



PROJECT SURVIVE TREE, DESIGN BY DIANA WON, EMERGE STUDIO, 2016 (PHOTOGRAPH BY KATIE LOUX)

Designed by Diana Won  
Emerge Studio Visual Media Design Department

# OVERVIEW OF THE COLLEGE

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### Associate in Arts or Associate in Science Degree

City College of San Francisco, a two-year college, confers the degrees of Associate in Arts, Associate in Science, Associate in Arts for Transfer, and Associate in Science for Transfer 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, students 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 locally for international students, including an Intensive English Institute.

**Distance Education Courses.** Courses that are offered via online and hybrid instruction.

**Noncredit Courses.** Mostly open-entry/open-exit courses, many emphasizing vocational education, leading to employment or job upgrading but also including courses in English as a Second Language, elementary-level and secondary-level skills, workforce preparation, parent education, health and safety, home economics, citizenship for immigrants, and special courses for disabled persons and older adults.

**Community Service Offerings.** Workshops and other short-term offerings that serve community interests and for which fees are charged because no tax support is available.

### College Accreditation

City College of San Francisco is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, 331 J Street, Suite 200, Sacramento, CA 95814, (415) 506-0234, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. Additional information about accreditation, including the filing of complaints against member institutions, can be found at: [www.accjc.org](http://www.accjc.org). Information related to the College's accreditation is available at [www.ccsf.edu/accreditation](http://www.ccsf.edu/accreditation).

The following programs are subject to additional accreditation and certification standards:

#### Administration of Justice and Fire Science Department

ADMJ 85. PC 832 Arrest & Control  
Presenter number 4540

Accredited by:

California Commission on Peace Officer Standards and Training  
860 Stillwater Road, Suite 100  
West Sacramento, CA 95605  
916-227-3909

#### Fire Science Technology Program

Accredited by:

The California State Fire Marshal's Office of State Fire Training  
PO Box 944246  
Sacramento, CA 94244-2460  
<http://osfm.fire.ca.gov/training/accreditedacademies.php>

#### Aircraft Maintenance Technology Program

Certified by:

The Federal Aviation Administration  
US Department of Transportation  
Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591  
1-866-TELL-FAA (1-866-835-5322)

#### Culinary Arts and Food Service Management Programs

Accredited by:

The American Culinary Federation  
Send comments in writing to:  
American Culinary Federation  
6816 Southpoint Pkwy Ste 400  
Jacksonville, FL 32216  
(904) 824-4468  
Fax: (904) 940-0741  
Website: <https://www.acfchefs.org/ACF/Education/Accreditation/ACF/Education/Accreditation/>

#### Dental Assisting Program

Accredited by:

The Commission on Dental Accreditation  
American Dental Association  
211 East Chicago Avenue  
Chicago, Illinois 60611  
312-440-4653  
[www.ada.org/coda](http://www.ada.org/coda)  
Approved by:  
Dental Board of California  
2005 Evergreen Street, Suite 1550  
Sacramento, CA 95815  
877-729-7789 (Toll Free)  
916-263-2300 (Direct)

#### Diagnostic Medical Imaging (DMI) Program

Accredited by:

The Joint Review Committee on Education in Radiologic Technology  
20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
Phone: 312-704-5300  
Fax: 312-704-5304

**Accredited by:**

The Radiologic Health Branch of the California State Department of Public Health

1500 Capitol Avenue, 5th Floor, MS 7610

Sacramento, CA 95814-5006

Phone: (916) 327-5106 Fax: (916) 440-7999

**Approved by:**

American Registry of Radiologic Technologists

1255 Northland Dr.

St. Paul, MN 55120-1155

Phone: (651) 687-0048

**Health Educaion****Addiction & Recovery Counseling Certificate****Accredited by:**

The California Consortium of Addiction Programs and Professionals (CCAPP)

P.O. Box 214127

Sacramento, CA 95821

Phone: 916-338-9460

Fax: 916-338-9468

website: <https://ccappcredentialing.org>

**Health care Technology****EMT & Paramedic Programs**

The EMT Program is approved by the State of California EMS Authority and local approving EMS agency.

The City College of San Francisco Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs  
727-210-2350

[www.caahep.org](http://www.caahep.org)

To contact CoAEMSP: 214-703-8445 [www.coaemsp.org](http://www.coaemsp.org)

Commission on Accreditation of Allied Health Education Programs (CAAHEP)

9355 113th St. N #7709

Seminole, FL 33775

[mail@caahep.org](mailto:mail@caahep.org)

Committee on Accreditation of Educational Programs for the Emergency Medical Services Profession (CoAEMSP)

8301 Lakeview Parkway, Suite 111-312

Rowlett TX 75088

Phone: 214-703-8445

Fax: 214-703-8992

[www.coaemsp.org](http://www.coaemsp.org)

**Health Information Management Program (Associate in Science)****Accredited by:**

The Commission on Accreditation for Health Informatics and Information Management (CAHIIM)

200 East Randolph Street, Suite 5100

Chicago, IL 60601

(312) 235-3255

<http://www.cahiim.org>

**Medical Assisting Program****Accredited by:**

The Commission on Accreditation of Allied Health Education Programs (CAAHEP)

9355 113th St. N #7709

Seminole, FL 33775

[mail@caahep.org](mailto:mail@caahep.org)

<https://www.cognitofirms.com/CAAHEP2/FileAComplaint>

**Pharmacy Technician****Accredited by:**

American Society of Health-System Pharmacists

PO Box 38061

Baltimore, MD 21297-8061

Phone: 866-279-0681

Fax: 301-657-1251

On recommendation of the Medical Assisting Education Review Board (MAERB).

Phone: 727-210-2350

Fax: 727-210-2354

Website: [www.caahep.org](http://www.caahep.org)

Submit complaints: <http://www.caahep.org/File-Complaints/>

**Licensed Vocational Nursing****Licensed Vocational Nursing Program****Approved by:**

The Board of Vocational Nursing and Psychiatric Technicians

2535 Capitol Oaks Drive, Suite 205

Sacramento, CA 95833

916-263-7800

[bvnpt@dca.ca.gov](mailto:bvnpt@dca.ca.gov)

**Nursing Assistant & Home Health Aide Program****Accredited by:**

California Department of Public Health (CDPH)

Licensing and Certification Program (L&C)

Aide and Technician Certification Section (ATCS)

Training Program Review Unit (TPRU)

MS 3301, P.O. Box 997416

Sacramento, CA 95899-7416

Phone: (916) 327 2445

Fax no. (916) 552-8785

email: [tpru@cdph.ca.gov](mailto:tpru@cdph.ca.gov)

**Registered Nursing Program****Approved by:**

The California State Board of Registered Nursing

P.O. Box 944210

Sacramento, CA 94244-2100

[http://www.rn.ca.gov/about\\_us/whatisbrn.shtml](http://www.rn.ca.gov/about_us/whatisbrn.shtml),

Submit complaints:

Board of Registered Nursing, Attn: Complaint Intake

P.O. Box 944210

Sacramento, CA 94244-2100

Fax: 916-574-7693

**Student Affairs**

City College offers a wide variety of services which are designed to assist you with completing your educational goal. The Division of Student Affairs is responsible for Admissions and Records Credit and Non-Credit, CalWORKs, DSPS, EOPS, Financial Aid, Assessment Center, Outreach & High School Partnerships, Scholarships, Student Conduct & Discipline, Student Health Services, Student Activities, Completion Center, Student Equity, and Veteran's and the following counseling and tutoring departments: Academic Student Counseling, Transfer Counseling, Career Counseling and Multicultural Retention

## 4 Overview of the College

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Services. The following Student Resource Programs are available: City DREAM, Guardians Scholars, Homeless-At-Risk-Transitional Students (HARTS), Queer Resource, Students Supporting Students and Family Resource Center. Other services are available to assist you as you work toward attaining your educational goals.

### Counseling Services

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

### Career Services

CCSF students and alumni are entitled to all the career services provided by Career Development Counseling and the Career Services Office. Counselors will assist in choosing majors and careers, career assessment, exploration, planning and job search. Career services include individual career counseling, online advising, workshops, career success courses, and job resource information. Additional information can be found at [www.ccsf.edu/CareerServices](http://www.ccsf.edu/CareerServices).

### 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, sciences, business, social sciences, foreign languages, and other subjects. English instructors and tutors are available to help students in the Writing Success Project. The LAC Computer Lab offers access to the Internet and e-mail, and to educational CD, DVD, and software programs. College Success Courses are offered through the Learning Assistance Department. The Learning Assistance Center at the Mission Center offers many of these services. Tutoring is available for many subjects both in-person and online as well as synchronously and asynchronously.

### 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 campus and centers to facilitate communication, leadership, and advocacy. Further, the AS Executive Council appoints all student members to serve on participatory governance committees. There are active Associated Student Councils at various CCSF locations including: Chinatown/North Beach, Civic Center, Downtown, Evans, John Adams, Mission, Ocean and Southeast. Each Associated Student Council may adopt its own set of by-laws to guide local governance.

Each spring, the Associated Students elects a student trustee to represent its interests on the San Francisco Community College Board of Trustees.

The AS Ocean Campus funds diverse resource centers and programs including: the Bookloan Program, Dr. Betty Shabazz Family Resource Center, Guardian Scholars, HARTS, Queer Resource Center, Women's Resource Center, Student Health, Students Supporting Students (S3), and more than 60 clubs and campus organizations. There is a \$7 optional Student Activity Fee, payable at registration, to help support these centers and programs.

For information regarding the Associated Students, please contact the Student Activities Office in the Student Union Building, Room 205, Ocean Campus.

### Inter-Club Council (ICC)

Recognized and funded by the Associated Student Council - Ocean Campus, the ICC consists of elected representatives from over 60 clubs. For more information about an existing club or about starting a new club, please stop by the Student Union Room 209 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 participatory 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 clubs and 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: Chinatown/North Beach, Civic Center, Downtown, Evans, John Adams, Mission, Ocean, 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).

## Associate Degrees and Certificate Programs

### Administration of Justice and Fire Science

#### ASSOCIATE DEGREE

|  |    |
|--|----|
| Administration of Justice Major (AS-T) ..... | 70 |
| Administration of Justice Major (AS) .....   | 70 |
| Fire Science Technology Major (AS) .....     | 73 |

#### CREDIT CERTIFICATE

|   |    |
|---|----|
| Administration of Justice Certificate .....                     | 71 |
| Basic Fire Academy (Accredited Local Academy) Certificate ..... | 73 |
| Basic Police Officer Certificate .....                          | 71 |
| Company Officer Certificate .....                               | 74 |
| Crime Scene Investigation Certificate .....                     | 71 |
| Criminal and Constitutional Law Certificate .....               | 72 |
| Firefighter 1 Academy Certificate .....                         | 74 |
| Fire Protection Certificate .....                               | 74 |
| Homeland Security Certificate .....                             | 75 |
| Public Safety LGBTQ+ Awareness Certificate .....                | 72 |

### African American Studies

#### ASSOCIATE DEGREE

|   |    |
|---|----|
| Social Justice Studies: African American Studies Major (AA-T) ... | 80 |
| Black/African American Studies Major (AA) .....                   | 81 |

#### CREDIT CERTIFICATE

|  |    |
|--|----|
| Black/African American Studies Certificate ..... | 82 |
|--|----|

### Aircraft Maintenance Technology

#### ASSOCIATE DEGREE

|   |    |
|---|----|
| Aircraft Powerplant Maintenance Technology Major (AS) ..... | 86 |
| Airframe Maintenance Technology Major (AS) .....            | 86 |

#### CREDIT CERTIFICATE

|  |    |
|--|----|
| Aircraft Powerplant Maintenance Technology Certificate ..... | 87 |
| Airframe-Maintenance Technology Certificate .....            | 87 |

### Anthropology

#### ASSOCIATE DEGREE

|                                 |    |
|---------------------------------|----|
| Anthropology Major (AA-T) ..... | 89 |
|---------------------------------|----|

### Architecture

#### ASSOCIATE DEGREE

|  |    |
|--|----|
| Architecture Major (AS) .....            | 91 |
| Construction Management Major (AS) ..... | 92 |
| Interior Design Major (AS) .....         | 92 |

#### CREDIT CERTIFICATE

|  |    |
|--|----|
| Architectural Drafting Technology Certificate .....        | 93 |
| Collaborative Design Certificate* .....                    | 94 |
| Construction Management: Advanced Skills Certificate ..... | 93 |
| Construction Management: Core Skills Certificate .....     | 94 |
| Core Skills Interior Design Certificate .....              | 94 |

### Art

#### ASSOCIATE DEGREE

|                                |    |
|--------------------------------|----|
| Art History Major (AA-T) ..... | 97 |
|--------------------------------|----|

|                                |    |
|--------------------------------|----|
| Studio Arts Major (AA-T) ..... | 97 |
|--------------------------------|----|

### Asian American Studies

#### ASSOCIATE DEGREE

|   |     |
|---|-----|
| Social Justice Studies: Asian American Studies Major (AA-T) ... | 104 |
| Asian American Studies Major (AA) .....                         | 105 |

#### CREDIT CERTIFICATE

|  |     |
|--|-----|
| Asian American Studies Certificate ..... | 105 |
|--|-----|

### Asian Studies

#### CREDIT CERTIFICATE

|                                 |     |
|---------------------------------|-----|
| Asian Studies Certificate ..... | 107 |
|---------------------------------|-----|

### Automotive/Motorcycle, Construction, and Building Maintenance

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Autobody Repair and Refinishing Major (AS) ..... | 112 |
| Automotive Technician Major (AS) .....           | 111 |
| Construction Major (AS) .....                    | 114 |
| Motorcycle Technician Major (AS) .....           | 113 |

#### CREDIT CERTIFICATE

|   |     |
|---|-----|
| Autobody Repair and Refinishing Certificate .....     | 113 |
| Automotive Hybrid and EV Technology Certificate ..... | 112 |
| Automotive Technician Certificate .....               | 112 |
| Carpentry Certificate .....                           | 114 |
| Construction Certificate .....                        | 115 |
| Motorcycle Technician Certificate .....               | 113 |
| Utility Technician/Helper Certificate .....           | 112 |

#### NONCREDIT CERTIFICATE

|  |     |
|--|-----|
| Custodial Training Certificate of Completion .....               | 115 |
| Custodian for Health Care Industry Certificate of Completion ... | 115 |

### Biological Sciences

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Biology Major (AS-T) .....                                     | 121 |
| Biological Sciences Major (AS) .....                           | 122 |
| Biological Sciences (Emphasis Health Science) Major (AS) ..... | 122 |
| Environmental Science Major (AS) .....                         | 123 |

#### CREDIT CERTIFICATE

|  |     |
|--|-----|
| Foundations in Biological Sciences Certificate ..... | 124 |
| Science Core for Nursing Certificate .....           | 124 |

### Broadcast Electronic Media Arts

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Film, Television & Electronic Media Major (AS-T) ..... | 129 |
|--|-----|

#### CREDIT CERTIFICATE

|  |     |
|--|-----|
| Audio and Video for the Web Certificate .....                        | 130 |
| AV Technologist Certificate .....                                    | 130 |
| Broadcast Motion Graphics Certificate .....                          | 130 |
| Entrepreneurship and Innovation in Broadcast Media Certificate ..... | 131 |
| Foundations in Broadcast Electronic Media Arts Certificate .....     | 131 |
| Live Sound Certificate .....   | 132 |
| Multimedia Broadcast Journalism Certificate .....                    | 132 |
| Multimedia Content Creation for the Internet Certificate .....       | 132 |
| Sound Design Certificate .....                                       | 133 |

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|   |     |
|---|-----|
| Sound Recording Arts Certificate .....              | 133 |
| Television Production Certificate .....             | 133 |
| Video Editing and Post Production Certificate ..... | 134 |

### Business

#### ASSOCIATE DEGREE

|   |     |
|---|-----|
| Business Administration Major (AS-T) .....          | 145 |
| Business Administration 2.0 Major (AS-T) .....      | 146 |
| Accounting Major (AS) .....                         | 139 |
| Administrative Support Major (AS) .....             | 141 |
| California Real Estate Major (AS) .....             | 150 |
| Finance Major (AS) .....                            | 145 |
| General Business Major (AS) .....                   | 146 |
| Human Resources Management Major (AS) .....         | 147 |
| Marketing Major (AS) .....                          | 149 |
| Paralegal/Legal Studies Major (AS) .....            | 149 |
| Supervision and Management Program Major (AS) ..... | 147 |

#### CREDIT CERTIFICATE

|   |     |
|---|-----|
| California Real Estate Certificate .....                      | 151 |
| Computer Accounting Certificate .....                         | 139 |
| Construction Office Administration Certificate .....          | 141 |
| Entrepreneurship and Innovation in Business Certificate ..... | 144 |
| Finance Certificate .....                                     | 145 |
| General Business Certificate .....                            | 147 |
| Human Resources Management Certificate .....                  | 148 |
| Marketing Certificate .....                                   | 149 |
| Microsoft Office Specialist Certificate .....                 | 142 |
| Office Technology Certificate .....                           | 142 |
| Paralegal/Legal Studies Certificate .....                     | 150 |
| Supervision and Management Certificate .....                  | 148 |

#### NONCREDIT CERTIFICATE

|  |     |
|--|-----|
| Accounting Assistant & Core Skills<br>Certificate of Completion .....                      | 139 |
| Bookkeeping Certificate of Completion .....  | 140 |
| Business Communication Certificate of Completion .....                                     | 142 |
| Business Information Worker (BIW)<br>Certificate of Completion .....                       | 142 |
| Cloud-Based Accounting Systems<br>Certificate of Completion .....                          | 140 |
| Digital Literacy & Core Skills Certificate of Completion .....                             | 143 |
| Excel Professional I Microsoft Office<br>Specialist (MOS) Certificate of Completion .....  | 143 |
| Excel Professional II Microsoft Office<br>Specialist (MOS) Certificate of Completion ..... | 143 |
| Income Tax Fundamentals Certificate of Completion .....                                    | 140 |
| Medisoft for Business Certificate of Completion .....                                      | 144 |
| QuickBooks & Spreadsheets for Accounting Certificate of<br>Completion .....                | 141 |
| Small Business Certificate of Completion .....   | 151 |
| Website Development for E-Business<br>Certificate of Completion .....                      | 144 |

### Chemistry

#### CREDIT CERTIFICATE

|                             |     |
|-----------------------------|-----|
| Chemistry Certificate ..... | 165 |
|-----------------------------|-----|

### Child Development and Family Studies

#### ASSOCIATE DEGREE

|   |     |
|---|-----|
| Child and Adolescent Development Major (AA-T) ..... | 167 |
| Early Childhood Education Major (AS-T) .....        | 168 |
| Child Development & Family Studies Major (AS) ..... | 168 |

#### CREDIT CERTIFICATE

|  |     |
|--|-----|
| Child Development: Administration Certificate .....                              | 169 |
| Child Development: Family Childcare Certificate .....                            | 169 |
| Child Development: Infant/Toddler Care Certificate .....                         | 170 |
| Child Development: Pre-Teacher Certificate .....                                 | 170 |
| Child Development: Professional Development<br>and Advocacy Certificate .....    | 170 |
| Child Development: School-Age Care Certificate .....                             | 171 |
| Child Development: Violence Intervention in Early<br>Childhood Certificate ..... | 171 |
| Child Development: Youth Worker Certificate .....                                | 172 |
| ECE Associate Teacher Certificate .....  | 172 |
| ECE Practitioner Certificate .....   | 172 |
| Introduction to Special Education Certificate .....                              | 173 |
| Special Education TK-12 Certificate .....  | 173 |
| Special Education: ECE Intervention Certificate .....                            | 173 |

### Chinese

#### ASSOCIATE DEGREE

|                                     |     |
|-------------------------------------|-----|
| Chinese (Mandarin) Major (AA) ..... | 181 |
|-------------------------------------|-----|

#### CREDIT CERTIFICATE

|                                      |     |
|--------------------------------------|-----|
| Chinese (Mandarin) Certificate ..... | 182 |
|--------------------------------------|-----|

### Cinema

#### ASSOCIATE DEGREE

|   |     |
|---|-----|
| Film, Television & Electronic Media Major (AS-T)* ..... | 186 |
| Cinema Production Major (AS) .....                      | 185 |
| Film Studies Major (AA) .....                           | 186 |

#### CREDIT CERTIFICATE

|  |     |
|--|-----|
| Cinema Foundations Certificate .....       | 186 |
| Cinematography Certificate .....           | 186 |
| Directing Certificate .....                | 187 |
| Film Studies Certificate .....             | 187 |
| Pre-Production/Producing Certificate ..... | 188 |
| Scriptwriting Certificate .....            | 188 |

### Communication Studies

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Communication Studies Major (AA-T) ..... | 191 |
|--|-----|

### Computer Networking and Information Technology

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Computer Networking and Information<br>Technology Major (AS) ..... | 193 |
|--|-----|

#### CREDIT CERTIFICATE

|   |     |
|---|-----|
| Advanced Cybersecurity Certificate .....              | 195 |
| Advanced Web Development Techniques Certificate ..... | 194 |
| Computer Technical Support Certificate .....          | 194 |
| Computer Technician Certificate .....                 | 194 |
| Cybersecurity Certificate .....                       | 194 |

Front-End Web Development Certificate ..... 195  
 Fundamentals of Networking Certificate ..... 195  
 Fundamentals of Technical Support Certificate ..... 195  
 JavaScript Specialist Certificate ..... 196  
 Internet of Things Certificate ..... 196  
 Maker Studies Certificate\* ..... 196  
 Microsoft Windows Networking Certificate ..... 196  
 Mobile Web App Development Certificate ..... 197  
 Network Security Certificate ..... 197  
 NextGen Automotive and IT Technician Certificate ..... 197  
 Routing and Switching (Cisco) Certificate ..... 198  
 Security for Web App Development Certificate ..... 198  
 Wireless Networking Certificate ..... 198

**Computer Science**

ASSOCIATE DEGREE  
 Computer Science Major (AS) ..... 204  
 CREDIT CERTIFICATE  
 Android App Programming Certificate ..... 205  
 Build Automation for DevOps & QA Certificate ..... 205  
 Computer Programming: C++ Certificate ..... 206  
 Computer Programming: Java Certificate ..... 206  
 Data Analytics Fundamentals Certificate ..... 206  
 Database Administration Certificate ..... 207  
 Databases for Developers Certificate ..... 207  
 Game and Simulation Programming Certificate ..... 207  
 iPhone App Programming Certificate ..... 208  
 Linux Administration Certificate ..... 208  
 Web Application Programming Certificate ..... 208

**CSU GE-Breadth**

CREDIT CERTIFICATE  
 CSU GE-Breadth Certificate ..... 213

**Culinary Arts and Hospitality Studies**

ASSOCIATE DEGREE  
 Hospitality Management Major (AS-T) ..... 217  
 Culinary Arts Management Major (AS) ..... 214  
 Food Service Management Major (AS) ..... 216  
 Hospitality Management Major (AS) ..... 217  
 CREDIT CERTIFICATE  
 Culinary Arts and Hospitality Certificate ..... 218  
 Entrepreneurship and Innovation in Hospitality  
 Management Certificate ..... 218  
 NONCREDIT CERTIFICATE  
 Baking and Pastry Noncredit Certificate ..... 222

**Dental Assisting**

ASSOCIATE DEGREE  
 Dental Assisting Major (AS) ..... 223  
 CREDIT CERTIFICATE  
 Dental Assisting Certificate ..... 225

**Earth Sciences**

ASSOCIATE DEGREE  
 Geography Major (AA-T) ..... 229

Environmental Studies Major (AS) ..... 228  
 Geology Major (AS-T) ..... 230  
 Oceanography Major (AS) ..... 230  
 CREDIT CERTIFICATE  
 Geographic Information Systems (GIS) Certificate ..... 231

**Economics**

ASSOCIATE DEGREE  
 Economics Major (AA-T) ..... 234

**Engineering and Technology**

ASSOCIATE DEGREE  
 Biotechnology Major (AS) ..... 236  
 Engineering Major (AS) ..... 236  
 Electronic Engineering Technology Major (AS) ..... 238  
 Mechanical Engineering Technology Major (AS) ..... 238  
 CREDIT CERTIFICATE  
 Basic Electronics Certificate ..... 243  
 Biotechnology Certificate ..... 240  
 Biotechnology Lab Assistant Certificate ..... 240  
 Biotechnology Work Experience Certificate ..... 241  
 Computer Aided Design (CAD)-Architectural Certificate ..... 244  
 Computer Aided Drafting (CAD) Certificate ..... 244  
 Engineered Plumbing Systems Certificate ..... 242  
 Heating, Ventilation, Air-Conditioning and  
 Refrigeration Certificate ..... 240  
 Intermediate Electronics Certificate ..... 244  
 Machining Technology Level I Certificate ..... 242  
 Machining Technology Level II Certificate ..... 243  
 Manufacturing and Fabrication Certificate ..... 245  
 Stem Cell Technology Certificate ..... 241  
 Sustainability Certificate ..... 243  
 Welding Technology Level I Certificate ..... 245

**English**

ASSOCIATE DEGREE  
 English Major (AA-T) ..... 252  
 English Major (AA) ..... 253  
 CREDIT CERTIFICATE  
 Creative Writing Certificate ..... 253  
 Humanities: Ideas, Religions, and the Arts Certificate ..... 254

**English as a Second Language**

CREDIT CERTIFICATE  
 Advanced Academic English as a Second  
 Language Certificate ..... 258  
 Advanced English as a Second Language Oral  
 Communication Skills Certificate ..... 259  
 Guided Pathways ESL Milestone in Business Certificate ..... 259  
 Guided Pathways ESL Milestone in  
 Child Development Certificate ..... 259  
 Guided Pathways ESL Milestone in Mathematics Certificate ..... 260  
 NONCREDIT CERTIFICATE  
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 ESL Literacy Certificate of Competency ..... 262  
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| ESL Beginning High Oral Communication Skills Certificate of Competency . . . . .   | 264 |
| ESL Beginning Low Certificate of Competency . . . . .                              | 263 |
| ESL Beginning Low Focus Skills Certificate of Competency . . . . .                 | 263 |
| ESL Beginning Low Oral Communication Skills Certificate of Competency . . . . .    | 263 |
| ESL Beginning Workplace Skills Certificate of Competency . . . . .                 | 267 |
| ESL Computer Assisted Certificate of Competency . . . . .                          | 264 |
| ESL Intermediate High Certificate of Competency . . . . .                          | 265 |
| ESL Intermediate High Focus Skills Certificate of Competency . . . . .             | 265 |
| ESL Intermediate Low Certificate of Competency . . . . .                           | 265 |
| ESL Intermediate Low Focus Skills Certificate of Competency . . . . .              | 265 |
| ESL Intermediate Oral Communication Skills Certificate of Competency . . . . .     | 266 |
| ESL Intermediate Workplace Skills Certificate of Competency . . . . .              | 267 |
| ESL Pre-Academic Certificate of Competency . . . . .                               | 266 |
| ESL Vocational Training Certificate of Competency . . . . .                        | 267 |
| High Intermediate ESL for Health Professionals Certificate of Competency . . . . . | 268 |

### Environmental Horticulture and Floristry

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Commercial Cut-Flower and Greenhouse Production Major (AS) . . . . . | 273 |
| Floristry Major (AS) . . . . .                                       | 276 |
| Landscape Gardening and Contracting Major (AS) . . . . .             | 273 |
| Nursery and Garden-Center Operation Major (AS) . . . . .             | 274 |

#### CREDIT CERTIFICATE

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|---|-----|
| Commercial Cut-Flower Greenhouse Production Certificate . . . . . | 274 |
| Floral and Special Events Coordinator Certificate . . . . .       | 276 |
| Landscape Construction Certificate . . . . .                      | 275 |
| Landscape Design Certificate . . . . .                            | 275 |
| Landscape Maintenance Certificate . . . . .                       | 275 |
| Nursery and Garden-Center Operation Certificate . . . . .         | 275 |
| Oriental Floral Design Certificate . . . . .                      | 277 |
| Retail Floristry Certificate . . . . .                            | 277 |

### Fashion

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Fashion Design Major (AS) . . . . .        | 282 |
| Fashion Merchandising Major (AS) . . . . . | 281 |

#### CREDIT CERTIFICATE

|   |     |
|---|-----|
| Apparel Construction Certificate . . . . .  | 282 |
| Entrepreneurship and Innovation in Fashion Design and Merchandising Certificate . . . . . | 283 |
| Fashion Design Certificate . . . . .  | 283 |
| Fashion Illustration Certificate . . . . .  | 283 |
| Fashion Merchandising Certificate . . . . .   | 284 |
| Fashion Styling and Personal Styling Certificate . . . . .                                | 284 |
| Patternmaking Certificate . . . . .   | 284 |

### French

#### ASSOCIATE DEGREE

|                             |     |
|-----------------------------|-----|
| French Major (AA) . . . . . | 288 |
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#### CREDIT CERTIFICATE

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| French Certificate . . . . . | 288 |
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### Health Care Technology

#### ASSOCIATE DEGREE

|   |     |
|---|-----|
| Cardiovascular Technician/Echocardiography Major (AS) . . . . . | 292 |
| Electrocardiography Technician Major (AS) . . . . .             | 292 |
| Health Information Technology Major (AS) . . . . .              | 295 |
| Medical Assisting Major (AS) . . . . .                          | 298 |
| Medical Administrative Assisting Major (AS) . . . . .           | 299 |
| Paramedic Major (AS) . . . . .                                  | 291 |

#### CREDIT CERTIFICATE

|  |     |
|--|-----|
| ECG Technician Certificate . . . . .                       | 293 |
| Emergency Medical Technician Certificate . . . . .         | 293 |
| Health Information Technology . . . . .                    | 294 |
| Health Information Clerk I Certificate . . . . .           | 295 |
| Health Information Clerk II Certificate . . . . .          | 296 |
| Health Information Coding Specialist Certificate . . . . . | 296 |
| Health Information Technology Certificate . . . . .        | 297 |
| Health Unit Coordinator Certificate . . . . .              | 297 |
| Phlebotomy Certificate . . . . .                           | 297 |
| Medical Assisting Program . . . . .                        | 298 |
| Medical Assisting Certificate . . . . .                    | 300 |
| Medical Biller Certificate . . . . .                       | 300 |
| Medical Clinic Assisting Certificate . . . . .             | 301 |
| Medical Evaluation Assistant Certificate . . . . .         | 301 |
| Medical Receptionist Certificate . . . . .                 | 302 |
| Paramedic Certificate . . . . .                            | 293 |

### Health Education

#### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Nutrition and Dietetics (AS-T) . . . . .     | 309 |
| Public Health Science Major (AS-T) . . . . . | 310 |
| Health Education Major (AS) . . . . .        | 311 |

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|   |     |
|---|-----|
| Addiction and Recovery Counseling Certificate . . . . . | 311 |
| Community Health Worker Certificate . . . . .           | 312 |
| Community Mental Health Worker Certificate . . . . .    | 313 |
| Healthcare Interpreting Certificate . . . . .           | 313 |
| Peer Health Educator Certificate . . . . .              | 314 |
| Sexual Health Educator Certificate* . . . . .           | 314 |
| Trauma Prevention and Recovery Certificate* . . . . .   | 314 |
| Child Development: Youth Worker Certificate* . . . . .  | 314 |

### History

#### ASSOCIATE DEGREE

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### IGETC

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## Interdisciplinary Studies

### ASSOCIATE DEGREE

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|--|-----|
| Social Justice Studies: Ethnic Studies Major (AA-T) .....                          | 325 |
| Critical Middle East/South West Asia and North<br>Africa Studies Major (AA) .....  | 323 |
| Critical Pacific Islands & Oceania Studies Major (AA) .....                        | 324 |
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| Collaborative Design Certificate* .....  | 327 |
| Critical Middle East/South West Asia and North<br>Africa Studies Certificate ..... | 327 |
| Critical Pacific Islands & Oceania Studies Certificate .....                       | 327 |
| Diversity and Social Justice Certificate .....                                     | 328 |
| Trauma Prevention and Recovery Certificate .....                                   | 328 |

## Italian

### ASSOCIATE DEGREE

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| Italian Major (AA) ..... | 332 |
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| Italian Certificate ..... | 333 |
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## Japanese

### ASSOCIATE DEGREE

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| Japanese Major (AA) ..... | 334 |
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### CREDIT CERTIFICATE

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| Japanese Certificate ..... | 335 |
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## Journalism

### ASSOCIATE DEGREE

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| Journalism Major (AA-T) ..... | 337 |
| Journalism Major (AA) .....   | 337 |

### CREDIT CERTIFICATE

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|---|-----|
| Data Journalism Certificate .....                               | 338 |
| Editorial Management and Design Certificate .....               | 338 |
| Entrepreneurship and Innovation in Journalism Certificate ..... | 339 |

## Labor and Community Studies

### ASSOCIATE DEGREE

|   |     |
|---|-----|
| Social Justice Studies: General - Labor and<br>Community Studies Major (AA-T) ..... | 341 |
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### CREDIT CERTIFICATE

|  |     |
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| Labor and Community Organizing Certificate ..... | 342 |
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## Latin American and Latino/a Studies

### ASSOCIATE DEGREE

|   |     |
|---|-----|
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| Latin American & Latino/a Studies Major (AA) .....  | 344 |

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|   |     |
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| Latin American & Latino/a Studies Certificate ..... | 345 |
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## Lesbian, Gay, Bisexual, and Transgender Studies

### ASSOCIATE DEGREE

|  |     |
|--|-----|
| Social Justice Studies: General - Feminist, Queer, and<br>Trans Studies Major (AA-T) ..... | 348 |
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### Lesbian, Gay, Bisexual and Transgender

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|--------------------------|-----|
| Studies Major (AA) ..... | 349 |
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### CREDIT CERTIFICATE

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| Public Safety LGBTQ+ Awareness Certificate* ..... | 350 |
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## Liberal Arts and Science

### ASSOCIATE DEGREE

|  |     |
|--|-----|
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| Communication Emphasis (AA)<br>Associate in Arts in Communication .....                                      | 357 |
| Science and Mathematics Emphasis (AS)<br>Associate in Science in Science and Mathematics .....               | 358 |
| Social and Behavioral Sciences Emphasis (AS)<br>Associate in Science in Social and Behavioral Sciences ..... | 359 |

## Library Information Technology

### ASSOCIATE DEGREE

|   |     |
|---|-----|
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### CREDIT CERTIFICATE

|  |     |
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| Library Information Technology Certificate ..... | 362 |
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## Maker Studies

### CREDIT CERTIFICATE

|  |     |
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| Maker Studies Certificate .....        | 364 |

## Mathematics

### ASSOCIATE DEGREE

|                                |     |
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| Mathematics Major (AS-T) ..... | 365 |
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## Music

### CREDIT CERTIFICATE

|  |     |
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| Computers and Music Certificate .....  | 368 |
| Music Certificate .....                | 368 |
| Music and Technology Certificate ..... | 369 |

## Nursing, Registered

### ASSOCIATE DEGREE

|                                     |     |
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| Registered Nursing Major (AS) ..... | 374 |
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## Nursing, Licensed Vocational

### CREDIT CERTIFICATE

|  |     |
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| Home Health Aide/Nurse Assistant Certificate ..... | 379 |
| Vocational Nursing Certificate .....               | 379 |

## Philippine Studies

### ASSOCIATE DEGREE

|                                     |     |
|-------------------------------------|-----|
| Philippine Studies Major (AA) ..... | 383 |
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### CREDIT CERTIFICATE

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| Filipino (Tagalog) Certificate ..... | 383 |
| Philippine Studies Certificate ..... | 383 |

## Philosophy

### ASSOCIATE DEGREE

|                               |     |
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| Philosophy Major (AA-T) ..... | 386 |
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## Photography

### ASSOCIATE DEGREE

|                              |     |
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| Photography Major (AS) ..... | 387 |
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CREDIT CERTIFICATE

Architectural Photography Certificate ..... 388  
 Black and White Darkroom Photography Certificate ..... 389  
 Collaborative Design Certificate\* ..... 392  
 Digital Photography Certificate ..... 389  
 Motion Photography Studio or Field Certificate ..... 389  
 Photography Criticism Certificate ..... 390  
 Photography Digital Technician Certificate ..... 390  
 Photography Studio Practice Certificate ..... 391  
 Portrait Lighting Certificate ..... 391  
 Reportage Photography Certificate ..... 391  
 Studio Lighting Certificate ..... 392

**Physical Education and Dance**

ASSOCIATE DEGREE

Kinesiology Major (AA-T) ..... 396  
 Dance Performance Art Major (AA) ..... 397

CREDIT CERTIFICATE

Athletic Coaching Certificate ..... 400  
 Dance Group Fitness and Conditioning Certificate ..... 398  
 Dance--African Heritage Dance Performance Certificate ..... 398  
 Dance--Classical Dance Performance Certificate ..... 398  
 Dance--Social Dance Forms Certificate ..... 399  
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**Physics**

ASSOCIATE DEGREE

Physics Major (AS) ..... 417

**Political Science**

ASSOCIATE DEGREE

Political Science Major (AA-T) ..... 420

**Psychology**

ASSOCIATE DEGREE

Psychology Major (AA-T) ..... 421  
 Cannabis Studies Major (AA) ..... 422

**Radiologic Sciences**

ASSOCIATE DEGREE

Diagnostic Medical Imaging Major (AS) ..... 425

**Sociology**

ASSOCIATE DEGREE

Social Work Major (AA-T) ..... 428  
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**Spanish**

ASSOCIATE DEGREE

Spanish Major (AA-T) ..... 430  
 Spanish Major (AA) ..... 431

CREDIT CERTIFICATE

Spanish Certificate ..... 431  
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**Theatre Arts**

ASSOCIATE DEGREE

Theatre Arts Major (AA-T) ..... 435

CREDIT CERTIFICATE

Acting Certificate ..... 436  
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**Transitional Studies**

HS DIPLOMA

CCSF High School Diploma Program HS Diploma ..... 442

**Visual Media Design**

ASSOCIATE DEGREE

Graphic Design Major (AA) ..... 445

CREDIT CERTIFICATE

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**Women's and Gender Studies**

ASSOCIATE DEGREE

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 Women's and Gender Studies, Major (AA) ..... 453

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Sexual Health Educator Certificate ..... 453