemistry</td>
<td>B.S., Loyola University of Chicago; Ph.D., Stanford University</td>
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<td>General Counseling</td>
<td>B.A., Lewis and Clark College; M.A., Sonoma State University</td>
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<td>Mcleanah, Amy D.</td>
<td>Mathematics</td>
<td>B.S., University of Massachusetts, Amherst; M.A., University of California, Santa Barbara</td>
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<td>Mclern, Deborah J.</td>
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<td>McNichol, Julita</td>
<td>Transitional Studies</td>
<td>B.A., Universidad Complutense, Spain; M.A., San Francisco State University</td>
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<td>McNichol, Thomas</td>
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<td>B.A., Bucknell University; M.A., San Francisco State University</td>
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MEAGHER, CAROLE, Business
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<thead>
<tr>
<th>Name</th>
<th>Degree/Institution</th>
<th>Field</th>
</tr>
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<tbody>
<tr>
<td>Chavoshian, Ali-Reza</td>
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<tr>
<td>Cheng, Chih-Yhi</td>
<td>B.A., Fu-Jen Catholic University; M.A., San Francisco State University</td>
<td>Foreign Language</td>
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<tr>
<td>Chin, Eddie Y.</td>
<td>B.A., San Francisco State University; M.A., University of San Francisco; J.D., University of California</td>
<td>English as a Second Language</td>
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<tr>
<td>Ching, GARY, Architecture</td>
<td>B.A., New York University, NY; M.A., University of California, Berkeley</td>
<td>Architecture</td>
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<td>Chinn, Garrett</td>
<td>B.A., San Francisco State University</td>
<td>Older Adults</td>
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<td>Chown, Miriam</td>
<td>B.A., San Francisco State University</td>
<td>Business</td>
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<td>Choy, Herbert</td>
<td>A.A., City College of San Francisco; B.A., M.A., San Francisco State University</td>
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<td>Choy, Keith, Transitional Studies</td>
<td>B.A., University of California at Santa Cruz; M.A., Golden Gate University</td>
<td>Business</td>
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<td>Chu, Dave, Behavioral Sciences</td>
<td>B.A., University of California, Irvine; M.A., Ph.D., California School of Professional Psychology/Alliant University</td>
<td>Behavioral Sciences</td>
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<td>Chu, Pauline</td>
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<td>Business</td>
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<td>Chui, Chyphyha, Elmor</td>
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<td>Chui, Eddie, Music</td>
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<td>Business</td>
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<td>Cirelli, Franco, Business</td>
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<td>Business</td>
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<td>Clark, Christopher, Graphic Communications</td>
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<td>Clark, Leslie</td>
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<tr>
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<tr>
<td>Coffey, Jerica, Child Development &amp; Family Studies</td>
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<td>Child Development &amp; Family Studies</td>
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<td>Cogdill, Charles, English as a Second Language</td>
<td>B.A., M.A., San Francisco State University</td>
<td>English as a Second Language</td>
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<td>Coles, Lynn, Older Adults</td>
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<td>Business</td>
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<td>Collins, Bruce, Transitional Studies</td>
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<td>Colvin, Gerald</td>
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<td>STRUNK, CHRISTOPHER</td>
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<td>STUART, JOHN B.</td>
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<td>SUNG-CHUN, SHIRLEY</td>
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<td>SUTTLE, PETER</td>
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<td>TACHIE, LAWRENCE W.</td>
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<td>TANG, GAYLE</td>
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<td>TENG, SHIRREE</td>
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<td>THOMPSON, GENE E.</td>
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<td>TIGHE, JOHN</td>
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