Building for Our Future!

Mt. San Antonio College
2009-10 Catalog
ACKNOWLEDGMENTS
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ACCREDITATION
Mt. San Antonio College is reviewed and accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges. This accreditation authorizes the College to offer courses that parallel the first two years of the curricula for state universities. The ACCJC can be contacted in writing at 10 Commercial Boulevard, Suite 204, Novato, California 94949 or by phone at (415) 306-0234.

CATALOG CONTENT CHANGES
Mt. San Antonio College has made every effort to assure the accuracy of the information in this Catalog. Students and others should note that policies, rules, procedures, and regulations change and that these changes may alter the information in this publication. This Catalog is not intended to be a complete statement of policies, rules, procedures, and regulations. More current or complete information may be obtained from the appropriate administrative office and the online version of this Catalog.

The College reserves the right to change, without notice, any academic or other requirement, course offering, or course content contained in this Catalog.

The 2009-10 Catalog does not constitute a contract or terms of a contract between the student and the College.

Mt. San Antonio College
1100 North Grand Avenue
Walnut, California 91789

(909) 594-5611
TTY# (909) 594-3447
(Hearing Impaired)

www.mtsac.edu
Building for the Future

As this catalog cover design illustrates, Mt. San Antonio College continues to build for the academic future of its students and the community-at-large. Not only are we transforming the campus into a more inviting, greener, and high-tech learning environment, we are also engaged in an ongoing effort to enrich our programs and services to meet the various needs of our diverse student population.

In this catalog, you will find more than 200 degree and certificate programs, as well as a full range of basic skills and personal development courses. I encourage you to use the catalog as your planning and resource guide to explore the vast scope of opportunities, services and programs that Mt. SAC offers.

We offer excellent university transfer, career and lifelong learning programs that empower you with the knowledge and skills needed to succeed in a diverse and interconnected world. Our curriculum is in step with the fast-changing needs of today's dynamic employment sectors.

As the largest of California’s 110 community colleges, Mt. SAC regards itself as the “College of Champions.” In virtually every academic, athletic and cultural discipline, our students have excelled to the top, garnering local, state, national and even international honors. We are very proud of these accomplishments and the distinction that both faculty and student efforts continue to bring to the College.

We remain committed to helping you build your future.

Dr. John S. Nixon
President & CEO

BOARD OF TRUSTEES
Fred Chyr, President
Dr. David K. Hall, Vice President
Judy Chen Haggerty, Esq., Clerk
Rosanne M. Baden, Member
Dr. Manuel Baca, Member
Xavier Padilla, Student Trustee
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*2009-10 Mt. San Antonio College Catalog*
## 2009-10 College Calendar

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<tbody>
<tr>
<td>July 4</td>
<td>Independence Day (campus closed)</td>
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<td>July 6</td>
<td>International student admission application due for Fall Semester</td>
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<tr>
<td>July 22</td>
<td>Fall Semester Credit and Continuing Education registration opens</td>
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<td>August 23</td>
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<td>August 24</td>
<td>Fall Semester begins</td>
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<td>September 4</td>
<td>Last day to add a class</td>
</tr>
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<td>September 4</td>
<td>Last day to change residency for Fall Semester</td>
</tr>
<tr>
<td>September 7</td>
<td>Labor Day (campus closed)</td>
</tr>
<tr>
<td>September 11</td>
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<tr>
<td>September 25</td>
<td>Last day to change grading option for 16-week classes</td>
</tr>
<tr>
<td>October 9</td>
<td>Last day to petition for Fall Semester graduation</td>
</tr>
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<td>October 30</td>
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**COLLEGE DIRECTORY**

The main College telephone number is (909) 594-5611.

After you have reached the College, dial your desired extension.

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2009-10 Mt. San Antonio College Catalog ix
Section 1

The College
Mt. SAN ANTONIO COLLEGE

Mt. San Antonio College (Mt. SAC) is a public community college that offers a diversified educational program designed to prepare students for success in today's diverse economic professional, technical and cultural sectors. The objectives of the education program are to:

- prepare students for transfer to baccalaureate-level colleges and universities;
- increase vocational competence resulting in usable and marketable occupational skills;
- provide a general education emphasizing basic skills and appreciation of our shared scientific, technological, historical and artistic heritage;
- promote continuing education and lifelong learning;
- assist the student through guidance to know and develop his/her abilities in relation to his/her potential; and
- provide community service and adult education.

The College offers courses of study through a semester system. Each semester, Fall and Spring, is 16 weeks in length, while summer and winter sessions are six weeks long. Many courses are offered in an accelerated mode.

Instruction at Mt. SAC is organized under a divisional structure with departments within each division. At present, the College has eight instructional divisions within which are 44 departments.

HISTORY

The Mt. San Antonio Community College District was created in December, 1945, when voters of four local high school districts approved the formation of a community college district. Initially known as Eastern Los Angeles County Community College, the institution was later renamed Mt. San Antonio College after the most visible snow-capped mountain (popularly known as Mt. Baldy) in the distance behind the campus.

The 421-acre campus was originally part of the 48,000-acre La Puente Rancho. During World War II, the facility was converted into an Army hospital and later a Navy hospital.

Mt. SAC opened in the fall of 1946 with 635 students occupying a few Spanish-tiled buildings and temporary Navy barracks clustered below the San Jose Hills. Walnut, not yet an incorporated city, consisted of very little except dirt roads, cacti, and grasslands covered in the spring with wild mustard grass.

Not surprisingly, the growth of Mt. SAC has mirrored that of the local area. The College now serves the communities of Baldwin Park, Bassett, Charter Oak, Covina, Diamond Bar, the southern portion of Glendora, Hacienda Heights, City of Industry, Irwindale, La Puente, La Verne, Pomona, Rowland Heights, San Dimas, Valinda, Walnut, and West Covina.

Mt. SAC has emerged as a leader in education not only in the San Gabriel Valley, but in the state. It is California's largest, single-campus community college with a combined Credit, Continuing Education, and Community Service student enrollment of over 65,000. In 2006, Mt. SAC proudly celebrated 60 years of educational excellence. The College will continue to offer access to quality programs and services as well as provide an environment for educational excellence throughout the 21st Century.

MISSION, VISION AND VALUES

Mission

The mission of Mt. San Antonio College is to welcome all students and to support them in achieving their personal, educational and career goals in an environment of academic excellence.

Vision

It is the vision of Mt. San Antonio College:

- to become a premier community college
- to be a leader in teaching, learning, programs and services
- to provide access to quality education, focusing on student success within a climate of integrity and respect
- to consistently exceed the expectations of our students, staff, and community

Core Values

- INTEGRITY
  We treat each other honestly, ethically, and responsibly in an atmosphere of trust.
- DIVERSITY
  We respect and welcome all differences, and we foster equal participation throughout the campus community.
- COMMUNITY BUILDING
  We work in responsible partnerships through open communication, caring, and a cooperative spirit.
- STUDENT FOCUS
  We address the needs of students and the community in our planning and actions.
- LIFELONG LEARNING
  We promote the continuing pursuit of high educational goals through equal access to excellence in both teaching and support services.
- POSITIVE SPIRIT
  We work harmoniously, show compassion, and take pride in our work.
### The College

#### BOARD OF TRUSTEES
- President: Fred Chyr
- Vice President: Dr. David K. Hall
- Clerk: Judy Chen Haggerty, Esq.
- Member: Rosanne Bader
- Member: Dr. Manuel Baca
- Student Trustee: Xavier Padilla
- College President & CEO: Dr. John S. Nixon

#### ADMINISTRATION

<table>
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<th>Administrative Services</th>
<th>Ext. 4230</th>
</tr>
</thead>
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<tr>
<td>Vice President, Administrative Services</td>
<td>Michael Gregoryk</td>
</tr>
<tr>
<td>Associate Vice President</td>
<td>Linda Baldwin</td>
</tr>
<tr>
<td>Administrative Director, Auxiliary Services</td>
<td>Jay Devers</td>
</tr>
<tr>
<td>Director, Auxiliary Services Accounting</td>
<td>Sid Young</td>
</tr>
<tr>
<td>Manager, Custodial Services</td>
<td>Ken McAlpin</td>
</tr>
<tr>
<td>Director, Facilities Planning and Management</td>
<td>Gary Nellesen</td>
</tr>
<tr>
<td>Assistant Director, Facilities Planning and Management</td>
<td>Becky Mitchell</td>
</tr>
<tr>
<td>Facilities Project Manager</td>
<td>Roger Sned \n</td>
</tr>
<tr>
<td>Assistant Director, Fiscal Services</td>
<td>Rosa Royce</td>
</tr>
<tr>
<td>Director, Food Services/Satellite Operations</td>
<td>Becky Carr</td>
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<td>Director, Grounds and Transportation</td>
<td>Carol Baker</td>
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<td>Director, Maintenance</td>
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<td>Donna Evans</td>
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<tr>
<td>Director, Public Safety</td>
<td>Jeff Parker</td>
</tr>
<tr>
<td>Assistant Director, Public Safety</td>
<td>Michael Montoya</td>
</tr>
<tr>
<td>Director, Purchasing</td>
<td>Tom Meikle</td>
</tr>
<tr>
<td>Director, Safety, Health Benefits, and Risk Management</td>
<td>Karen Saldana</td>
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<tr>
<td>Director, Technical Services</td>
<td>William Eastham</td>
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<tr>
<th>Human Resources</th>
<th>Ext. 4225</th>
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<tr>
<td>Interim Vice President, Human Resources</td>
<td>Dr. Jack Miyamoto</td>
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<tr>
<td>Director, Human Resources</td>
<td>Trinda Hoxie</td>
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<tr>
<th>Information and Educational Technology</th>
<th>Ext. 4357</th>
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<tbody>
<tr>
<td>Chief Technology Officer</td>
<td>Victor Belinski</td>
</tr>
<tr>
<td>Director, Enterprise Applications Systems</td>
<td>Sheryl Hullings</td>
</tr>
<tr>
<td>Director, Academic Technology and Infrastructure</td>
<td>Dale Vickers</td>
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<tr>
<td>Assistant Director, Academic Technology and Infrastructure</td>
<td>Shanti Atashpoush</td>
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<tr>
<th>President's Office</th>
<th>Ext. 4121/4215</th>
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<tr>
<td>Director, Marketing &amp; Public Affairs</td>
<td>Clarence Brown</td>
</tr>
<tr>
<td>Executive Director, Mt. SAC Foundation</td>
<td>Richard Morley</td>
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### ADMINISTRATION (continued)

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<tr>
<th>Instruction</th>
<th>Ext. 4200</th>
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<tr>
<td>Vice President, Instruction</td>
<td>Dr. Virginia Burley</td>
</tr>
<tr>
<td>Dean, Instructional Services</td>
<td>Dr. Deborah Boroch</td>
</tr>
<tr>
<td>Dean, Arts Division</td>
<td>Dr. Susan Long</td>
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<tr>
<td>Dean, Business Division</td>
<td>Dr. John Heneise</td>
</tr>
<tr>
<td>Associate Dean, Business Division</td>
<td>Richard Patterson</td>
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<tr>
<td>Director, Child Development Center</td>
<td>Janette Henry</td>
</tr>
<tr>
<td>Associate Dean, Humanities and Social Sciences Division</td>
<td>Dr. Stephen A. Runnebohm</td>
</tr>
<tr>
<td>Dean, Library and Learning Resources Division</td>
<td>Dr. James Jenkins</td>
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<tr>
<td>Director, Learning Assistance Center</td>
<td>Dr. Bailey Smith</td>
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<tr>
<td>Dean, National Sciences Division</td>
<td>Larry Redinger</td>
</tr>
<tr>
<td>Interim Associate Dean, National Sciences Division</td>
<td>Matthew Judd</td>
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<tr>
<td>Dean, Technology and Health Division</td>
<td>Deborah Blackmore</td>
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<tr>
<td>Director, Physical Education/Wellness Programs</td>
<td>Joseph Jemm \n</td>
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<tr>
<td>Dean, Technology and Health Division</td>
<td>Dr. Sarah Daum</td>
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<tr>
<td>Associate Dean, Technology and Health Division</td>
<td>Jemma Blake-Judd</td>
</tr>
<tr>
<td>Director, Nursing Program</td>
<td>Susan Chen</td>
</tr>
<tr>
<td>Dean, Continuing Education</td>
<td>Donna Burns</td>
</tr>
<tr>
<td>Director, Basic Skills</td>
<td>Madelyn Arballo</td>
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<tr>
<td>Associate Director, Basic Skills</td>
<td>Omideh Sloan</td>
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<tr>
<td>Interim Director, Community Education and Contract Training</td>
<td>Paula Madrigal</td>
</tr>
<tr>
<td>Director, ESL and Intercultural Programs</td>
<td>Liza Becker</td>
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<tr>
<td>Assistant Director, ESL and Intercultural Programs</td>
<td>Vacant</td>
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<tr>
<td>Coordinator, ESL Curriculum and Assessment</td>
<td>Margaret Teske</td>
</tr>
<tr>
<td>Director, Grants</td>
<td>Adrienne Price</td>
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<tr>
<td>Director, Research and Institutional Effectiveness</td>
<td>Barbara McNeice-Stallard</td>
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<tr>
<th>Student Services</th>
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<tr>
<td>Vice President, Student Services</td>
<td>Dr. Audrey Yamagata-Noji</td>
</tr>
<tr>
<td>Dean, Counseling</td>
<td>Thomas Mauch</td>
</tr>
<tr>
<td>Associate Dean, Counseling</td>
<td>Dr. Dyllay Foster</td>
</tr>
<tr>
<td>Dean, Student Services</td>
<td>Carolyn Keys</td>
</tr>
<tr>
<td>Dean, Enrollment Management</td>
<td>Dr. George Bradshaw</td>
</tr>
<tr>
<td>Assistant Director, Admissions and Records</td>
<td>Patricia Montoya</td>
</tr>
<tr>
<td>Director, Upward Bound</td>
<td>Juan Carlos Astorga</td>
</tr>
<tr>
<td>Coordinator, CallWorks/CARE</td>
<td>Lorraine Williams</td>
</tr>
<tr>
<td>Director, Assessment and Matriculation</td>
<td>James Ocampo</td>
</tr>
<tr>
<td>Director, Career and Transfer Services</td>
<td>Heidi Lockhart</td>
</tr>
<tr>
<td>Director, Disabled Student Programs and Services (DSP&amp;S)</td>
<td>Grace Hanson</td>
</tr>
</tbody>
</table>
INSTRUCTIONAL DIVISIONS (continued)

**Arts Division**

Dr. Susan Long, Dean
Rich Patterson, Associate Dean

The Arts Division is composed of four departments: Art, Music, Commercial and Entertainment Arts, and Theater. The division sponsors numerous award-winning performance groups, houses an art gallery, and includes Studio Arts as well as Digital Arts and Radio and Television programs. The division sponsors student drama and music productions in the Performing Arts Center, oversees the Animation and Radio and television certificate programs, and monitors the college radio station, KSAX, as well as vocational degrees and certificates in Photography, Computer Graphics and Design for Interactive Visual Media.

The division has performing groups that have competed internationally and have established top national and international ranking. For information relating to departments, programs, or events, contact the division office at ext. 5200.

**Business Division**

John Heneise, Dean

The Business Division is composed of six educational departments, three economic and workforce development grants and one service area. The educational departments are: Accounting and Management, Business Administration (Paralegal Studies, Marketing, Sales, Real Estate and Economics), Computer Information Systems (Programming, Networking and Security), Child Development, Consumer Science and Design Technologies (Family & Consumer Sciences, Fashion Merchandising & Design, Hospitality and Restaurant Management, Interior Design and Nutrition & Food), and Office Technology.

For additional information, contact the division at ext. 4600.

The division also includes the services of the Child Development Center, with Janette Henry as the Director. For additional information, contact the Child Development Center at ext. 4920.

The division's programs and services are designed to insure high quality education delivered in up-to-date facilities, meeting job requirements and the needs of the community.

**Economic Development Directors**

Center of Excellence ........................................ Audrey Reille, Ext. 6106
Small Business Development Center .......................... Daniel Morales, 626-337-2101

Continuing Education Division

Donna Burns, Dean

The Continuing Education Division provides a range of courses serving students and community members enrolled in noncredit courses and programs. Mt. San Antonio College provides matriculation services to assist individuals seeking to enter the workforce or access further education in the following categories: Basic Skills, English as a Second Language, Programs for Adults with Disabilities, Citizenship, Parenting, and Short-term Vocational Programs. Continuing Education houses additional programs and resources as follows: The Language Learning Center, offering resources for learning new languages; the Older Adult Program promoting lifelong learning and ongoing career skills training; the Training Source that provides customized on-site courses for a variety of organizations; and the Health Careers Resource Center for health-related skills development. For additional information on courses, services, and programs offered, contact the division office at ext. 4220.

Humanities and Social Sciences Division

Dr. Stephen Runnebohm, Dean
James Jenkins, Associate Dean

The Humanities and Social Sciences Division is composed of eight departments: American Language; Communication; English, Literature and Journalism; Foreign Languages; History, Art History, Geography and Political Science; Psychology and Education; Sign Language; and Sociology, Philosophy.

The division sponsors interdisciplinary and national award-winning programs and publishes the student newspaper, The Mountaineer, through journalism courses. The division also supports a nationally ranked forensics program, a successful study abroad program, and the Teacher Preparation Institute. For additional information, contact the division at ext. 4570.

Library and Learning Resources Division

Meghan Chen, Dean

Bailey Smith, Director, Learning Assistance Center

The Library and Learning Resources Division includes Learning Assistance, Library, Media Services, Tutorial Services, and Distance Learning. Housed in the Learning Technology Center, the various departments provide support services for all students at the College.

**Departments**

Distance Learning ............................................. Ext. 5658
Learning Assistance ........................................... Chair, Pat Bower, Ext. 4304
Library ................................................................ Chair, Emily Woolery, Ext. 4264
Media Services ...................................................... Ext. 4270
Tutorial Services .................................................... Ext. 6605
Natural Sciences Division Ext. 4425
Larry L. Redinger, Dean
Matthew Judd, Interim Associate Dean

The Natural Sciences Division provides a wide variety of diverse educational opportunities and programs within its six departments: Agricultural Sciences; Biological Sciences; Chemistry; Earth Sciences and Astronomy; Mathematics and Computer Science; and Physics and Engineering. Agricultural Sciences provides numerous vocational programs leading to an associate degree or Certificate including programs in Animal Science, Equipment Technology, Registered Veterinary Technology, and Ornamental Horticulture. Biological Sciences offers a variety of courses for both majors and non-majors, including specific programs in Anatomy and Physiology, Anthropology, Histotechnology, Microbiology, Botany, and Zoology. Chemistry offers a full range of lower-division courses, including introductory, general, and organic chemistry. Earth Sciences and Astronomy provide course work in geology, oceanography, meteorology and astronomy. Mathematics and Computer Sciences provide courses for students at all levels of computational ability, from pre-algebra to calculus and differential equations. Physics and Engineering offers several course sequences in classical physics, as well as courses in Physical Science. The Engineering program provides a solid foundation of lower-division courses for those students preparing to transfer to a baccalaureate-level institution. For additional information, contact the division at ext. 4425.

Physical Education Division Ext. 4630
Deborah Blackmore, Dean/Athletic Director
Joseph Jennum, Director/Physical Education and Wellness Programs

Mt. SAC’s Physical Education Division has been a leader among community colleges for over 60 years. Our commitment to Physical Education, Athletics and Dance is exhibited by our dedication to the health and well being of our students and community. Our comprehensive class offerings, certificate programs, Fire and Law Testing (PAT)/Conditioning Program, Dance Productions, Athletic Programs and Athletic Special Events demonstrate this commitment.

Mt. SAC is home to one the nation’s largest and most successful community college athletic programs for men and women. The Championship Winning Athletic Program offers 22 individual sports and is an integral part of the College’s overall educational offerings. Mt. SAC Student/Athletes excel on the field and in the classroom. Our “WIN” academic support program provides testing, tutoring and counseling services for our student/athletes and serves as the “model” academic support program for all community colleges.

Mt. SAC’s five “world famous” annual athletic special events—the Mt. SAC Relays, Mt. SAC Cross Country Invitational, Footlocker Western Regional Cross Country Championship, LA84 Foundation Youth Days Program and the International Pole Vault Camp—reach over 100,000 participants, coaches and spectators, generating millions of dollars into the local economy.

Technology and Health Division Ext. 4750
Dr. Sarah Daum, Dean
Jemma Blake-Judd, Associate Dean

The Technology and Health Division provides 31 certificates and 31 degrees in occupational and vocational programs in the areas of technology, public services, and health care. The programs offer a variety of Associate in Science Degrees and certificates leading to job placement, transfer, and updating of skills. Programs offered in technology include Aeronautics, Air Conditioning and Refrigeration, Aircraft Maintenance, Architecture and Engineering Design, Electronics Technology, Travel, Water Technology, and Welding. The Public Services Programs include Fire Technology, Administration of Justice, Correctional Sciences, and Alcohol and Drug Counseling. Health Care Programs include Medical Services, Mental Health, Radiologic Technology, Respiratory Technology, and Nursing. The Associate Degree Nursing program provides quality preparation for students seeking a career as a Registered Nurse. Programs are driven by industry needs, and many are governed by State accrediting boards. In addition, the division includes The Regional Health Occupations Resource Center (RHORC) and the RHORC at ext. 6101. For additional information, contact the division at ext. 4750.

Department
Regional Health Occupations Resource Center ........................................................................ Ext. 6101
Section 2

Matriculation Services:

Admissions and Registration

Assessment and Placement Orientation

Counseling/Advisement
Matriculation

ADMISSION AND REGISTRATION

Admissions
Admission to Mt. San Antonio College includes the filing of an application for admission by the student and the filing of transcripts from high school or college(s). It is the student's responsibility to request official transcripts from the last high school attended and any college(s) attended. Transcripts will be reviewed to determine eligibility for courses at Mt. SAC.

Application to the College
All inquiries regarding admission to the college should be directed to the Admissions and Records Office. Admission is granted only by filing an official application for admission using one of the following methods:

1. The application for admission to the college is available online. To access the online application, visit the Mt. SAC Admissions Website at http://admissions.mtsac.edu and click on the online application link at the top of the web page.
2. Assistance is available in English, Spanish, Vietnamese, Chinese and Sign Language. Information is also available in alternative formats (Braille, enlarged text, e-text, etc.).

Residency Requirements (for fee purposes)

Residency Guidelines
This statement is a general summary of the principal rules of residency and their exceptions and should not be construed as the actual expression of the laws used by the Mt. San Antonio College Admissions Officer for residency determination. Reference should be made to Chapter 1 (commencing with Section 68000) of Part 41 of Division 5 of the Education Code, regulations of the Board of Governors of the California Community Colleges in Chapter 1 (commencing with Section 54000) of Division 5 of Part VI of Title 5 of the California Administrative Code, and the regulations and guidelines available in the Admissions and Records Office.

Residence Classification
Each person enrolled in or applying for admission to Mt. San Antonio College will, for purposes of admission and/or tuition, be classified as a "resident," or a "non-resident.

1. Resident: A resident is a person who is eligible to establish California residency for tuition purposes or who has resided within California for at least one year and who has established a legal residence in California prior to the residency determination date.

2. Non-resident: A non-resident is one who has not resided in the State for more than one year prior to the residency determination date and who has not established legal residence or who is not eligible to establish California residency for tuition purposes.

Criteria for Determination of Legal Residence
To determine a person's place of residence, reference is made to the following:

1. Every person has, in law, a residence.
2. Every person who is married* or 18 years of age or older, and under no legal disability to do so, may establish residence.
3. In determining the place of residence, the following rules are to be observed:
   a. There can be only one residence.
   b. A residence is the place where one remains when not called elsewhere for labor or other special or temporary purposes, and to which person returns in seasons of repose.
   c. A residence cannot be lost until another is gained.
   d. The residence can be established and/or changed only by the union of act and intent.
   e. A man or a woman may establish his or her residence. Thus, it is possible that a woman who is married to, and living with, her husband may have a residence separate from his. A woman's residence shall not be derivative from that of her husband.
   f. The residence of the parent with whom an unmarried minor child maintains his/her place of abode is the residence of the unmarried minor child. When the minor lives with neither parent, his or her residence is that of the parent with whom he/she maintained his or her place of abode; however, the minor may establish his or her own residence provided both parents are deceased and a legal guardian has not been appointed.
   g. The residence of an unmarried minor who has a living parent cannot be changed by his or her act, by the appointment of a legal guardian, or by relinquishment of a parent's right of control, unless the student qualifies for the self-supporting exception.

Burden of Proof
The burden of proof is on the student to clearly demonstrate both physical presence in California and intent to establish California residence.

* A minor, married but subsequently divorced, retains the capacity to establish his or her own residence. An annulment of the marriage (a determination that in effect the marriage never took place) will require that the minor be treated like any other minor.

Residence Classification Appeal
Any student, following a final decision on residency classification by the Admissions and Records Office, may make written appeal to the Appeals Committee of Mt. San Antonio College within 30 calendar days of notification of final decision regarding classification.

Concurrent Enrollment for K-12 Students (Special Admits)
The Special Admit program is designed for high school sophomores, juniors and seniors (10th, 11th and 12th grades) who would benefit from taking advanced scholastic or vocational work at Mt. San Antonio College. Students must meet the following criteria to participate in the Special Admit program:

1. Be recommended by their high school principal or counselor;
2. Be approved to participate by their parents/guardian;
3. Have a 3.0 cumulative high school grade point average or better to enroll in degree appropriate courses, or a 2.0 or better GPA for a vocational course;
4. Meet all course prerequisites and/or co-requisites;
5. Sophomores and juniors will only be allowed to enroll in a single course. Seniors may enroll in two courses.

Special Admit application packets may be obtained in the Counseling Center or online at www.mtsac.edu/students/counseling/college-starter.html

Only college level courses may be taken as part of the Special Admit program. Students needing to make up a high school deficiency can apply to participate in the High School Referral Program. Please go to the Continuing Education Center in Building 30.

A parent/guardian approval form allowing the student to participate must be submitted as part of the application process. Parents must acknowledge that their student will be instructed in an adult environment and that the student will be expected to conform to all college policies. Students who have previously enrolled and who have dropped their courses and/or have not made satisfactory progress will not be allowed to continue their participation in the Special Admit program.

Highly gifted students enrolled in grades 9 and earlier may be considered for limited enrollment. To participate, students must meet all of the same criteria required for 10th, 11th and 12th grade Special Admit students.

All high school students will be required to attend a Special Admit orientation prior to being accepted for admission.

College credit will be earned as a result of taking courses at Mt. San Antonio College and those grades will become part of the student's permanent college record. High school credit may be possible at the discretion of the receiving high school. Please speak to your high school counselor.
### Evaluation of Other College Coursework

Mt. San Antonio College reserves the right to evaluate work completed in other regionally accredited colleges and universities. Transfers with acceptable grades will be granted advanced standing insofar as the work corresponds with the curriculum of this institution or the lower-division work offered in accredited colleges or universities. Each applicant should file with Admissions and Records an official transcript of their records from all colleges and universities previously attended. This material should be furnished at least two weeks prior to registration. For information regarding military credit, see Section III in this Catalog.

It is the student’s responsibility to request the evaluation of official transcripts from other colleges. This may be accomplished by submitting a completed “Evaluation Request” form at Admissions and Records.

Students planning to use courses taken at other colleges for placement in Mt. San Antonio College courses who did not have transcripts sent to Admissions and Records must bring official copies of their transcripts at the time they register. Transcripts may also be required at the first class meeting.

Transcripts submitted for admission become the property of Mt. San Antonio College and cannot be returned to the applicant or forwarded to other institutions.

### Acceptance of Domestic Coursework from Accredited Colleges and Universities in the United States

The College will accept “degree appropriate” or “baccalaureate” level courses from accredited colleges and universities in the United States. These course units will, at a minimum, be granted “elective credit” status.

To determine General Education and/or Associate Degree equivalency and for granting of unit credit, the course must be easily identifiable as the same course taught at Mt. San Antonio College by a commonly used course prefix, title, and description. To be verified, sufficient information, including prerequisite information, must be available from the accredited college/university to substantiate granting course equivalency and course credit. The College reserves the right to evaluate work completed in other regionally accredited colleges and universities previously attended.

### Articulation with High Schools, ROPs, and Adult Schools

Articulation Agreements with secondary schools (high schools, Regional Occupational Programs and Adult Education) are established annually during the fall and are valid for the current school year. Articulation is a faculty-driven process with three possible methods of rewarding student achievement in the Career Technical Education courses taken at the secondary level. The three types of articulation include Project Credit, Course Equivalency and College Units of Credit.

- **Project Credit**: The minimum level of articulation and results in a certificate to be submitted in a specified college course in lieu of a specific required project or projects. Course Equivalency recognizes the information gained from the secondary experience and allows students to use that experience to continue their career education by taking an advanced college level course. Project Credit and Course Equivalency articulation will not result in units of credit at the college.

- **College Units of Credit**: The most common form of articulation between the college and secondary schools. Students participating in these agreements must meet an exam requirement as stated in California Code of Regulations, Title 5. Students that successfully meet the exam requirement and supply the correct paperwork will be awarded a grade and units of credit. The credits will appear with a notation of “by exam” on a Mt. SAC transcript in the semester closest to the completion of their secondary course.

- **Articulation with secondary programs**: A time sensitive process. Secondary students must complete the required paperwork and pass required exams at the completion of their secondary course. If a course sequence is required at the secondary level, the student must request the units at the completion of the course sequence. The required paperwork must be submitted by the instructor of record on the articulation agreement within two months of course or sequence completion. Students may not seek college units retroactively.

Required paperwork includes:

- **2+2 Articulation Equivalency Form**
- **High School Transcript**
- **ROP/Adult Education Certificate of Completion**

Forms are available from participating high school instructors. Secondary instructors submit all required paperwork to the Technical Education office at Mt. San Antonio College. Articulation forms will be accepted from authorized secondary instructors only.

College credit issued by ROP and/or Adult Education centers will be accepted if the issuing programs are accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) or the Senior College Commission, under the auspices of the Western Association of Schools and Colleges (WASC).

For more information on articulations with high schools, ROPs and adult schools, please contact the Tech Prep/Articulation Office, Bldg. T1A, at (909) 594-5617, ext. 5252.

### Admission of International Students

Mt. San Antonio College encourages applications from students holding or attempting to obtain the F-1 Visa. The following items are required from international applicants:

- **Mt. SAC Application for Admission**
- **International (F-1 Visa) Student Application**
- **Application processing fee of $50.00 (U.S.)**
- **Confidential Financial support documents**
- **A “paper based” TOEFL score of at least 450, “computer based” TOEFL score of at least 133, or an Internet-based score of at least 45.**
- **Transcripts from high school and/or college attended**
- **TB (tuberculosis) test**
- **Proof of health insurance (prior to registration)**

The following items are required for current F-1 Visa students transferring into Mt. SAC:

- **Copy of I-20**
- **Copy of I-94**
- **Transfer form**

The deadlines to apply for the 2009-10 school year are as follows:

- **Summer 2009** — First Monday of April
- **Fall 2009** — First Monday of June
- **Winter 2010** — First Monday of November
- **Spring 2010** — First Monday of December

F-1 Visa students can obtain all application materials from our College Website at [www.mtsac.edu](http://www.mtsac.edu). From the Mt. Sac home page, click on “Apply or Register,” then on “Forms and Publications,” then click on “Application for International Students.” TOEFL scores, admissions application (both college and International Student Application), and all supporting materials must be received on or before the term deadlines listed above. Students will be required to take the Assessment of Written English (AWE) when they arrive at Mt. San Antonio College. Applications received after the deadline will be considered for the following semester. The application fee must accompany the admission application.
Matriculation

Registration
Registration for classes is done online via the web at http://my.mtsac.edu. Students who enrolled in the previous semester or session preceding the enrollment term are eligible to register for classes. Students may check their date and time to register at http://my.mtsac.edu.

Schedule of Classes
The Mt. SAC Schedule of Classes, which indicates intended course offerings and teaching assignments for both credit, noncredit and continuing education courses, is published each semester. The credit course offerings are found in the front of the schedule. The noncredit and continuing education course listing appears towards the back of the book and also includes the smaller noncredit/continuing education registration card. The combined Schedule of Classes is available on campus, on the Mt. SAC website (www.mtsac.edu) and at community libraries. The College reserves the right to cancel, reschedule, equalize, or combine classes and to change professors where such action is deemed necessary. Because of facilities limitations, any class section or program will be closed as soon as enrollment has reached the maximum designated for that class or program.

Enrollment Fees and Expenses
Students are charged an enrollment fee, a Health Services Fee, and for some classes Materials Fees for each semester at Mt. San Antonio College. These fees are subject to change. An optional Student Activities Fee is subject to change. Students must purchase their own textbooks and supplies. Expenses for books and supplies for full-time students may average $300 to $400 per semester depending upon the program of study selected.

Refund of Fees
To be eligible for a refund, students must drop their classes by the refund deadline for that class. The deadline can be found on their Student Schedule/Bill. If the student’s class has been officially dropped, or cancelled by the College, the student will receive a refund check in the mail in approximately 45 days. Refund checks will be made payable to the student and sent to the mailing address on your student account. Please see the current Schedule of Classes for more refund information.

Military Refund:
In the case of students who are members of an active or reserve military unit and who receive orders compelling a withdrawal from classes, the College shall, upon petition by the affected student, refund the parking fee, health fee, materials fee, Student Activities Fee, entire enrollment fee and non-resident tuition fee unless academic credit is awarded.

Cancelled Classes
Classes may be cancelled at the discretion of the College. Students enrolled in such a class will be permitted to enroll in other open classes. Students who have a class or classes cancelled by the College because of low enrollment and have paid their fees for those classes will receive a refund check in the mail in approximately 45 days.

Student Obligations
Mt. San Antonio College will withhold grades, transcripts, diplomas, and registration privileges, or any combination thereof, from any student or former student who fails to pay a proper financial obligation due to the College (e.g., returned check, unpaid enrollment fees, unpaid loan, equipment breakage, unpaid library fine, etc.). Any item or items withheld shall be released when the student satisfactorily meets the financial obligation.

Enrollment Fees and Expenses
Students who have a class or classes cancelled by the College and who have paid their fees for those classes will receive a refund check in the mail in approximately 45 days.

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Mt. San Antonio College will withhold grades, transcripts, diplomas, and registration privileges, or any combination thereof, from any student or former student who fails to pay a proper financial obligation due to the College (e.g., returned check, unpaid enrollment fees, unpaid loan, equipment breakage, unpaid library fine, etc.). Any item or items withheld shall be released when the student satisfactorily meets the financial obligation.

ASSESSMENT AND PLACEMENT
Most students attending Mt. San Antonio College are required to participate in assessment. The assessment and placement process has been established to enable all students an opportunity to achieve probable success in their course work. In addition, the process allows the faculty to instruct their courses at an appropriate level with the knowledge that students will be reasonably prepared.

Placement Tests
Placement tests are required for appropriate course placement. Students take placement exams for math, English and reading courses. Advanced level math placement exams should be taken when applicable to the student's academic background and intended program of study.

English Placement
The College utilizes the assessment of Written English (AWE) to evaluate students' writing skills. Most students are required to have their English competency assessed prior to registration. Based on the assessment, students are placed in one of the following categories:

Placement Test and Eligibility Time Limits
Students may repeat a test once every three months. Under certain extenuating circumstances and with approval of the Director of Assessment and Matriculation, a test may be repeated prior to the three-month limit.

Test Scores and Placement from Other Colleges
Math and reading test scores will be accepted from other colleges if that college uses the same test as Mt. SAC. Test scores from other college English tests are not accepted. Mt. SAC does not accept placement granted at other colleges.

Appeals Process
Students may appeal their English and/or math placement if they can demonstrate alternate proof of course equivalency or competency. If extenuating circumstances exist that may affect course placement, students may seek consultation in the appropriate division office. Students should be prepared to present documentation such as high school or college transcripts, additional test results, or work experience.
ABILITY TO BENEFIT

Students applying for financial aid who do not have a high school diploma, GED, a certificate of proficiency or its equivalent must demonstrate that they have the ability to benefit from an educational program at Mt. San Antonio College prior to receiving Title IV financial aid. To meet this requirement, you must have taken and passed the federally approved Ability to Benefit test (Wonderlic) that is conducted at the Assessment Center or satisfactorily completed 6 credit hours of coursework applicable toward a degree or certificate offered at Mt. SAC. For further information regarding the Ability to Benefit regulations, contact the Financial Aid Office.

EXEMPTION FROM ASSESSMENT

Students are exempt from Assessment if they:
1. enroll in non-credit or community services classes only;
2. select and enroll in a general interest class which does not have prerequisites;
3. verify English or math eligibility based on course work at Mt. San Antonio College or other regionally accredited institutions;
4. verify other test scores accepted by Mt. San Antonio College;
5. possess an Associate or higher degree from an accredited institution.

ORIENTATION – CREDIT STUDENTS

Orientation is required for all new students who are enrolling in Mt. San Antonio College. This includes students who may want to take one course, or those who are transferring from another college. The only exception is for students who have a degree from an accredited college/university.

Orientation includes information regarding college programs, services, procedures, student responsibilities, and other related information. Students will have the opportunity to meet with a counselor or an advisor to develop a first semester educational plan.

The College has determined the importance of an orientation to college as a factor in success. Prospective students are urged to make an appointment for orientation immediately after filing an application and taking the necessary placement tests.

COUNSELING/ADVICE

Counseling and advising services are provided to matriculated students who are in need of additional assistance regarding course selection, major selection, and transfer information and planning. Students are encouraged to meet with a counselor during their first semester of enrollment to develop an Educational Plan. The Educational Plan lists the courses needed to complete a specific major, as well as identifying graduation and/or transfer requirements in general education.

Students who are undecided about their major and/or career and educational goals, should make an appointment with Counseling and Advising Services to meet with a counselor. Career counseling services are available to students at no cost, to assist students in making the most appropriate choices about their future.

EXEMPTION FROM ORIENTATION AND COUNSELING/ADVICE

Students are exempt from Orientation and Counseling/Advisement if they:
1. enroll in non-credit or community services classes only;
2. possess an Associate or higher degree from an accredited institution;
3. attain 60 units or more from an accredited institution;
4. select and enroll in a general interest class only. All students must meet course prerequisites.

PRE-COLLEGIATE BASIC SKILLS

Courses designated “Pre-Collegiate” develop basic skills in reading, writing, and mathematics. They will neither count toward graduation from Mt. San Antonio College, nor transfer to a baccalaureate institution.

PREREQUISITES, COREQUISITES, AND ADVISORIES

Faculty at Mt. SAC have established prerequisites, corequisites and advisories for courses. If a student does not meet the prerequisite or corequisite requirements, the student will be blocked from enrolling in those courses. Transcripts and grade report cards from other colleges used to determine whether pre or corequisites have been met must be evaluated prior to registration.

Prerequisite

Prerequisites to a course are those courses which must have been taken previously as preparation for the course. To enroll in a class that has a prerequisite, the required preparation must have been completed prior to enrolling in the course. In some instances, English and math prerequisites may be met by attaining eligibility through assessment. All course prerequisites listed must be completed with a grade of “C” or better, unless otherwise stated.

Corequisite

To enroll in a course that has a corequisite, the corequisite course must be taken concurrently. In some instances, a corequisite may have been taken previously.

Advisory

An advisory to a course is preparation which is highly recommended by faculty teaching the course. Although students may enroll in a course if they do not possess the advisory skills, they are encouraged to abide by an advisory whenever possible.

CHALLENGING PREREQUISITES AND COREQUISITES

If a student believes that any of the following conditions exist with regard to an existing course prerequisite or corequisite, the student may obtain a Petition to Challenge form from the Assessment Center in the Student Services Center:

- The prerequisite or corequisite has not been established in accordance with the College’s process for establishing prerequisites and corequisites;
- The prerequisite or corequisite is in violation of State Title 5 regulations;
- The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner;
- The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite;
- 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; or
- Such other grounds for challenge as may be established by the district governing board.

The student must provide appropriate documentation when filing a challenge with the Director of Assessment and Matriculation. Documentation may include, but is not limited to, high school or college transcripts, additional test results, work experience, or an on-campus writing sample. Prior enrollment in the course does not exempt a student from the current prerequisite of that course.
Section 3

Academic Policies and Requirements
ACADEMIC FREEDOM

It is the policy of Mt. San Antonio College to maintain and encourage freedom for its faculty, within the law, of inquiry, teaching and research, and the pursuit of knowledge. In the exercise of this right, the professor may discuss his/her subject or area of competence in the classroom, as well as other relevant matters, including controversial materials, so long as he/she distinguishes between personal opinions and what is contemporarily regarded as factual information by leading academicians in the discipline being discussed.

The professor shall use no material in any teaching assignment nor make any speech in order to incite students or others to unlawful acts or to create a clear and present danger to the students and/or the College and/or the community. Professors may not use the classroom to promote a particular religious belief (see also Board Policy BP 4030, and Administrative Policy AP 4030).

ATTENDANCE AND ENROLLMENT

Attendance

Students are expected to attend all class meetings. It is the students’ responsibility to know the attendance and absence policies of their professors.

Professors will take attendance at all class meetings. It is the responsibility of each professor to inform his/her classes of the attendance and absence policies at the beginning of each semester.

It is the student’s responsibility to officially drop a class whenever he or she determines that he or she can no longer attend the class. Failure to drop a class officially may result in a failing grade and/or a financial obligation to the college.

Instructors may drop students from their class rolls through the last day of the tenth week of instruction of a regular semester for excessive absence as defined by the instructor.

Students will be granted College-authorized absences for participation in the following activities:

1. Player participation in inter-collegiate athletics and activities.
2. Class-planned field trips.
3. Area and State student government conferences.
4. Class-planned and sponsored speech, art, drama, and music programs.

NOTE: To establish an official College-authorized absence, the professor must submit the students’ names to the Student Life Office.

Auditing Courses

Students may not audit courses at Mt. San Antonio College. All students must be officially enrolled in a course in order to attend that course.

Dropping Courses and Withdrawing from the College

For 16-week classes, students who drop a class, withdraw from College, or are dropped by a class from the professor during the first three (3) weeks of a regular semester will receive no mark(s) or notation(s) on their permanent record.

Students who drop a class, withdraw from College, or are dropped by the professor between the first day of the fourth week and the last day of the tenth week of instruction during a regular semester will receive a mark of “W” withdrawal on their permanent record.

Professors may not drop students from class, and students may not drop class(es) or withdraw from College after the last day of the tenth week in a regular semester. All students enrolled after the tenth week shall receive an academic grade (A, B, C, D, F, P, NP) or an incomplete mark for the course.

In short-term courses, students who withdraw or are dropped from class during the first 30% of the course will receive no notation on their permanent record. Students may drop short-term courses only through 60% of the course.

A “W” withdrawal mark shall not be assigned to any student enrolled after the last day to drop except in the case of an approved petition because of extenuating circumstances. A “W” withdrawal remains a permanent part of a student's academic record.

Student Unit Limits

Without petitioning, students may enroll in up to 18 units each semester and up to seven units each summer and winter session. Students who have completed a minimum of 15 college units in a given semester with a grade point average of at least 3.0 and have a minimum cumulative grade point average of at least 3.0 may petition for permission to enroll in units above the maximum.

Students may be required to see a counselor as part of the petition process. Petitions are available in the Counseling Office, located on the upper level of the Student Services Center.

Repeatable Courses

Certain courses may be taken more than once for credit. If the course is designated as repeatable, the course may be repeated only for the number of times allowable. In some cases, a group of courses may carry a collective limitation on the number of allowed repetitions for that entire group/cluster of courses (for example, when a similar educational activity is offered in beginning and advanced course levels.) To determine whether a course is repeatable, refer to Section 10, Course Descriptions, in this Catalog.

Repeating Courses Previously Passed

State Regulations do not allow students to repeat non-repeatable courses previously passed with satisfactory grades of “A,” “B,” “C,” “Credit” or “Pass.” Students with extenuating circumstances may file a Petition for Exceptional Action in the Admissions Office. Students who are allowed to repeat courses based on this provision will not earn additional units or grade points toward improving or changing the previous grade earned in the class or toward changing the overall grade point average.

Petitions for Exceptional Action

Student Petitions for Exceptional Action forms are available from the Counseling Office and Admissions and Records Office. Students may complete these forms and submit them to Admissions and Records. Subsequent action on a petition will be taken either by the appropriate administrator or the Board of Appeals.

Limitations on Repeating Courses

Beginning with the Fall 2009 semester, students who have recorded a substandard grade of either “D,” “E,” “No Credit” or “No Pass” will only be allowed to repeat the same course two times, for a total maximum enrollment of three times. The student’s permanent academic record will be annotated such that all course work that has been taken and forgiven or repeated will remain legible, insuring a true and complete academic history. Unit credit is only allowed once when repeating a D grade.

Withdrawals. In cases in which the student's grade and/or withdrawal was the result of an extenuating circumstance, students may file a petition to repeat a class an additional time (whether the prior enrollment was due to a substandard grade or a withdrawal.) Extenuating circumstances are verified accidents, illnesses or other circumstances beyond the control of the student. When course repetition is approved pursuant to this provision, the previous grade and credit earned (if any) shall be disregarded in computing the student's grade point average each time the course is repeated. Participation in an intervention program may be required.

Definitions

Primary Term: A primary term is either the Fall or Spring semester. In contrast, both Winter and Summer intersessions are not considered to be primary terms.

Continuing Student:

■ A continuing student is one who enrolls in at least one credit course and receives a grade, including a W in any term during the academic year.

■ A continuing student retains rights to follow graduation and/or certificate requirements for the year they entered or any catalog thereafter, as long as the student maintains continuous enrollment.
Academic Policies and Requirements

Catalog Rights
This term is used to define the specific set of general education and other graduation requirements, as established in the catalog for a specific year, which the student must satisfy to qualify for a degree, certificate, etc.

Students may choose to qualify for graduation (general education and major) under the requirements in effect at either:
1. the time they entered the college, or
2. they may use any catalog thereafter, as long as the student maintains continuous enrollment. Continuous enrollment is defined as attendance every primary term (Fall and Spring) after initial enrollment at Mt. San Antonio College.

Continuous Residence
A student will retain rights to follow Catalog requirements for the year they entered Mt. San Antonio College if, during every primary term after initial enrollment at Mt. SAC, he/she:
1. is enrolled in any credit class at Mt. SAC beyond the first four weeks; or
2. completes any units in a credit class at another accredited post-secondary institution; or
3. receives a waiver in advance or approval of a petition for exceptional action because of extenuating circumstances.

CREDITS AND GRADES

Definition of a Unit of Credit
The standard “unit” represents one hour in class recitation and two hours of outside preparation per week or its equivalent for one semester. By this definition, “unit” is synonymous with “semester lecture hour.” In laboratory work and certain activity courses such as physical education, choir, drafting, etc., a greater number of in class hours per hour.” In laboratory work and certain activity courses such as physical education, choir, drafting, etc., a greater number of in class hours per semester. By this definition, “unit” is synonymous with “semester lecture hour.”

Classification of Students
Students at Mt. San Antonio College are classified as follows:
- Full-time — enrolled in 12 or more units in a fall or spring semester, or four or more units during a six-week summer or winter session.
- Part-time — enrolled in less than 12 units during the fall or spring semester or less than 4 units during a six-week session or less than nine units during a nine-week summer or winter session.
- Freshman — a student who has completed less than 30 units of credit.
- Sophomore — a student who has completed 30 units of credit or more.

Grading System
Scholastic grades showing the academic achievement of students are issued at the end of each semester. Any student enrolled as of the first day of the fourth week in a full semester course for any semester shall receive one of the marks listed below on his/her permanent records.

Incomplete
A student may file a petition for an incomplete or the instructor may initiate the petition on behalf of the student who is currently passing the class under the following circumstances: verifiable illness or emergency or verifiable work conflict. Incompletes may only be issued for requirements missed commencing the fourteenth (14) week of a regular semester class or after 85% of a short-term or summer session or winter intersession class. Re-enrollment in the same course for purposes of making up the incomplete is prohibited. The petition is subject to the approval of the instructor. If the petition is granted, the student must complete all outstanding course requirements (stipulated on the Petition to Request Incomplete form) within one year, or the incomplete will be recorded on the student’s record for the term in which the course is completed.

Final Examinations
A final examination shall be administered in all classes in compliance with the Final Exam Schedule prepared each semester. If a student is unable to attend a scheduled final examination, he/she must contact his/her instructor to make other arrangements. A student who does not take a final examination and who does not qualify for an “Incomplete” (see Grading-Incomplete), shall be assigned the grade “F” or “Zero” for the examination, and this grade shall be averaged in determining the final course grade. When a grade of “Incomplete” has been given, a copy of the final examination must be filed in the appropriate division office at the close of the semester.
Early Examinations
If a student must leave school prior to the scheduled final examinations week, he/she may take early examinations with the approval of his/her instructor. In no case may a student be released earlier than two weeks before the scheduled date of his/her final examination.

Pass/No Pass Grades
Some courses offered at Mt. San Antonio College are available to students on two different grading options: letter grade (A, B, C, D, F) or Pass/No Pass (Pass = A, B, or C; NP = D, F). A few classes are offered for Pass/No Pass only. These courses are designed to encourage students to explore areas outside their major field of study in order to broaden and enrich their collegiate experience, and to afford an opportunity for departments to offer courses in which there is diminished emphasis on grades. The Pass/No Pass grading option is no longer available for General Education courses.

In courses offering the grading option, students are automatically registered on a letter grade basis at the time of registration. If a change is desired, the student must declare his/her intent to be graded on a Pass/No Pass basis at the Admissions and Records Office no later than the last day of the fourth week of instruction in a full semester class. The grading option may not be changed at a later date. Students enrolled in short-term courses of less than semester length, but greater than six weeks, must determine their grading option no later than the end of the first 30% of the course or 30% of the required hours of instruction listed in the description for an open-entry/open-exit course. In any short-term course of less than six weeks, students must determine their grading option at the time of registration.

Credit toward graduation by using Pass/No Pass classes is limited to a maximum of 16 units. Courses taken for Pass/No Pass are not counted in calculating grade point average, nor in determining eligibility for the Dean’s List, but such courses are considered in probation and dismissal procedures.

Students are cautioned that upon transfer to baccalaureate institutions, “NP” grades typically are considered to be “F” grades.

Credit by Examination
The general philosophy of Mt. San Antonio College is that the interaction which takes place between the student and professor is of critical importance to the learning process. However, quality instruction places a premium on meeting individual student needs. Therefore, Mt. San Antonio College provides for Credit by Examination enabling the student to accelerate his/her educational program by providing opportunity to obtain credit in those fields in which he/she has already achieved proficiency independently or by informal means.

Pursuant to Section 55753 of Title 5 of the California Administrative Code, students at Mt. San Antonio College may apply for Credit by Examination and such unit credit may be granted subject to the following rules and regulations:

<table>
<thead>
<tr>
<th>Exam</th>
<th>COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSU GE Units</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Art History</td>
<td>3 semester (Area C1 or C2)</td>
</tr>
<tr>
<td>Art (Studio)</td>
<td>N/A</td>
</tr>
<tr>
<td>Biology</td>
<td>4 semester (Area B2 and B3)</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3 semester (Area B4)</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3 semester (Area B4)</td>
</tr>
</tbody>
</table>

**Only one exam may be used toward transfer***

**Maximum credit 5 quarter/3.3 semester units for both**

**Maximum credit 4 quarter/2.7 semester units for both**

**Maximum credit 4 quarter/2.7 semester units for both**

<table>
<thead>
<tr>
<th>Exam</th>
<th>COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSU GE Units</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>N/A</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Maximum one exam toward transfer***

**Maximum 4 quarter/2.7 semester units for both**

<table>
<thead>
<tr>
<th>Exam</th>
<th>COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSU GE Units</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics — Macroeconomics</td>
<td>3 semester (Area D2)</td>
</tr>
<tr>
<td>Economics — Microeconomics</td>
<td>3 semester (Area D2)</td>
</tr>
<tr>
<td>English — Language &amp; Composition</td>
<td>3 semester (Area A2)</td>
</tr>
<tr>
<td>English — Literature &amp; Composition</td>
<td>6 semester (Area B2 and C2)</td>
</tr>
</tbody>
</table>

**Maximum credit 5 quarter/3.3 semester units for both**

<table>
<thead>
<tr>
<th>Exam</th>
<th>COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSU GE Units</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Science</td>
<td>4 semester</td>
</tr>
<tr>
<td>French Language</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>French Literature</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>German Language</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Government &amp; Politics — Comparative</td>
<td>3 semester (Area D8)</td>
</tr>
<tr>
<td>Government &amp; Politics — U.S.</td>
<td>3 semester (Area B8 and US 2)**</td>
</tr>
</tbody>
</table>

**Does not fulfill AHR California Government requirement. Student can satisfy the AHR requirement after transfer.**

<table>
<thead>
<tr>
<th>Exam</th>
<th>COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSU GE Units</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>History — European</td>
<td>3 semester (Area C2 or D6)</td>
</tr>
<tr>
<td>History — U.S.</td>
<td>3 semester (Area C2 or D6)</td>
</tr>
<tr>
<td>History — World</td>
<td>3 semester (Area C2 or D6)</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3 semester (Area D5)</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Japanese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Latin — Vergil</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Latin — Literature</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3 semester (Area C1)</td>
</tr>
<tr>
<td>Physics B</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
<tr>
<td>Physics C — Mechanics</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
<tr>
<td>Physics C — Magnetism</td>
<td>4 semester (Area B1 and B3)</td>
</tr>
</tbody>
</table>

**Maximum 4 semester units toward GE and 6 semester units toward transfer**

**Maximum 4 quarter/2.7 semester units for both**

<table>
<thead>
<tr>
<th>Exam</th>
<th>COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSU GE Units</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>3 semester (Area D9)</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3 semester (Area C2)</td>
</tr>
<tr>
<td>Statistics</td>
<td>3 semester (Area B4)</td>
</tr>
</tbody>
</table>
ACADEMIC POLICIES AND REQUIREMENTS

INTERNATIONAL BACCALAUREATE CREDIT FOR GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE

<table>
<thead>
<tr>
<th>IB Examination</th>
<th>Number of Units Awarded to Mt. SAC General Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>5 semester units toward Area B2</td>
</tr>
<tr>
<td>Business Management</td>
<td>NA</td>
</tr>
<tr>
<td>Chemistry</td>
<td>5 semester units toward Area B1</td>
</tr>
<tr>
<td>Classical Languages</td>
<td>5 semester units toward Area C2</td>
</tr>
<tr>
<td>Computer Science</td>
<td>NA</td>
</tr>
<tr>
<td>Dance</td>
<td>5 semester units toward Area C1</td>
</tr>
<tr>
<td>Design Technology</td>
<td>NA</td>
</tr>
<tr>
<td>Economics</td>
<td>5 semester units toward Area D2</td>
</tr>
<tr>
<td>Film</td>
<td>5 semester units toward Area C2</td>
</tr>
<tr>
<td>Geography</td>
<td>5 semester units toward Area D2</td>
</tr>
<tr>
<td>History</td>
<td>5 semester units toward Area C2 or D2</td>
</tr>
<tr>
<td>History of Islamic World</td>
<td>5 semester units toward Area C2 or D2</td>
</tr>
<tr>
<td>Language A1</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>5 semester units toward Area A1</td>
</tr>
<tr>
<td>French</td>
<td>5 semester units toward Area A1</td>
</tr>
<tr>
<td>Language A2/B</td>
<td>5 semester units toward Area C2</td>
</tr>
<tr>
<td>Mathematics</td>
<td>5 semester units toward Math Proficiency</td>
</tr>
<tr>
<td>Music</td>
<td>5 semester units toward Area C1</td>
</tr>
<tr>
<td>Philosophy</td>
<td>5 semester units toward Area C2</td>
</tr>
<tr>
<td>Social and Cultural Anthropology</td>
<td>5 semester units toward Area D2</td>
</tr>
<tr>
<td>Theatre Arts</td>
<td>5 semester units toward Area C1</td>
</tr>
<tr>
<td>Visual Arts</td>
<td>5 semester units toward Area C1</td>
</tr>
</tbody>
</table>

Rules and Regulations

1. Credit by Examination will be granted only for those courses which have been so designated by the departments.
2. Any grade received for Credit by Examination will be entered on the student’s permanent record with a notation of “Credit by Comprehensive Exam.”
3. A student may petition for Credit by Examination provided:
   a. The student has been registered at Mt. San Antonio College.
   b. The student has not already received credit nor is currently enrolled beyond six weeks in the same course or in a more advanced course (except for Advanced Placement Course Credit).
   c. The student has at least a 2.0 grade point average. This includes transfer/new students.
4. The student may obtain the petition for Credit by Examination from the Division Office.
5. The department will establish written guidelines by which the eligibility of a student to take such an examination is determined.
6. The Department will assign a grade depending on the results of the examination and submit the form “Petition for Credit by Examination” to Admissions and Records.
7. The student may not use Credit by Examination to satisfy the residency requirement for the degree.

A list of courses for Credit by Examination is available at each Division Office, the Instruction Office, or through Counseling and Advising Services.

Advanced Placement Examinations in CSU General Education – Breadth Certification

Advanced Placement examinations may be incorporated into certification of completion of CSU General Education–Breadth requirements by any participating institution. Students must have scored 3, 4, or 5 on an Advanced Placement examination listed below to receive the credit indicated. All CSU campuses will accept the minimum units shown below toward fulfillment of the designated General Education–Breadth area if the examination is included in a full or subject-area certification; individual CSU campuses may choose to accept more units than those specified below towards completion of General Education–Breadth requirements. The CSU campus to which the student is transferring determines the total number of units awarded for successful completion of an Advanced Placement examination and the applicability of the examination to other graduation requirements. See the table above for specific AP Subjects.

International Baccalaureate Credit for Mt. SAC General Education Requirements for the Associate Degree

Students completing all or portions of the International Baccalaureate (IB) program at their high school may petition to utilize the results of their IB examinations to meet Mt SAC general education requirements in the areas identified below. Only IB certificate examinations with scores of 5, 6 or 7 on will be honored.

Students who have both a qualifying Advanced Placement (AP) test score (3 or above) and a qualifying IB certificate exam score (5 or above) in the same examination area, or who have completed a college level course for credit, will only have the first completion counted for credit.

Both UC and CSU stipulate that IB students who complete an IB diploma are eligible to receive 30 units of credit towards graduation. These are unspecified units (electives) and do not meet specific general education requirements at the university. Mt. SAC will not honor such requests by diploma students. Only individual IB exams will be eligible to receive academic credit.

Credit for Extra Institutional Learning

Philosophical Basis
This policy of granting credit for extra-institutional learning is provided for students under special conditions in recognition of learning that has been attained outside the sponsorship of legally authorized and accredited post-secondary institutions.

General Policy Statement
Credit for extra-institutional learning will be awarded to those students who have attained competency of subject matter through experiences outside of the sponsorship of legally authorized and accredited post-secondary institutions.

The College will accept the recommendations of the American Council on Education in reference to the guide to the Evaluation of Educational Experience Experiences in the Armed Forces and the National Guide to Credit Recommendation for Non-collegiate courses; the College Entrance Examination board in reference to its recommendation of Advanced Placement Examinations, and credit recommendations from other similarly nationally recognized academic institutions, including Mt. San Antonio College’s policy for comprehensive examinations.
Policy Regulations

- Of the 60 units required for the Associate Degree, at least twenty-four (24) units must be earned in courses that contribute to the grade point average.
- Extra-institutional learning credit will normally not be evaluated unless the credit is necessary for graduation.
- Credit for non-collegiate courses will be awarded only for work applicable toward the Associate Degree. Credit may be granted for upper division courses provided the student has earned less than 60 units at the time the upper division work is attempted.
- To petition for extra-institutional learning credit, a student must have at least a 2.0 grade point average, not be on probation, and be in good standing.
- The permanent academic record shall be annotated in such a manner to insure that a true and complete history of extra-institutional learning credit has been granted.
- In cases where a student is seeking a degree/certificate from the College, all standard graduation and residency requirements apply and must be met by completing a minimum of 12 units earned from Mt. SAC courses.

Credit for Military Training

Mt. San Antonio College will grant four units of Baccalaureate level elective credits for military experience without regard to the field of service. Additional credit may be allowed for specific programs of training and credits earned through the United States Armed Forces Institute. The College will follow the recommendations made by the American Council on Education.

HONORS

Academic Honors

President’s List
The President’s List is an honors list comprised of those students who have achieved a 3.50 or better grade point average in a minimum of twelve (12) letter-graded Associate Degree applicable units per semester.

Dean’s List
The Dean’s List is an honors list comprised of those students who have achieved a 3.0 to 3.49 grade point average in a minimum of twelve (12) letter-graded Associate Degree applicable units per semester.

Graduation Honors
Graduation honors are awarded as follows:

Academic Distinction
The “Academic Distinction Honor” designation is placed on the transcript and degree of the graduate who has achieved an overall grade point average (GPA) of 4.00.

Scholastic Honor
The “Scholastic Honor” designation is placed on the transcript of the graduate who has achieved an overall grade point average (GPA) of 3.90 through 3.99.

With Honors
The “With Honors” designation is placed on the transcripts and degree of the graduate who has achieved an overall grade point average (GPA) of 3.75 through 3.89.

Honors Program
Mt. San Antonio College offers an Honors Program for students who have demonstrated academic excellence. Honors courses are specially designed sections of transferable general education courses and, with a few exceptions, are part of the IGETC requirement list.

Completion of the Honors Program makes a student eligible for guaranteed priority admission to the following universities: UCLA, UC Irvine, UC Riverside, UC Santa Cruz, Chapman University, Pepperdine University, Pepperdine College, Pomona College, and Occidental College. In addition to an enhanced curriculum for motivated students, Honors Program students receive library privileges at UC Irvine, UCLA, and UC Riverside; and an Honors Certificate and pin upon honors certification.

Entrance Requirements

- High School Students — Eligibility for ENGL 1A; 1,000 composite SAT score; 3.5 GPA
- Mt. San Antonio College Students — Nine transferable units; Eligibility for ENGL 1A; 3.5 GPA (Waivers can be obtained through the Honors Program Office for highly motivated students with a competitive GPA and an in-progress grade report and professor recommendation.)

Requirements for “Honors Scholar” Designation

- Complete six (6) honors courses (18 units) with a minimum 3.2 GPA for honors certification
- Maintain a 3.2 GPA

For additional information about Mt. SAC’s Honors Program, contact the Vice President of Instruction at Ext. S414 or the Honors Program Office at Ext. 4665.

Alpha Gamma Sigma
Mt. San Antonio College sponsors the Zeta Chapter of Alpha Gamma Sigma, the statewide scholastic honorary organization for California Community Colleges. There are three categories of membership eligibility. Only degree appropriate courses/units (those that grant credit for an Associate or Bachelor’s degree) may be used to establish eligibility for membership (Exception: Temporary Membership).

1. Temporary: (First college semester only) Must hold a California Scholastic Federation (CSF) Life Membership or be a high school graduate with a cumulative grade point average of 3.5 or higher. This membership is intended as an introduction to Alpha Gamma Sigma and is not to be considered as an initial membership.
2. Initial: (First time membership) Must have completed 12 degree-appropriate units in a maximum of three (3) semesters with a degree appropriate cumulative grade point average of 3.0 or higher.
3. Continuing: (Previous membership) Must have achieved for the previous semester a degree appropriate grade point average of 3.0 or higher OR have maintained a degree appropriate cumulative grade point average of 3.0 or higher.

Part-time students are eligible for membership. Membership requires campus and community involvement (service hours).

Applications are available in Student Life, Building 9C-1. For further information and review of academic eligibility, students should consult an Alpha Gamma Sigma Officer or an Alpha Gamma Sigma Advisor. Scholarships provided by Zeta Chapter and the State Alpha Gamma Sigma Organization are available to actively involved members. Some baccalaureate granting institutions provide scholarship assistance which is limited to Alpha Gamma Sigma members. For details, consult with an Alpha Gamma Sigma Advisor.

Permanent membership in Alpha Gamma Sigma is an honorary lifetime AGS title for students who have completed 60 degree appropriate units; a minimum of 30 of the total 60 units must have been completed at Mt. SAC. A permanent membership application must be submitted by the graduation petition deadline. To apply students must: a) have a cumulative GPA of 3.25 or higher for 60 completed degree appropriate units and b) complete a minimum of two semesters as an active or inactive member. Only permanent members receive recognition at graduation.

Phi Theta Kappa
Mt. SAC sponsors the Alpha Omega Chapter of Phi Theta Kappa, an international scholastic honorary organization for America’s two-year colleges, including Canada, Germany, Puerto Rico, Panama and American Samoa. Eligibility for membership is established for the following:

1. Full and part-time students who have completed 12 appropriate degree units with a 3.5 grade point average at an accredited institution.
2. Students who have maintained a 3.5 grade point average while a member.

For further information and review of academic eligibility, students should consult a Counselor or a Phi Theta Kappa advisor. Currently, some 70 U.S. colleges and universities offer scholarships to members. There are several advantages which accompany this honor, including recognition at graduation. Applications are available at the Honors Program office in 26A-1680.
ACADEMIC POLICIES AND REQUIREMENTS

ACADEMIC STANDARDS

Probation and Dismissal

There are two forms of probation: Academic Probation and Progress Probation.

Academic Probation

A student is placed on Academic Probation when the student has:
1. attempted at least 12 units, and
2. earned a cumulative grade point average below 2.00.

Progress Probation

A student is placed on Progress Probation when the student has:
1. enrolled in a total of at least 12 units, and
2. the cumulative percentage of all units in which the student has enrolled for which entries of “W,” “I” and “NP” are recorded reaches or exceeds fifty percent.

Upon recording of Academic or Progress Probation a student shall have their registration restricted, be required to participate in a prescribed counseling intervention and be limited to enroll in a maximum of 12 units in subsequent semesters, and 4 units in a winter or spring term, while on probation.

Clearing Probation

1. Academic Probation - The Student shall be cleared from Academic Probation when the student’s cumulative grade point average is 2.0 or higher.
2. Progress Probation - The student shall be cleared from Progress Probation when the student’s cumulative percentage of units with “W,” “I” and “NP” drops below fifty percent.

Probation and Dismissal Status

1. First Semester Probation
   a. Academic - occurs at the end of that first semester in which the student has attempted at least 12 units and has earned a cumulative grade point average below 2.0, or
   b. Progress - the cumulative percentage of all units in which the student has enrolled for which entries of “W,” “I” and “NP” are recorded reaches or exceeds fifty percent.
2. Second semester Probation
   a. Academic - occurs when the student in their consecutive semester continues to have a cumulative grade point average below 2.0, or
   b. Progress - continues to have a cumulative percentage of all units enrolled recorded as “W,” “I” and “NP” at fifty percent or higher.

3. Dismissal occurs after three consecutive semesters of Academic or Progress Probation. The student shall be dismissed for at least one semester. If the student has enrolled in the subsequent semester before the Dismissal status has been determined through the posting of the previous semester’s grades, the student may be dropped from all classes.

For the purposes of this section, semesters shall be considered consecutive on the basis of the student’s enrollment, so long as the break in the student’s enrollment does not equal two primary terms or more.

Appeal of Dismissal

A student who is subject to dismissal may request an appeal of dismissal through the Counseling Department. If approved the student shall be required to participate in a prescribed counseling intervention and complete a contract, which shall include the number of units in which the student shall enroll. If the student chooses not to make the request, or the request is denied, the student shall be dismissed for at least one semester.

Reinstatement after Dismissal

A dismissed student may request reinstatement through the Counseling Center after an interval of one semester. The reinstated student shall be required to participate in a prescribed counseling intervention and complete a contract for reinstatement, which shall include the number of units in which the student shall enroll.

A reinstated student shall remain on probation, reinstated status until clearance of probation. A reinstated student shall also remain on contract until clearance of probation. Failure to comply with the terms and conditions of the contracts may result in subsequent dismissal.

RECORDS

Definition of Educational Records

Educational records consist of those files maintained by the following offices: Admissions and Records, Counseling, Assessment, Financial Aid, and those files maintained for individual students by departments.

Academic Renewal

The Academic Renewal Policy is provided for students in specific circumstances where previously recorded, substandard academic performance is not reflective of the student’s present demonstrated ability. Academic renewal applies only to substandard coursework completed at Mt. SAC. Students with substandard coursework at other colleges/universities need to contact those institutions to see if they are eligible for academic renewal under the provisions of academic renewal of said institution.

A. A maximum of twenty-four units may be alleviated.
B. Since completion of the work to be disregarded, the student’s cumulative grade point average for all units completed at the time of adjustment must be at least 3.0 for 18 semester units, 2.5 for 24 semester units, or 2.0 for 30 units. The cumulative grade point average may include course-work completed at Mt. San Antonio College and/or other accredited colleges or universities. Courses used to qualify for Academic Renewal which were completed at another college or university must be verified by official college transcripts.
C. A time period of at least two years must have elapsed since the end of the term of substandard work to be disregarded.
D. Academic renewal will apply only to substandard grades: D, F, and NC.
E. The permanent academic record shall be annotated in such a manner that all work remains legible, insuring a true and complete academic history.
F. Mt. San Antonio College does not guarantee that academic renewal will be honored by institutions outside of the District. This determination will be made by the transfer institution.
G. Students requesting academic renewal must file a petition in the Admissions and Records Office. Students should consult with a counselor prior to filing this petition.

Transcripts

Official transcripts of work completed at Mt. San Antonio College may be obtained by submitting a written request to Admissions and Records located on the lower level of the Student Services Center. The first two requests for transcripts are free, subsequent requests are $2.00 each. Free unofficial/student copies of transcripts may be obtained from campus kiosks or from the Advising Center located on the upper level of the Student Services Center or online at http://my.mtsac.edu.

Challenge of Educational Records

1. Any student may file a written request with the Records Officer of the District (Dean, Enrollment Management) to remove information recorded in the student’s records which is alleged to be: 1) inaccurate; 2) an unsubstantiated personal conclusion or inference; 3) a conclusion or inference outside of the observer’s area of competence; or 4) not based on the personal observation of the named person with the time and place of the observation noted.
2. If the student is not satisfied with the determination made by the Dean, Enrollment Management, the student may utilize the existing college student grievance process (p. 259).
Section 4
Student Services
and Student Life
STUDENT SERVICES
Mt. San Antonio College provides a wide range of support services which are essential for success to assist a diverse student population in achieving their educational, career, personal and social goals.

Admissions and Records
Student Services Center, Ext. 4415
Admissions and Records, located on the lower level of the Student Services Center, provides a variety of services to students. It is usually the first office prospective students visit, and the last office students visit before transferring or graduating. The following are some of the services provided:
1. All students must submit an application for admission in order to attend Mt. San Antonio College. The admissions application generates a Permit to Register and establishes a historical student record for each student. Also, transcripts from high school and other colleges must be submitted for prerequisite eligibility checks.
2. All registration is done online via the web at my.mtsac.edu. Registration instructions can be found in the latest Schedule of Classes or online at my.mtsac.edu.
3. Other services provided by Admissions and Records include maintaining student demographic information such as name, address and Mt. SAC student identification numbers, maintaining student academic history, issuing I-20s for International Students, processing Petitions for Exceptional Action, processing transcript and enrollment verification requests, processing graduation and certificate petitions and distributing diplomas and certificates. Admissions and Records is the official custodian of student records and maintains all permanent roll sheets and grade books received from faculty.
4. The Admissions and Records Office also provides the Student Services Kiosks located in the Student Services Building. These kiosks provide unofficial transcripts, final grades, and copies of the Permit to Register. All services available at the kiosk are also available at my.mtsac.edu. To use this service, students must have their Mt. SAC Student Identification number and Personal Identification Number (PIN).

Assessment Center
Student Services Center, Ext. 4265
The Assessment Center administers the College's placement and career assessment program. Services offered are as follows:
1. Placement testing (English, Math, and Reading) measures students' readiness for appropriate course placement.
2. Career Assessments measure student interests, abilities, work values, and experience to help students with career planning.
To make an appointment for testing or for further information, call or visit the Assessment Center, located on the lower level of the Student Services Center.

The Bridge Program, Ext. 5392
The Bridge program is a learning community designed to increase students' academic and personal success through the structuring of a personalized learning environment.

Admission to the program is based on academic need. Students participating in Bridge are enrolled in linked classes that are taught in a cooperative environment between instructors. In this group setting, students have an opportunity to learn about being successful college students and how to utilize college services. In addition, students are supported by Bridge Program staff and counselors, financial aid advisors, as well as by transfer and advising specialists.

The Bridge Program is the right choice for students who find themselves undecided on career choices, who have apprehensions about the transition to college, and who would like to make new friends. Bridge students share particular educational goals, common interests, and similar backgrounds. As part of the Bridge Program, students can choose to be part of the Summer Bridge, English Bridge, Math Bridge, ASPIRE Bridge and/or the Pre-Nursing/Health Bridge.

Bursar's Office and Photo ID, Ext. 4960
The Bursar's Office, located in Building 9A, is responsible for the collection of credit registration fees and other campus fees including parking permits, transcripts, enrollment verification and production cards. The office also processes photo ID cards and refunds for credit classes.

Career and Transfer Services
Student Services Center, Ext. 4510
Career and Transfer Services helps students and graduates to secure part-time and full-time employment in order to help them continue to attend college, or to enter into a career field related to their A.S. Degree or career certificate.

Services include:
- Job referrals to employment opportunities in the community
- Internship opportunities
- Assistance with resumes and interviewing skills
- Employment acquisition skills workshops
- Job search library and printed handouts
- Job fairs and on-campus recruiting
- Internet access to recruiting sites and job boards on the web

While Mt. SAC graduates may return to Career and Transfer Services for employment assistance, current students are strongly encouraged to visit Career and Transfer Services while they are still attending.

Counseling Center
Student Services Center, Ext. 4380
Students can take advantage of educational planning, career exploration and decision-making, and other services offered through the Counseling Center on the second floor of Building 9B.

Counselors are available to assist students who:
- are undecided about their major or career direction;
- need information about their career and transfer options;
- are having difficulty in their courses;
- need assistance with personal problems.

It is highly recommended that students see a counselor during their first semester at Mt. SAC to develop a student educational plan.

Counselors and educational advisors can also provide:
- information on course selection and planning for degree or certificate completion;
- information about major and transfer requirements to CSU, UC and private universities;
- general information about the college.

An appointment can be scheduled by calling (909) 594-5611, ext. 4380.

Disabled Student Programs & Services (DSP&S), Student Services Center, Ext. 4290
If students have a disability which limits their ability to participate fully and equally in any College instructional program and/or activity, they are encouraged to visit Disabled Student Programs and Services. A professional will meet with them to determine the extent of their limitations and the special services and accommodations that may be provided for their needs.

To take advantage of the wide array of special programs and services we offer, written documentation of disability must be provided by a physician or appropriate professional; the disability must present a limitation to a successful education; the ability to benefit from instruction must be demonstrated; and self-management skills (mobility, eating and using restrooms without assistance) must be adequate, unless an attendant is utilized. We do not provide attendant service.

If students have a doctor's verification that requires them to park in zones designated as “handicapped parking,” they are required to apply for a state “Disabled Person” permit and placard from the Department of Motor Vehicles, if they don't already have one.

If students have a current “Disabled Person” permit and placard or a “DP” license plate from the State of California Department of Motor Vehicles, they are not required to purchase a student parking permit. They are allowed to park in any parking space designated as...
Services Center.

Programs and Services, located on the lower level of the Student Services Center, provides access to higher education for students with academic and financial disadvantages and those who qualify for CARE. Some of the services offered are:

- Counseling
- Educational Planning
- Peer Advising
- Instructional Development and Services
- Tutoring
- Book Service Program
- Financial Assistance

To be eligible for the EOPS program, a student must:

1. Be a California resident
2. Be enrolled as a full-time student (12 units or more)
3. Have fewer than 70 degree applicable units
4. Qualify to receive a Board of Governors Enrollment Fee Waiver under Method A or B
5. Be educationally disadvantaged
6. Have a valid social security number.

CARE (Cooperative Agencies Resources for Education) is a support program for EOPS students who are single head of household parents receiving CalWORKs — and provides additional assistance to students who are:

- Eligible for EOPS
- Enrolled in at least 12 units upon acceptance
- Currently receiving AFDC/TANF assistance, with at least one child under 14 years of age
- At least 18 years old, single head of household
- Have applied for financial aid and have a need for child care, transportation, books and supplies, and/or counseling to attend college
- Pursuing a program at Mt. SAC which will lead to a certificate, degree or transfer

Students who believe they qualify for the program should visit the EOPS Office.

Federal and State programs include:

- Financial Aid
- Book Service Program
- Instructional Development and Services
- Peer Advising
- Education Planning
- Counseling
- Peer Advising
- Financial Assistance
- Book Service Program
- Instructional Development and Services
- Tutoring
- Financial Assistance

To provide financial assistance in the form of grants, loans, scholarships, and part-time employment for students who meet financial aid program eligibility requirements. Student financial aid awards are contingent upon continued funding from Federal and State government agencies. Students eligible for financial aid typically receive a “package” of aid from two or more of the financial aid programs.

All students may be eligible for some form of assistance based on their financial need. The Financial Aid Office, located on the upper level of the Student Services Center building, administers aid programs for eligible applicants. Eligibility criteria for financial aid programs are subject to frequent change. Students may apply for aid by filing a Free Application for Federal Student Aid (FAFSA) form. A FAFSA worksheet is available in the Financial Aid Office for students interested in filing online at www.fafsa.ed.gov. For any questions or further information, contact the Financial Aid Office, ext. 4450.

The information reported on the FAFSA may be verified by the Financial Aid Office using a parent’s and/or student’s Internal Revenue Services Forms 1040, 1040A or 1040EZ. Other documents may also be requested such as a copy of the Social Security card, Alien Registration card (if applicable) and a Photo ID for identification purposes.

Recipients of aid from Federal and State funded programs must be students enrolled in eligible programs of study for the purpose of obtaining a degree, an approved Title IV certificate, or transfer. In addition to financial need, other eligibility requirements for most Federal and State programs include:

1. Having a high school diploma or equivalent. This requirement can be met by demonstrating the ability to benefit by passing a federally approved Ability to Benefit test or by completing six degree/certificate applicable units. For more information on Ability to Benefit, contact the Financial Aid Office.
2. Being a U.S. Citizen or eligible non-citizen.
3. Maintaining satisfactory progress in accordance with the standards.
4. Not be in default on a federal loan or grant overpayment.
5. Be registered with the selective service, if required.
6. Have a valid social security number.

To be considered for financial aid, students must complete the Free Application for Federal Student Aid (FAFSA) or the renewal application.
STUDENT SERVICES AND STUDENT LIFE

These applications are usually available beginning in January for the following academic year. If a student is interested in a State of California Grant, the FAFSA and a GPA verification form must be completed. The Cal Grant program deadline is March 2nd of each year. For students who miss this deadline, there is a second opportunity only for community college students to apply for Cal Grants. The deadline for this is September 2nd. Additional information and eligibility requirements are available at the Financial Aid Office. The FAFSA is the application for the following Federal and State programs:

- Federal Perkins Loans
- Board of Governors Fee Waiver
- Federal Pell Grant
- Federal Academic Competitiveness Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work-Study Program (FWS)
- Need-based scholarships
- State Cal Grants
- Chafee Grant (for Foster youth)
- Federal William D. Ford Direct Loan Program

Students who receive federal financial aid and do not attend any classes will be required to repay all of the funds they have received. Students who withdraw from all classes prior to completing more than 60% of the semester are subject to the Return of Title IV funds requirements and will have their financial aid eligibility recalculated based on the percentage of the semester completed, and will be required to repay any unearned financial aid they have received. At Mt. SAC a student’s withdrawal date is determined as follows:

1) the date the student officially notified the Admissions Office of his or her intent to withdraw, or
2) the midpoint of the semester for a student who leaves without notifying the college, or
3) the student’s last date of attendance at a documented academically-related activity, or
4) the date posted by the instructor indicating last day of attendance

The California Community College Board of Governors Fee Waiver program is available to qualified California residents. The enrollment fee is waived for eligible students. The student is responsible for paying the remainder of the fees assessed within seven business days of registration. There are three methods to qualify for a Board of Governors Fee Waiver: (1) Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), or General Relief recipient, or (2) Household size/family income, or (3) Financial need as determined by filing the Free Application for Federal Student Aid (FAFSA). Applications for this program are available in the Financial Aid Office. In addition to the three methods, there are special classifications that qualify for an enrollment fee waiver, which is subject to certification and/or documentation. Refer to the BOG Fee Waiver application for a list of these classifications.

In addition, the college administers a variety of scholarship programs. Information about the College Scholarship Program can be obtained in the Financial Aid Office.

Student Health Services

Building 67B, Ext. 4400

Medical, chiropractic, personal counseling, nursing and health education services are provided. Additional services include laboratory tests, tuberculosis screening, limited prescription medication, immunizations, pregnancy testing and referrals. All credit students who are currently enrolled and attending classes are eligible. Part-time faculty are eligible for select services. Some fees may apply. Professional health services are provided primarily on an appointment basis. Same-day appointments are also available; call between 8:00 and 8:30 a.m. First aid services are provided for all student, employees and guests of the College.

International Student Programs

Student Services Center, Ext. 4415

Mt. San Antonio College annually welcomes hundreds of international students on F-1 visas to pursue a higher education. International students must complete and submit additional application materials and pay non-resident fees to study at the College. Specialized counseling assistance is available. Staff in Admissions and Records are also available to assist international students.

First Year Experience, Ext. 5392

The First Year Experience program offers a unique combination of courses this fall to incoming students who aren’t quite prepared for college-level math and English. First Year Experience students will receive:

- Instant enrollment in pre-college math and English classes.
- (Guaranteed enrollment granted on a first-come, first served basis.)
- Chance to earn up to 9 units of academic credit.
- Popular morning sessions.
- Easy-to-follow instruction by our superb faculty.
- Opportunity to work in teams to achieve their success.
- Expert counseling on what it takes to succeed in college and beyond.

In addition, the coursework is enriched with field trips and tutorial assistance to enhance the learning experience.

Re-Entry Services

Student Services Center, Ext. 4392

(See Extended Opportunity Programs and Services — EOPS)

Veterans’ Services

Student Services Center, Ext. 4520

Veterans’ Services, located on the upper level of the Student Services Center, provides programs for Veterans and dependents seeking educational and/or vocational training under Title 38, United States Code.

Veterans are urged to take advantage of the counseling service and educational programs offered by Mt. San Antonio College. The College cooperates with the Veterans’ Administration and with the California State Bureau of Vocational Rehabilitation in helping veterans. Veterans and dependents are required to comply with Veteran Regulations Section 21.4135, 21.4235, and 21.4277, in regard to required attendance and progress that the student (veteran or dependent) must meet in order to receive educational benefits under Title 38, United States Code.

The Veterans’ Administration requires all entering veterans to be formally evaluated for military experience to prevent future interruption of educational benefits. All prior transcripts (College or Service) must be received and evaluated by our Admissions and Records Office as soon as possible along with a complete and signed educational plan prior to the second semester. Students should visit the Counseling Center for assistance in completing their educational plan.

Satisfactory progress of veterans or eligible dependents is measured by the successful completion of the number of units enrolled. “W,” “WC,” and “F” grades are considered punitive grades. “F” grades may cause an overpayment if the veteran does not take his/her final. Please refer to Mt. San Antonio College’s Probation and Dismissal Policies in this Catalog.

A 2.0 GPA must be maintained in order to receive an Associate Degree. Should a veteran fail to make satisfactory progress for two semesters, benefits will be terminated. The veteran will be contacted and an appointment must be made with a counselor. Upon satisfactory completion of one semester of approved courses, benefits will be reinstated.

The veteran or dependent has the responsibility to adhere to these standards of attendance and progress and to notify the Veterans’ Services Office of any change in status that would affect the collecting of veteran’s benefits. Additions, drops, withdrawals, and last day of attendance must be reported at once.

The College maintains a Veterans Service Center to assist veterans and/or dependents in all matters pertaining to veteran’s benefits. Veterans and/or eligible dependents must apply each semester for their Veterans Administration educational assistance allowance through the Veterans’ Service Center. Special details such as application deadlines can be found in the most current Schedule of Classes.
Child Development Center
Building 9E, Ext. 4920

Admission Policy
Early care and education services for children from birth through 5 are provided between the hours of 6:30 a.m. and 7:30 p.m., Monday through Thursday and 6:30 a.m. until 5 p.m. on Fridays for student/parent, staff, and community parents. The Child Development Center welcomes all children regardless of sex, ethnicity, religion, or physical handicap. A child must be in good health and parents must meet eligibility requirements. A student/parent must be enrolled in 6 or more units of credit coursework in order to be accepted into the program. Day time students have priority.

State Preschool Program Half and Full Day
A State Preschool Program is available for eligible students/parents of 3- and 4-year-old children. The Program is available on a space available basis only. There may be a minimum daily fee for this program.

General Childcare Funding
This program is available on a limited basis for eligible students/parents. There may be a minimum daily fee for this program depending on the family’s gross monthly income.

Child Care Access Grant Funding
Parents who receive or are eligible for a Pell grant may qualify for this program funding.

Fee Program
Children not qualified or accepted into any center-funded program may enroll in the fee-based program. The fee schedule is available by contacting the Child Development Center.

Enrollment
Formal application must be made in person at the Child Development Center, Building 9E, located North of the campus bookstore (SacBookRac). Final acceptance into the program will be determined when eligibility has been decided, all paperwork has been completed, and all required fees are paid. State Law requires that an oral interview/orientation be completed. For information concerning registration dates and times, those interested should consult the latest Mt. San Antonio College Schedule of Classes or contact the Child Development Center at Ext. 4920.

Security Escort Service, Ext. 4233
Mt. San Antonio College offers a security escort service from 6:30 p.m. to 10:10 p.m. Monday through Thursday. Students can request an escort by calling Ext. 4233. Please refer to the Escort map below to identify the locations. Escorts can be identified by their yellow jackets and ID badges. Escorts are employed under the jurisdiction of the Public Safety Department.

STUDENT LIFE
Student Life provides opportunities for participation in leadership programs, student government, student clubs, and other social, personal growth and development experiences.

Student Life Office/Student Center
Building 9C, Ext. 4525
The Student Life Office is responsible for student involvement and leadership programs, and serves as the hub of student activities at Mt. SAC. Information regarding the LEAD (Leadership Education and Development) Program, student leadership conferences, volunteer opportunities and other involvement opportunities that are available in Student Life. This office also handles lost and found items, approves and enforces all on-campus posting, and assists in contacting students in emergency situations.

Students who are involved in co-curricular activities are encouraged to complete the Activities Transcript (available online), which complements their academic transcript and verifies the student’s involvement in service and leadership activities outside of the classroom.

The Director of Student Life serves to counsel and discipline students based upon the College’s Student Discipline Policy. Students are assisted in understanding their due process rights and grievance procedures. The office responds to disciplinary issues and advises faculty and staff on issues related to discipline. Students who have complaints regarding their final grades or their experiences on campus can receive assistance in the Student Life Office.

The Associated Students (AS) Government offices are located here as well as club mailboxes.

STUDENT LIFE CENTER
Building 9C, Ext. 5959
The Student Life Center provides a relaxing area to lounge, watch TV, play foosball, ping pong or a variety of board games. Students also have access to free wireless internet with their laptop. The Student Center enforces all on-campus posting, and assists in contacting students in emergency situations.

Associated Students (AS) Government
Building 9C, Ext. 4525
Student Government serves as the representative voice for students on all College issues and provides students with an opportunity to develop leadership skills. There are six executive officer positions and twenty Senate positions available to students interested in becoming involved in making a positive difference on campus. The Senate allocates monies to support various College programs, events and services. There are opportunities for students to also serve on College-wide committees to influence College policies and decision making. Associated Students meetings are held every Tuesday in the Student Center, Building 9C, Room 5 from 3:00 p.m. – 5:00 p.m. The Student Activities Fee funds many AS-sponsored events and initiatives which support student clubs, programs, projects and services throughout the year. The SacBookRac sells AS discount amusement park and movie tickets.

Campus Clubs and Organizations
Building 9C, Ext. 4525
There are many opportunities for students to join a variety of over 45 student clubs: cultural, social, academic, religious and recreational. Students can also start a new club through the Student Life Office. The Inter-Club Council (ICC) is comprised of one representative from each student club. ICC meets weekly on Mondays from 1:00 p.m. - 2:00 p.m. to discuss club activities and formulate procedures to better serve the campus community. Join-A-Club is a three-day event that takes place at the beginning of each semester to inform students about student club involvement opportunities. A current listing of all student clubs and organizations is available in the Student Life Office.
Section 5

Instruction and Learning Resources
INSTRUCTION AND LEARNING RESOURCES

Distance Learning Program
What is Distance Learning?
Distance Learning is a mode of education in which a portion of the instruction occurs when there is a geographical distance between the teacher and the student. Students do not need to come to the campus each week but can learn from, and communicate with, their professor using a variety of technologies.

Online Learning Classes:
Mt. San Antonio College offers many classes online via the Internet. To be successful in these courses, students must have access to a personal computer with Internet connection using the latest browser like Firefox, Netscape Navigator or Internet Explorer; and an e-mail address.

Online-Supported (Hybrid) Classes:
Hybrid classes have one or more components of the class delivered in an online mode via the Internet. Students meet with their instructor and attend on-campus meetings. (Number of on-campus meetings to be determined by the instructor).

For further information about the Distance Learning Program at Mt. San Antonio College, contact the Dean, Library & Learning Resources at (909) 594-5611, Ext. 5658.

Study Abroad Program
Mt. San Antonio College offers students a wide range of study abroad opportunities. The Work and Study in London Program leads participants to obtain a mini-certificate in International Business while working for up to six months in the United Kingdom. There are also a number of short-term summer study programs sponsored by the college in international locations, and our membership in the California Colleges for International Education (CCIE) permits students to participate in study abroad programs sponsored by dozens of other member community colleges throughout California. Interested students may inquire about these programs by contacting the Humanities and Social Sciences Division Office, Ext. 4570, or by visiting the International Studies Office in Building 26A, Room 120.

Work Experience Education
Occupational work experience education is supervised work activity extending classroom-based occupational learning at an on-the-job learning station (work site) relating to the student's occupational goal. This is guided by a written agreement between the College, the work site, and the student, providing the learner with adequate equipment, materials, and facilities to support the learning objectives specified within the agreement.

Student Qualifications
Students participating in Work Experience must:
1. Have the approval of the assigned work-experience Instructor/Coordinator.
2. Have an occupational or educational goal to which, in the opinion of the Instructor/Coordinator, the work experience chosen will contribute.
3. Pursue a planned program of work-experience education based on written, measurable learning objectives which are directly related to the student's educational program and which, in the opinion of the Instructor/Coordinator, include new or expanded responsibilities or learning opportunities beyond those experienced during previous employment. Repetition of experiences in an ongoing job does not permit continued eligibility for the program.
4. Meet the following condition if self-employed: Identify a person who is approved by the Instructor/Coordinator to serve as a designated employer representative. This representative shall agree, in writing, to accept the following employer responsibilities:
   a. Assist the student in identifying new or expanded on-the-job learning objectives.
   b. Assist in the evaluation of the student's identified on-the-job learning objectives.
   c. Validate hours worked.

Credits
For the satisfactory completion of work-experience education, the College will grant credit to a student in an amount not to exceed four (4) units per semester, with a maximum total of sixteen (16) units during the student's enrollment at the College. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester of supervised work is required for each one unit of credit.

The students must be, as verified by the supervising instructor, enrolled in an occupational program directly related to the work experience assignment.

The student enrolled in the work-experience program shall assume and comply with the following responsibilities:
1. Unless otherwise determined, develop measurable learning objectives approved by the Instructor/Coordinator and work-site supervisor.
2. If under the age of 18, obtain the written permission of their parents.
3. Faithfully discharge the duties of the on-the-job assignment.
4. Notify the Instructor/Coordinator of any work-site problems or change in status of duties.
5. Try at all times to represent themselves and the College positively while at the work site.
6. If prior to enrolling in work-experience education, the student is already employed full time by the work site where the work experience will take place, the student must write a report concerning a learning objective that extended beyond the duties of the regular job.

The Writing Center,
Building 26B, Rooms 100, 130, 131

The Writing Center offers free services to all students. The Center provides one-on-one tutoring in writing for any course at the College; CRLA certified tutors and at least one English instructor are present at all times. In addition, the Writing Center offers a variety of workshops to help students with common writing issues, such as sentence level errors, thesis statements, essay planning and organization, and beginning college research. The Center also houses a computer lab that is available for student use to work on papers, conduct library and internet research, and develop their grammar and writing skills using self-directed educational software. Professional software is on all the computers to allow students to create presentations, and printing (regular and color), scanning and technical assistance is also available.

Math Activities Resource Center (MARC),
Building 61, Room 1318

Offers free tutoring to Mt. SAC students currently enrolled in Math 50 through Math 71. Resources for checkout include videos, calculators, textbooks and solutions manuals.

Transfer Math Activities Resource Center (T-MARC),
Building 61, Room 1314

The T-MARC offers free math tutoring to Mt. SAC students currently enrolled in Math 100 and above. A variety of resources for in-lab use and for take-home use are available.
INSTRUCTION AND LEARNING RESOURCES

Tech Ed Resource Center (TERC), Building 28B, Room 108
The Tech Ed Resource Center offers basic math, reading and writing assistance to all students enrolled in any technology or health course within the Technology and Health Division. Students are encouraged to drop in and receive assistance with instructors and tutors or study independently. In-center check out materials include: text books, calculators, rulers and paper supplies.

Additional support services include:
- Computer use
- Study groups
- Career workshops
- Printing capability
- Assessment testing
- Individualized Education Plans
- Applied activities
- And more!
  For additional information, please contact TERC at ext. 4597.

LIBRARY AND LEARNING RESOURCES

Learning Assistance Center, Building 6, South Entrance, Lower Level, Learning Technology Center
The Learning Assistance Center offers instruction for students who need to review pre-collegiate skills in math, reading, and writing. The center additionally offers free student services including tutoring, assessment of skills, and support in developing a personalized study plan.

Tutorial Services in the Learning Assistance Center provides free tutoring to all Mt. San Antonio College students, both drop-in and study group tutoring. Regularly scheduled tutors assist students with their course work in most subject areas and with their study skills techniques.

The Learning Lab computers and audio-visual equipment are available to all students in the community. The computers enable students to use the Internet for research, to communicate with instructors through e-mail, to view multimedia programs, to use word processing, to develop multimedia research projects, and to supplement classroom activities through computer-assisted instruction.

Library, Building 6, North Entrance, Upper Level, Learning Technology Center
The Library offers students, faculty, and staff a wide variety of information resources for their research needs. In addition to traditional resources such as books, journals, newspapers, videos, career guides, and college catalogs, researchers may also search numerous full-text article databases and access lists of pre-evaluated Internet web sites. Reserve allows faculty to provide continuous access to course materials free of charge to students.

Professional librarians are available daily and evenings to teach library research techniques to entire classes by appointment and to individuals at the reference and information desk. The librarians at the library information desk are particularly helpful in assisting with all aspects of the research process from choosing a topic to searching for and evaluating information in print and electronic formats.

Media Services, Building 6, North Entrance, Upper Level, Learning Technology Center
Media Services has over three thousand DVDs and videos available for student viewing. Students must view the videos in the Media Services center.

COMPUTER AIDED GRAPHICS, VISUAL ARTS AND DESIGN PROGRAMS

Mt. San Antonio College offers many computer courses, majors, and certificates. Each of these has a special emphasis. The brief descriptions that follow are intended to help students select the correct computer specialization for their interests. Students planning to transfer to four-year institutions should consult the catalog of the school to which they plan to transfer for specific lower division requirements.

ARCHITECTURE & ENGINEERING DESIGN TECHNOLOGY DEPARTMENT

Architectural Technology
A.S. Degree & Certificates

Prime Focus: This is both a professional and vocational program that offers the full range of design and technical aspects of architecture, preparing students for employment, skill upgrade or transfer to universities. The program utilizes conventional and current computer graphics/design applications.

Job Market: Career opportunities include Architect, Architectural Designer, Drafter, CADD Operator, Model Builder, and Illustrator. (See Sections 7 and 8)

Engineering Design Technology
A.S. Degrees & Certificates

Prime Focus: This course of study prepares students for Computer-Aided Design and Drafting careers in technical fields, including Engineering Drafting and Design Technologies in Electro Mechanical, Civil, and Mechanical Design. An A.S. Degree is offered in Engineering Design Technology and 3 level certificates.

Job Market: The curriculum is designed to prepare students in computer-aided drafting and design (CADD) for careers in technical fields such as: Mechanical Design, Engineering, Engineering Technology, Manufacturing, Civil Design, and Aerospace. (See Sections 7 and 8)

COMMERCIAL AND ENTERTAINMENT ARTS DEPARTMENT

Advertising Design & Illustration
A.S. Degree

Prime Focus: Builds upon the traditional core art courses to provide students with basic skills and concepts utilized in the visual communication industries.

Job Market: Advertising design skills are employed any time an image or graphic design needs to be generated for commercial usage.

Aesthetics for Technology
Certificate

Prime Focus: Provides fundamental design skills and concepts related to art and technology-related industries.

Job Market: Skills acquired in this program may be utilized in a variety of visual communication industries including Art, Advertising, and Multimedia.

Animation— (Traditional, 2-D, and 3-D Digital Animation)
A.S. Degree & Certificates

Prime Focus: An integrated program of Traditional and Digital Animation providing skills for the entertainment arts.

Job Market: Supplies skills for a variety of entertainment arts careers including Traditional and Digital Animation, Motion Graphics, Gaming, Special Effects, and Web Animation.
Departments offering programs in computer programming, security, and servicing are: consult the catalog of the school to which they plan to transfer for specific lower division requirements.

COMPUTER PROGRAMMING, COMPUTER SECURITY, AND COMPUTER SERVICING

Mt. SAC offers many courses, certificates, and majors in the areas of computer programming, security, and servicing. Each of these has a special emphasis. The brief descriptions that follow are intended to help students select the correct computer specialization for their interests. Students planning to transfer should consult the catalog of the school to which they plan to transfer for specific lower division requirements.

Departments offering programs in computer programming, security, and servicing are:

- Computer Information Systems Department
- Electronics and Computer Technology Department
- Mathematics, Computer Science Department

**Web Page Design**

**Prime Focus:** To provide students with a course of study that includes the use of technology and design issues in a comprehensive way.

**Job Market:** Web design skills are used any time an organization, business, or individual utilizes the internet for marketing or advertising or as a promotional tool.

**Computer Graphic Design/Photography**

**Prime Focus:** Offers the full range of introductory to advanced courses in computer graphic design and photography. This program focuses on the application of the principles of visual communication design, and provides technical training in computer generated image production, manipulation, formatting and layout. The focus is on development, refinement and enhancement of visual design and technical skills.

**Job Market:** Free-Lance or Corporate Graphic Design; Marketing Photography; Advertising Design; Photographic Journalism; Commercial or Industrial Photography; Broadcast, Entertainment or Software Graphic Design. (See Sections 7 and 8)

**Photography**

**Prime Focus:** Offers the full range of introductory to advanced courses. As both an art and technical craft, photography offers a dynamic set of creative challenges to both the person behind the camera and a wide range of technical specialist in related disciplines. The program focuses on development, refinement and enhancement of visual imaging.

**Job Market:** Freelance or Corporate Photographer, Studio or Location Photographer, Art/Gallery Photographer or Archivist, Photography Developing/Printing Technician, Digital Photo Assistant, and Digital Editing Technician. (See Sections 7 and 8)

**Computer Information Systems Department**

**Prime Focus:** The curriculum of the CIS program covers such areas as basic computer literacy, microcomputer applications, the Internet, telecommunications, software development, computer networks, and operating systems. Software development incorporates creating graphical interfaces, client/server applications, object-oriented programming techniques, and web based applications.

Course offerings include introduction to information systems, microcomputer applications which include the Microsoft Office suite of applications, beginning and advanced relational database design in Access and Oracle, systems analysis and design, telecommunications and networking, Windows and Linux operating systems, information systems security, client/server side web programming and software development courses in: Visual Basic, Java, C++, and C#.

Mt. SAC's Regional Information Systems Security Center (RISSC) has developed new computer security courses to assist students with job-related and personal computer security demands. Courses most directly focused in this regard are CISS 11 – Practical Computer Security, CISS 13 – Principles of Information Systems Security, and CISS 15 – Operating Systems Security, along with RISSC's networking security courses.


**Electronics & Computer Technology Department**

**Prime Focus:** The Electronics Technology Programs prepare the student for a career as an electronic technician in manufacturing and service-based electronic and computer companies. Several computer-based courses are included in the program curricula.

**Job Market:** Career opportunities include Service Technician, Production Technician, Engineering Technician, Electronics Communication Technician, Computer Repair Technician, Networking Technician, and Assembler. (See Sections 7 and 8)

**Mathematics Department**

**Prime Focus:** Offers a full range of introductory to advanced courses in Computer Science, from fundamentals to data structures and algorithms. A variety of courses in Computer Science theory, as well as programming languages such as C/C++, and Assembly prepare students for a successful career in software development and programming.

**Job Market:** Entry level positions in software development as programmers, systems analysts, and applications software programmers. The Computer Science program is also a transfer program designed to fulfill the requirements for the first two years of a B.S. Degree in Computer Science. (See Sections 7 and 8)
Section 6

Campus Facilities
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<td>Building 1B, Ext. 4328</td>
<td>The bookstore, “SacBookRac,” is located in Building 9A on the north end of the campus. Students are encouraged to buy books early, especially if they are interested in purchasing used books (first-come/first-served). In addition to basic textbooks, general trade and paperback books, sundries, greeting cards, soft goods, and gifts are also available.</td>
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<td>Athletic Facilities, Ext. 4630</td>
<td>Hilmer Lodge Stadium, a 15,000-seat football and track facility, is located in the southeast section of the College campus. This is the home of the world famous “Mt. SAC Relays.” Other athletic facilities include tennis courts, and volleyball courts, as well as a cross-country course, baseball field, softball field, soccer field, a 1,470-seat gymnasium, wrestling gym, strength-training facilities, an Olympic size swimming pool, and an Exercise Science/Wellness Center.</td>
<td>Athletic Facilities, Ext. 4180</td>
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<td>Auxiliary Services, Building 9D, Ext. 4470</td>
<td>The Auxiliary Services/Accounting Office serves students, faculty, staff, and the campus community. The following services are provided by this office:</td>
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<td>Campus Café</td>
<td>Building 8, Ext. 4105</td>
<td>Common Grounds</td>
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<td>Common Grounds</td>
<td>Building 19C, Ext. 4624</td>
<td>Common Grounds located inside the Campus Café, features Starbucks coffees, wireless Internet access, and Wednesday evening poetry readings.</td>
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<td>Convenience Stores</td>
<td>All stores offer a variety of snack foods, cold and hot beverages, and school and test supplies.</td>
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<td>Building 9A, Ext. 4497</td>
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<td>Building 40, Ext. 6216</td>
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<td>Performing Arts Center</td>
<td>The Mt. San Antonio College Performing Arts Center is a 66,770 square foot facility that provides instructional and performance accommodations to the three main discipline areas of Theatre, Music, and Dance. The Performing Arts Center was designed as a technological, state-of-the-art instructional facility to prepare Mt. San Antonio College students for careers in the performing arts.</td>
<td>Performing Arts Center</td>
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<td>The Sophia B. Clarke Theater</td>
<td>is a formal 415-seat, full proscenium theater that wraps the audience around a performance. By providing a circular form and box seats at the perimeter, audience intimacy with the stage is maximized. The stage and fly tower are at a professional scale and contain equipment equal to the finest state-of-the-art theaters both regionally and internationally.</td>
<td>Performing Arts Center</td>
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Campus Facilities

The Music Recital Hall provides for intimate musical performances. The Recital Hall is a 250-seat acoustical space richly articulated with reflective surfaces of maple wood and acoustical plaster; it is acoustically shaped with a 43’ high ceiling. Sound reflectors above the stage further support acoustical distribution.

The Studio Theater adjacent to the Clarke Theater is surrounded by a scene shop, costume shop, dressing rooms, and faculty offices. The 40’ x 50’ x 40’ theater allows for total dramatic performance flexibility. An 18’ lighting grid allows light and scene flexibility. The Studio Theater is such a flexible facility that it can accommodate most any seating and scene configuration.

The Dance Studio is a 56’ x 85’ x 30’ high mirrored room that allows for a grand level of physical movement. With its ceiling and upper walls painted white and bathed in natural lighting, it is an appealing and brilliant space.

Each of the three venues was designed to provide state-of-the-art acoustical quality and technical performance capabilities that put the Mt. SAC Performing Arts Center on a level with the finest theaters in the region.

Performing Arts Center Box Office
Box Office Phone: (909) 468-4050
Box Office Fax: (909) 468-4031
The Mt. San Antonio College Performing Arts Center Box Office is located in the Performing Arts Center Complex (off Grand Avenue) adjacent to the Sophia B. Clarke Theater. The Box Office is open Monday - Friday from 12:00 p.m. to 5:00 p.m. and two hours prior to a scheduled performance. The current season’s brochure of events is available through the Box Office.

Ticket orders are accepted over the telephone, through the mail, in person, or by fax. Mastercard, Visa, Discover, and American Express are accepted. All phone-in and mail-in orders are subject to a $3.00 service charge.

Tickets may be exchanged for another performance of the same production up to 24 hours before the performance. If patrons are unable to attend a performance, tickets may be returned and the college will issue a receipt for a tax-deductible donation. All tickets are non-refundable.

Planetarium, Ext. 2050
The planetarium offers instructional support for college classes, as well as a wide variety of public programs on a regular basis. Information on planetarium shows is available through a 24-hour “hotline.” Please call (909) 594-5611, Ext. 3810. Special programs are offered for elementary and secondary school groups by reservation. Contact the College’s Campus Events office, Ext. 4794, for further information.

Radio Station and Cable TV Station, Ext. 4678
KSAK, 90.1 FM, is the campus radio station broadcasting to the community. The Community College Instructional Network (CCIN), a distance learning network offering twenty-six credit courses via televised lessons to forty-two community colleges, originates from the Mt. San Antonio College Broadcast Studio.

Wildlife Sanctuary, Ext. 4425
This ten-acre parcel, located on the southwestern portion of the Mt. San Antonio College campus includes a stream, lake, pond, swamp, meadow, and woodland. The sanctuary has been set aside as a place where plants and animals exist in a natural balance. Paths through the sanctuary provide access for visitors. For guided tours, contact the College’s Campus Events office at Ext. 4794.
Section 7

Programs of Study
Leading to a Certificate
PROGRAMS OF STUDY LEADING TO A CERTIFICATE

Mt. San Antonio College offers two different types of certificates for credit programs of study:

- "Certificates of Achievement" are awarded for completion of an approved program of study meeting certain requirements of the California Community College Chancellor’s Office. In terms of total unit values and other criteria, the possession of such a certificate is favorably recognized by business and industry and is frequently a requirement for professional advancement. Included in the Certificates of Achievement are a wide variety of occupational certificates as well as two certificates designed to reflect completion of general education requirements for students preparing to transfer to a California State University campus (CSU General Education Breadth) or to a campus of the University of California or CSU (Intersegmental General Education Transfer Curriculum (IGETC)). The awarding of all Certificates of Achievement is noted on a student’s official transcript.

- "Skills Certificates" are lower-unit certificates in various occupational areas. Although the awarding of Skills Certificates is not noted on a student’s official transcript, the student may apply for and receive a documentation certificate from the college that may be of value in documenting knowledge and skills to potential employers. In many cases, entry-level Skills Certificates may be part of a ladder-track of increasing levels of preparation in an occupational area, and courses used to complete them may form a core of requirements that are augmented as students pursue higher levels of proficiency toward a Certificate of Achievement.

Note: The unit requirement for Skills Certificates is below that required for some forms of financial aid eligibility. Students should consult with the Financial Aid Office to determine whether a particular program of study qualifies for financial aid.

Students who desire help in planning for a vocation or profession, or to prepare for transfer to a four-year institution, should seek the advice of a counselor.

Requirements for all certificates include the following:

- At least 1/2 of the credits earned toward the certificate must be completed at Mt. San Antonio College.
- A grade of "C" or better must be earned in each course to be applied to the certificate.
- For certificates in CSU General Education Breadth and IGETC only, students must submit an Application for Certificate form in the Admissions Office during the last semester of the certificate program.

Note: Completion of a Certificate of Achievement for a CSU General Education Breadth or IGETC is not the same as CSU or IGETC Certification for transfer. For more information on certification, see pages 102-110 of this catalog.

Mt. San Antonio College also awards Certificates of Competency for certain non-credit programs of study. Information on these certificates may be found on pages 216-224.
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<td>Hospitality: Restaurant ............................ 60</td>
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<td>Information and Operating Systems Security .... 60</td>
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<td>Introduction to Computer .......................... 60</td>
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<td>Information Technology ............................ 60</td>
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<td>Nutrition Program Assistant — Level I .......... 61</td>
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<td>Parametric Solid Modeling ........................ 62</td>
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</tr>
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<td>Welding ................................................. 62</td>
</tr>
</tbody>
</table>
### Programs of Study Leading to a Certificate

#### Certificates of Achievement

**CSU General Education Breadth**

Completion of coursework for this certificate is intended for students who are planning to transfer to a public 4-year university within California. Most students who follow this pattern are preparing to transfer to a University of California campus, but this pattern is also accepted by the California State University system. Completion of courses for the certificate will permit students to transfer without the need to take additional lower-division general education courses to satisfy university general education requirements.

**Intersegmental General Education Transfer Curriculum (IGETC)**

Completion of coursework for this certificate is intended for students who are planning to transfer to a public 4-year university within California. Most students who follow IGETC are planning to transfer to a University of California campus, but this pattern is also accepted by the California State University system. Completion of courses for this certificate will permit students to transfer without the need to take additional lower-division general education courses to satisfy university general education requirements.

### Accounting

#### Accounting and Management Department Certificate T0502

The Accounting Certificate incorporates various accounting courses that prepare the student for entry-level positions and/or professional advancement in a variety of accounting jobs. These jobs include general accounting, cost accounting, payroll, inventory management, asset management, and credit and collections, financial analysis, etc.

#### Requirements for the Certificate

| Required courses: Completion of the Accounting: Financial Planning Certificate (21 Units) or Accounting: Managerial Certificate (19 Units) as follows: |  |
| BUSA 7 Principles of Accounting | 5.0 CSU,UC |
| BUSA 8 Principles of Accounting | 5.0 CSU,UC |
| BUSA 21 Cost Accounting | 4.0 |
| BUSA 58 Federal Income Tax Law | 3.0 |
| BUSA 75 Using Microcomputers in Financial Accounting | 1.0 |
| BUSA 81 Work Experience in Accounting | 1.0 |
| BUSA 76 Using Microcomputers in Managerial Accounting | 1.0 |
| BUSA 25 Business Communications | 3.0 CSU |

#### Accounting - Computerized

#### Accounting and Management Department Certificate L0503

The Accounting - Computerized Certificate provides the student with basic accounting skills and knowledge, together with additional training in computer applications common to the accounting industry. This certificate program prepares the student for an entry-level position as a computerized accounting clerk. Common duties performed in this field are utilization of accounting software programs for posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting, and account analysis.

#### Requirements for the Certificate

| Required courses: Completion of the Accounting - Bookkeeping Certificate (9-10 Units) as follows: |  |
| BUSA 7 Principles of Accounting | 5.0 CSU,UC |
| BUSA 8 Principles of Accounting | 5.0 CSU,UC |
| BUSA 75 Using Microcomputers in Financial Accounting | 1.0 |
| BUSA 81 Work Experience in Accounting | 1.0 |
| BUSO 25 Business Communications | 3.0 CSU |

#### Accounting - Financial Planning

#### Accounting and Management Department Certificate L0599

The Accounting - Financial Planning Certificate provides the student with basic accounting skills and knowledge, together with additional training in computer applications common to the accounting industry. This certificate program prepares the student for an entry-level position as a computerized accounting clerk. Common duties performed in this field are utilization of accounting software programs for posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting, and account analysis.

#### Requirements for the Certificate

| Required courses: |  |
| BUSA 7 Principles of Accounting | 5.0 CSU,UC |
| BUSA 8 Principles of Accounting | 5.0 CSU,UC |
| BUSA 75 Using Microcomputers in Financial Accounting | 1.0 |
| BUSA 81 Work Experience in Accounting | 1.0 |
| BUSO 25 Business Communications | 3.0 CSU |

### Accounting - Managerial

#### Accounting and Management Department Certificate L0533

The Accounting - Managerial Certificate provides the student with basic accounting skills and knowledge, together with additional training in computer applications common to the accounting industry. This certificate program prepares the student for an entry-level position as a computerized accounting clerk. Common duties performed in this field are utilization of accounting software programs for posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting, and account analysis.

#### Requirements for the Certificate

| Required courses: |  |
| BUSA 7 Principles of Accounting | 5.0 CSU,UC |
| BUSA 8 Principles of Accounting | 5.0 CSU,UC |
| BUSA 75 Using Microcomputers in Financial Accounting | 1.0 |
Administrative Assistant - Level II
Office Technology Department
Certificate T0514
The Level II Certificate prepares students for clerical positions where office organization and transcription skills are needed.

Requirements for the Certificate
Required courses:
- Completion of the Administrative Support - Level I course work (10.5 - 11 units) as follows:
  - BUSO 5 Business English 3.0
  - COMP 1A Computer Keyboarding 2.0 CSU
  - COMP 2A Computer Keyboarding 2.0 CSU,UC
  - COMP 12 Office Computer Applications 4.0 CSU,UC
  - BUSO 25 Business Communications 3.0 CSU
  - BUSO 26 Oral Communications for Business 3.0
  - BUSO 96A Business Vocabulary 1.5
  - COMP 11 Internet Research for Business 2.0 CSU
  - COMP 13 Using Web Page Software 4.0 CSU
  - COMP 60 Business Publications 4.0 CSU
  - COMP 150 Basic PowerPoint 1.0
  - COMP 50 Desktop Presentations Using PowerPoint

Total Units 28.0

Administrative Assistant - Level III
Office Technology Department
Certificate T0517
The Level III Certificate prepares students for administrative assistant positions where a variety of skills are needed.

Requirements for the Certificate
Required courses:
- Completion of the Administrative Assistant - Level I course work (14 units) as follows:
  - BUSO 5 Business English 3.0
  - COMP 1 Computer Keyboarding 4.0 CSU
  - COMP 1A Computer Keyboarding 2.0 CSU
  - COMP 1B Computer Keyboarding 2.0 CSU
  - COMP 12 Office Computer Applications 4.0 CSU,UC
  - CISB 15 Microcomputer Applications 4.0 CSU,UC
  - COMP 28 Office Management Skills 3.0

Required courses:
- Completion of the Administrative Assistant - Level II course work (14 units) as follows:
  - BUSO 25 Business Communications 3.0 CSU
  - COMP 2 Intermediate Computer Keyboarding 4.0
  - COMP 20 Word for the Business Professional 4.0
  - COMP 68 Transcription Techniques 3.0

Plus the following courses:
- Level III as follows:
  - BUSO 26 Oral Communications for Business 3.0
  - BUSO 96A Business Vocabulary 1.5
  - COMP 11 Internet Research for Business 2.0 CSU
  - COMP 13 Using Web Page Software 4.0 CSU
  - COMP 60 Business Publications 4.0 CSU
  - COMP 150 Basic PowerPoint 1.0
  - COMP 50 Desktop Presentations Using PowerPoint

Total Units 43.5 - 46.5

Air Conditioning and Refrigeration
Air Conditioning, Water & Welding Technologies
Certificate T0909
This program is designed to prepare the student for employment in the broad field of air conditioning, heating, and refrigeration. It leads to occupations in design, manufacturing, operation, sales, distribution, installation, maintenance, and repair. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

Requirements for the Certificate
Required courses:
- AIRC 10 Technical Mathematics 2.0
- AIRC 11 Welding For Air Conditioning and Refrigeration 2.0
- AIRC 12 Air Conditioning Codes and Standards 3.0
- AIRC 20 Refrigeration Fundamentals 3.0
- AIRC 25 Electrical Fundamentals 4.0
- AIRC 26A Heat Pump Fundamentals 1.5
- AIRC 26B Gas Heating Fundamentals 2.0
- AIRC 30 Load Calculations 3.0
- AIRC 31 Commercial Electrical 4.0
- AIRC 32A Air Properties and Measurement 1.5
- AIRC 32B Air Distribution Systems 1.5
- AIRC 34 Advanced Mechanical Refrigeration 4.0
- AIRC 37 Pneumatic Controls 2.0
- AIRC 39 Building Automation Systems 4.0

Total Units 37.5
Programs of Study Leading to a Certificate

**Aircraft Powerplant Maintenance Technology - Evening**

This program prepares students to enter employment as a certified powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate of Science Degree or a Certificate. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

This program offers a day (full-time) or evening (part-time) program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B.

Successful completion of this program enables students to take the FAA examination in General and Powerplant. Passing the General Exam plus the Airframe and/or Powerplant Exam provides certification as an Aircraft Maintenance Technician which is required for employment in this field. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6.0</td>
</tr>
<tr>
<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AIRM 95A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 95B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 96A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
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<td>Aircraft Powerplant Maintenance Technology</td>
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<tr>
<td>AIRM 98B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 39.0**

**Recommended Electives:**

- AIRM 74 Aircraft Maintenance Technology - Work Experience
- EDT 12 Technical Engineering Drawing II
- ELEC 90 Survey of Electronics
- MFG 70 Technical Mathematics - Manufacturing Applications
- PHYS 1 Physics

**Airframe Maintenance Technology - Day**

This program prepares students to enter employment as a certified airframe technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate of Science Degree or a Certificate. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

This program offers a day (full-time) or evening (part-time) program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B.

Successful completion of this program enables students to take the FAA examinations in Airframe and General. Passing the General Exam plus the Airframe and/or Powerplant Exam provides certification as an Aircraft Maintenance Technician which is required for employment in this field. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
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<tr>
<td>AIRM 66B</td>
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</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
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<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
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<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
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<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
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<td>AIRM 73</td>
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<td>AIRM 90B</td>
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<td>AIRM 91A</td>
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<td>AIRM 91B</td>
<td>Airframe Maintenance Technology</td>
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<td>AIRM 92A</td>
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<td>AIRM 92B</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 93B</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
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</tbody>
</table>

**Total Units 41.0**

**Recommended Electives:**

- AIRM 74 Aircraft Maintenance Technology - Work Experience
- EDT 12 Technical Engineering Drawing II
- ELEC 90 Survey of Electronics
- MFG 70 Technical Mathematics - Manufacturing Applications
- PHYS 1 Physics

**Successful completion of this program enables students to take the FAA examinations in Airframe and General. Passing the General Exam plus the Airframe and/or Powerplant Exam provides certification as an Aircraft Maintenance Technician which is required for employment in this field. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.**

**Requirements for the Certificate**

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<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>AIRM 74</td>
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<tr>
<td>AIRM 75</td>
<td>Aircraft Maintenance Technology</td>
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<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
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<td>AIRM 92A</td>
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<td>AIRM 93A</td>
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<tr>
<td>AIRM 93B</td>
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<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 39.0**

**Recommended Electives:**

- AIRM 74 Aircraft Maintenance Technology - Work Experience
- EDT 12 Technical Engineering Drawing II
- ELEC 90 Survey of Electronics
- MFG 70 Technical Mathematics - Manufacturing Applications
- PHYS 1 Physics
Alcohol/Drug Counseling
Public Services Department
Certificate T2101
Upon completion of the required courses with a grade of "C" or better, a Certificate in Alcohol/Drug Studies will be awarded by the Technology and Health Division.

Requirements for the Certificate
Required core courses:
- AD 1 Alcohol/Drug Dependency 3.0 CSU
- AD 2 Physiological Effects of Alcohol/Drugs 3.0 CSU
- AD 3 Chemical Dependency: Intervention, Treatment and Recovery 3.0 CSU
- AD 4 Issues in Domestic Violence 3.0
- AD 5 Chemical Dependency: Prevention and Education 1.5 CSU
- AD 6 Dual Diagnosis 3.0 CSU

Required skill courses:
- AD 8 Group Process and Leadership 3.0
- AD 9 Family Counseling 3.0
- AD 10 Client Record and Documentation 1.5
- AD 11 Techniques of Intervention and Referral 3.0

Required field work courses:
- AD 13 Internship/Seminar 3.5 CSU
- AD 14 Advanced Internship/Seminar 3.5 CSU

Recommended Electives:
- AD 66 Portfolio 1.5

Additional Information:
- English Language Skills: Although proficiency in English is not a criteria for admission, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and others.

Animation - Digital 2-Dimensional Commercial and Entertainment Arts Certificate T1011
The Digital 2-D Certificate provides training for creative careers that integrate animation with video, audio, graphics and special effects for Websites, broadcast, film, presentation or mobile content. The Animation Program offers an integrated/interdisciplinary approach to prepare students to meet current and future job market demands. The student will be given a balanced blend of art and technology-based skills which are essential for today's careers in animation. The program offers an A.S. Degree and three Certificates. Course content is driven by industry needs in order to provide the student with the best possible preparation for a career in animation.

Requirements for the Certificate
Required courses:
- ANIM 101 Drawing - Gesture and Figure 3.0 CSU
- ANIM 104 Drawing Fundamentals 3.0 CSU
- ANIM 106 Principles of Animation 3.0 CSU
- ANIM 113 Storyboarding 3.0
- ANIM 116 Character Development 1.5

Recommended Electives:
- ANIM 105 Figure in Motion 3.0
- ANIM 109 Advanced Principles of Animation 1.5
- ANIM 130 Introduction to 3-D Computer Animation 3.0
- ANIM 137A Work Experience in New Digital Media 3.0
- ANIM 148 Demo-Reel 1.5
- ANIM 149 Advanced Animation 3.0
- ANIM 175 Web Animation With Flash 3.0
- PHOT 10 Beginning Photography 3.0

Animation - Digital 3-Dimensional Commercial and Entertainment Arts Certificate T1012
The Digital 3-D Certificate provides training in Digital Animation, including character modeling, lighting, texture, environment and special effects that lead to creative careers in film, television and the video game industry. The Animation Program offers an integrated/interdisciplinary approach to prepare students to meet current and future job market demands. The student will be given a balanced blend of art and technology-based skills which are essential for today's careers in animation. The program offers an A.S. Degree and three Certificates. Course content is driven by industry needs in order to provide the student with the best possible preparation for a career in animation.

Requirements for the Certificate
Required courses:
- ANIM 101 Drawing - Gesture and Figure 3.0 CSU
- ANIM 130 Introduction to 3-D Computer Animation 3.0
- ANIM 137A Work Experience in New Digital Media 3.0
- ANIM 148 Demo-Reel 1.5
- ANIM 149 Advanced Animation 3.0
- ANIM 175 Web Animation With Flash 3.0
- PHOT 10 Beginning Photography 3.0

Recommended Electives:
- ANIM 105 Figure in Motion 3.0
- ANIM 109 Advanced Principles of Animation 1.5
- ANIM 130 Introduction to 3-D Computer Animation 3.0
- ANIM 137A Work Experience in New Digital Media 3.0
- ANIM 175 Web Animation With Flash 3.0
- PHOT 10 Beginning Photography 3.0

Animation - Traditional Commercial and Entertainment Arts Certificate T1010
The Traditional Certificate provides training based around the principles of storytelling and animation. These skills lead to careers in television, film, Internet and gaming as an animator, character designer, storyboard artist, layout artist or director.

Requirements for the Certificate
Required courses:
- ANIM 101 Drawing - Gesture and Figure 3.0 CSU
- ANIM 104 Drawing Fundamentals 3.0 CSU
- ANIM 106 Principles of Animation 3.0 CSU
- ANIM 113 Storyboarding 3.0
- ANIM 116 Character Development 1.5
- ANIM 130 Introduction to 3-D Computer Animation 3.0
- ANIM 132 Modeling, Texture Mapping and Lighting 3.0
- ANIM 134 Visual Effects I: Dynamics 1.5

Recommended Electives:
- ANIM 105 Figure in Motion 3.0
- ANIM 109 Advanced Principles of Animation 1.5
- ANIM 130 Introduction to 3-D Computer Animation 3.0
- ANIM 137A Work Experience in New Digital Media 3.0
- ANIM 175 Web Animation With Flash 3.0
- PHOT 10 Beginning Photography 3.0
Programs of Study Leading to a Certificate

**Architectural Technology - Technology Concentration Level II**
Architectural and Engineering Design Department
Certificate T0203
This Level II Technology Concentration Certificate focuses upon the preparation of architectural construction drawings. It includes an overview of construction practices and provides students with an option of direct employment in the field or transfer to the professional school of architecture. The Level II certificate provides a broad overview of the fundamental skills essential to the field, suitable for entry-level employment as an office assistant.

### Requirements for the Certificate
**Required courses:**
Completion of the Architectural Technology Level I course work (21) units.

**PLUS**
- ARCH 14 Building and Zoning Codes 3.0
- ARCH 15 Architectural Working Drawings - I 3.0
- ARCH 18 Architectural Computer Aided Design Elements 3.0
- ARCH 26 Architectural Computer Aided Design Elements 3.0
- EDT 20 Technical Descriptive Geometry 3.0
- INSP 70 Elements of Construction 3.0
- ARCH 29 Design IV - Advanced Project 3.0

**Total Units: 39.0 - 40.5**

### Recommended Electives:
- ANIM 107 Figure in Motion
- ANIM 130 Introduction to 3-D Computer Animation
- ANIM 137A Work Experience in New Media
- ARTD 17B Drawing: Life
- ARTD 20 Design: Two Dimensional
- ARTS 22 Design: Three Dimensional
- ARTS 44A Sculpture: Life
- PHOTO 8 Digital Photography

### Architectural Technology - Design Concentration Level III
Architectural and Engineering Design Department
Certificate T0206
The Level III Design Concentration Certificate provides additional expertise in portfolio development and professional practice. The Level III Design Concentration Certificate prepares students for employment as an intermediate design assistant or presentation specialist.

### Requirements for the Certificate
**Required courses:**
Completion of the Architectural Technology Design Concentration course work (42) units.

**PLUS**
- ARCH 27 Design III - Environmental Design 3.0
- ARCH 29 Design IV - Advanced Project 3.0

**Total Units: 51.0**

### Architectural Technology - Design Concentration Level II
Architectural and Engineering Design Department
Certificate T0205
This Level II Design Concentration Certificate focuses upon studio design, drawing, and presentation skills, including modeling, sketching, and computer applications. The student will prepare a portfolio of creative design assignments. The Level II Design Concentration Certificate prepares students for employment as a design assistant or presentation specialist.

### Requirements for the Certificate
**Required courses:**
Completion of the Architectural Technology Level I and II course work (43) units.

**PLUS**
- ARCH 14 Building and Zoning Codes 3.0
- ARCH 15 Architectural Working Drawings - I 3.0
- ARCH 18 Architectural Computer Aided Design Elements 3.0
- ARCH 26 Architectural CAD Working Drawings 3.0
- EDT 20 Technical Descriptive Geometry 3.0
- INSP 70 Elements of Construction 3.0
- ARCH 29 Design IV - Advanced Project 3.0

**Total Units: 50.0 - 52.0**

### Architectural Technology - Design Concentration Level III
Architectural and Engineering Design Department
Certificate T0206
The Level III Design Concentration Certificate provides additional expertise in portfolio development and professional practice. The Level III Design Concentration Certificate prepares students for employment as an intermediate design assistant or presentation specialist.

### Requirements for the Certificate
**Required courses:**
Completion of the Architectural Technology Design Concentration course work (42) units.

**PLUS**
- ARCH 27 Design III - Environmental Design 3.0
- ARCH 29 Design IV - Advanced Project 3.0

**Total Units: 51.0**
Requirements for the Certificate

Level II course work (18 Units) as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
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<tbody>
<tr>
<td>BUSM 20 Principles of Business</td>
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<td>CSU, UC</td>
</tr>
<tr>
<td>BUSM 61 Business Organization</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSM 62 Human Resource Management</td>
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</tr>
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</table>

Required courses:

Level II as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 22 General Cultural Anthropology</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSM 60 Human Relations in Business</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSO 25 Business Communications</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSO 25A Business Communications A</td>
<td>1.5</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSO 25B Business Communications B</td>
<td>1.5</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Plus the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 70 Payroll and Tax Accounting</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CSIB 15 Microcomputer Applications</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
</tbody>
</table>

Total Units 18.0

Special Information:

Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Business: International - Level II Accounting and Management Department Certificate L0597

In the Business: International - Level II Certificate student will learn methods and approaches to managing the complexities of doing business in an international environment. Students acquire both theoretical knowledge and practical skills related to managing and marketing within the global arena. Students active in the workforce will acquire new skills that are highly desirable in a fast-paced dynamic global environment, with an emphasis on the small business perspective.

Requirements for the Certificate

Required courses:

Completion of the Business: International - Level I course work (9 Units) as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20 Principles of Business</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSM 51 Principles of International Business</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSM 36 Principles of Marketing</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Plus the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 61 Business Organization</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>and Management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BUSM 66 Small Business Management 3.0 CSU

PLUS

Select one (1) course from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 770 International Marketing Concepts</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CHIN 1 Beginning Chinese</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>FRCMH 1 Elementary French</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>GERM 1 Elementary German</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>ITAL 1 Elementary Italian</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>JAPN 1 Elementary Japanese</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>SPAN 1 Elementary Spanish</td>
<td>4.0</td>
<td>CSU, UC</td>
</tr>
</tbody>
</table>

Total Units 18.0 - 19.0

Special Information:

Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Business: Management - Level II Accounting and Management Department Certificate L0586

This certificate builds upon the Level I Certificate to provide students with proven business tools that will enhance their management careers. Students will be exposed to projects and business simulations that will lead to measurable successes. Business presentations, business planning, team building, conflict resolution, and computer use are core skills developed in this certificate.

Requirements for the Certificate

Required courses:

Completion of Business: Management Level I course work (9 units) as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 20 Principles of Business</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSM 61 Business Organization and Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSM 66 Small Business Management</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

PLUS

Additional required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 20 International Business Law</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSL 50 World Culture</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ANTH 22 General Cultural Anthropology</td>
<td>3.0</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>BUSM 52 Principles of Exporting and Importing</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Total Units 27.0 - 28.0

Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 51 Work Experience in Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSM 85 Special Issues in Marketing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Special Information:

Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.
Programs of Study Leading to a Certificate

Business: Management - Level III
Accounting and Management Department
Certificate T0526
Upon completion of the Business: Management - Level III Certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing business environment. Students will have a strategic perspective of production, marketing, accounting, international business and human resources. Completion of the Business: Management - Level III Certificate will lead to new opportunities and provide students with a solid foundation upon which to build a management career.

Requirements for the Certificate
Completion of the Business: Management - Level I and Level II course work (18.5 Units) as follows:
Level I as follows:
BUSB 20 Principles of Business 3.0 CSU
BUSB 61 Business Organization 3.0 CSU
and Management
BUSB 36 Principles of Marketing 3.0 CSU
Required courses:
Level II as follows:
BUSB 60 Human Relations in Business 3.0 CSU
BUSB 62 Human Resource Management 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU,UC
Plus the following courses:
Level III as follows:
BUSB 11 Fundamentals of Accounting 3.0 CSU
BUSB 61 Business Organization and Management 3.0 CSU
BUSB 62 Human Resource Management 3.0 CSU
BUSB 36 Principles of Marketing 3.0 CSU
Total Units 22.0
Special Information:
Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Business: Retail Management - Level III
Accounting and Management Department
Certificate T0521
Introductory statement: Students completing the advanced Level III Certificate will have knowledge and practical experience in business communication, leadership and financial controls. Successful completion of this certificate prepares students to handle the increasing diversity and complexity of modern retail management.

Requirements for the Certificate
Completed courses:
Completion of the Retail Management - Level I course work (9.5 Units) as follows:
BUSB 25 Business Communications 3.0 CSU
BUSB 50 Retail Store Management and Merchandising 3.0
FASH 62 Retail Store Management and Merchandising 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU,UC
Required courses:
Completion of the Retail Management - Level II course work (9.5 Units) as follows:
BUSB 25 Business Communications 3.0 CSU
BUSB 50 Retail Store Management and Merchandising 3.0
FASH 62 Retail Store Management and Merchandising 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU,UC
Total Units 18.0
Special Information:
Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Business: Small Business Management - Level II
Accounting and Management Department
Certificate L0588
The Business: Small Business Management - Level II Certificate provides students with practical small business tools. This certificate focuses on issues such as motivation, teamwork, and leadership skills that lead to enhanced productivity through the development of people. Completion of this certificate will lead to new career opportunities for those currently employed in the small business arena.

Requirements for the Certificate
Completed courses:
Completion of Business: Small Business Management - Level I course work (9 Units) as follows:
BUSB 20 Principles of Business 3.0 CSU,UC
BUSB 66 Small Business Management 3.0 CSU
BUSB 36 Principles of Marketing 3.0 CSU
Plus the following courses:
Level II as follows:
BUSB 20 Principles of Business 3.0 CSU,UC
BUSB 66 Small Business Management 3.0 CSU
BUSB 36 Principles of Marketing 3.0 CSU
Total Units 33.0
Special Information:
Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Business: Small Business Management - Level III
Accounting and Management Department
Certificate T0590
Upon completion of the Business: Small Business Management - Level III Certificate, students will have built a foundation of management strategies and practices which will enable them to prosper in an ever-changing small business environment. Computer skills applicable to small business will be developed. Students will have a strategic perspective across all small business functions. Students will acquire the skills and abilities necessary to build a successful small business career.

Requirements for the Certificate
Completed courses:
Completion of Business: Small Business Management Level I and II course work (18.5 Units) as follows:
BUSB 20 Principles of Business 3.0 CSU,UC
BUSB 66 Small Business Management 3.0 CSU
BUSB 36 Principles of Marketing 3.0 CSU
Required courses:
BUSB 60 Human Relations in Business 3.0 CSU
BUSB 62 Human Resource Management 3.0 CSU
Plus the following courses:
Level III as follows:
BUSB 7 Principles of Accounting - Financial 5.0 CSU,UC
BUSB 10 Principles of Continuous Quality Improvement 3.0
CISB 15 Microcomputer Applications 4.0 CSU,UC
Total Units 30.0
Special Information:
Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Children’s Program Certificate: Administration
Child Development
Certificate T1313
The Children’s Program Certificate: Administration Specialization is designed for the student who desires general knowledge about Early Childhood Development and skills in administering programs for young children. This certificate meets or exceeds Title 22 education requirements for Center Director. Direct experience with
children is highly recommended to complete preparation to be an effective administrator.

### Requirements for the Certificate

**Required courses:**
- Child, Family and Community: 3.0 CSU,UC
- Principles/Practices: 3.0 CSU
- Survey of Child Development Programs: 3.0 CSU
- Child Growth and Development: 3.0 CSU,UC
- Child Growth and Development - Honors: 3.0 CSU,UC
- Health, Safety and Nutrition: 3.0 CSU
- Children With Special Needs: 3.0 CSU
- Guidance and Discipline: 1.0 CSU

**PLUS**
- Select three (3) courses from:
  - Language Arts & Art Media for Young Children: 3.0
  - Music and Motor Development for Young Children: 3.0
  - Creative Science and Math for Young Children: 3.0
  - Infant/Toddler Care and Development: 3.0

**Additional required courses:**
- Multicultural Education: 3.0
- Administration of Child Development Programs: 3.0 CSU
- Management/Marketing/Personnel for ECD Programs: 3.0

**PLUS**
- Select four (4) units from:
  - Small Business Management: 3.0 CSU
  - Child, Family and Community: 3.0 CSU,UC
  - Principles/Practices: 3.0 CSU
  - Survey of Child Development Programs: 3.0 CSU

---

### Children's Program Certificate: General - Level II

**Child Development Certificate:**
- Required courses: 3.0 CSU
- Electives: 1.0 CSU
- Total Units: 4.0

**General - Level II**
- Completion of the Children's Program work:
- Child, Family and Community: 3.0 CSU,UC
- Principles/Practices: 3.0 CSU
- Survey of Child Development Programs: 3.0 CSU
- Child Growth and Development: 3.0 CSU,UC
- Child Growth and Development - Honors: 3.0 CSU,UC
- Health, Safety and Nutrition: 3.0 CSU
- Children With Special Needs: 3.0 CSU
- Guidance & Discipline: 1.0 CSU
- Infant/Toddler Care and Development: 3.0 CSU
- Creative Science and Math: 3.0
- Total Units: 19.0

---

### Child Development Certificate: Small Business Management

**Certificate T1311**
- The Children's Program Small Business Management Certificate provides information for selecting and owning a preschool.
- Required courses:
  - Human Relations in Business: 3.0 CSU
  - Small Business Management: 3.0 CSU
  - Business English: 3.0
  - Child, Family and Community: 3.0 CSU,UC
  - Principles/Practices: 3.0 CSU,UC
  - Survey of Child Development Programs: 3.0 CSU
  - Total Units: 28.0

---

### Children's Program Certificate: Teaching

**Certificate T1312**
- The Children's Program Certificate: Teaching Specialization is designed for the student who desires knowledge about Early Childhood Development and skills for teaching young children. This certificate meets or exceeds Title 22 education requirements for fully qualified teachers and is expected to meet or exceed Title 5 education requirements for Teacher Level (with 16 units of G.E. English, math or Science, Social Science and Humanities).
- Required courses:
  - Child, Family and Community: 3.0 CSU,UC
  - Principles/Practices: 3.0 CSU
  - Survey of Child Development Programs: 3.0 CSU
  - Total Units: 33.0

---

### Recommended Electives:

**BUUS 70** Payroll and Tax Accounting
- **BUUS 71** Financial Planning
- **BUSL 18** Business Law
- **BUSL 18H** Business Law - Honors
- **BISM 20** Principles of Business
- **BISM 61** Business Organization and Management
- **BUUS 25** Business Communications
- **BUSL 33** Advertising and Promotion
- **BUSL 36** Principles of Marketing
- **CISB 11** Computer Information Systems
### Programs of Study Leading to a Certificate

**CHLD 10H** Child Growth and Development - 3.0 CSU, UC Honors

**CHLD 64** Health, Safety and Nutrition of Young Children - 3.0 CSU

**CHLD 68** Children With Special Needs - 3.0 CSU

**CHLD 84** Guidance and Discipline in Child Development Settings - 1.0 CSU

**Plus the following courses:**

**CHLD 50** Multicultural Education: Anti-Bias Perspective - 3.0

**CHLD 66** Early Childhood Development Observation - 2.0 CSU

**CHLD 66L** Early Childhood Development Observation Laboratory - 1.0 CSU

**CHLD 67** Early Childhood Development Participation - 2.0 CSU

**CHLD 67L** Early Childhood Development Participation Laboratory - 1.0 CSU

**CHLD 69** Early Childhood Development Field Work Seminar - 2.0 CSU

**CHLD 75** Supervising Adults in Early Childhood Settings - 2.0

**CHLD 91** Early Childhood Development Field Work - 1.0 CSU

**PLUS**

Select two (2) courses from:

**CHLD 51** Early Literacy in Child Development - 3.0

**CHLD 61** Language Arts & Art Media for Young Children - 3.0

**CHLD 62** Music and Motor Development for Young Children - 3.0 CSU

**CHLD 63** Creative Sciences and Math for Young Children - 3.0

**Total Units** 39.0

#### Computer and Networking Technology - Level I

**Electronics and Computer Technology Department Certificate L0795**

The Computer and Networking Technology Certificates prepare students to enter the computing and networking fields as service technicians. The program provides foundations in basic electronics, computer servicing, operating systems, network/server servicing, and customer relations skills. The student will be prepared to perform installation, software configuration, and the maintenance, operation, troubleshooting and repair of computers and their associated networking software/hardware. In addition, the program prepares students to take the A+, Network+, Server+, and Security+ certification tests offered at testing centers throughout the country. These certifications are recognized worldwide as industry benchmarks for computer and networking technicians. Further, the student will develop the requisite skills upon which to build in order to seek additional certifications.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits (DC)</td>
<td>4.0</td>
</tr>
<tr>
<td>CNET 60</td>
<td>A+ Certification Preparation</td>
<td>3.0</td>
</tr>
<tr>
<td>CNET 62</td>
<td>Network+ Certification Preparation</td>
<td>3.0</td>
</tr>
<tr>
<td>CNET 64</td>
<td>Security+ Certification Preparation</td>
<td>3.0</td>
</tr>
<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 30.0 - 31.0

### Requirements for the Certificate

**Required courses:**

- **CNET 50**: PC Servicing
- **CNET 52**: PC Operating Systems
- **CNET 54**: PC Troubleshooting
- **CNET 60**: A+ Certification Preparation
- **ELEC 11**: Technical Applications in Microcomputers
- **CISB 15**: Microcomputer Applications
- **ELEC 50A**: Electronic Circuits (DC)
- **ELEC 50B**: Electronic Circuits (AC)
- **ELEC 56**: Digital Electronics

#### Plus the following courses:

- **Level I as follows:**
  - **CNET 56**: Computer Networks
  - **CNET 62**: Network+ Certification Preparation
  - **CNET 64**: Server+ Certification Preparation
  - **CNET 66**: Security+ Certification Preparation
  - **TECH 60**: Customer Relations for the Technician

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 51</td>
<td>Electronic Devices</td>
<td>1.0</td>
</tr>
<tr>
<td>ELEC 74</td>
<td>Microprocessor Systems</td>
<td>1.0</td>
</tr>
<tr>
<td>EST 54</td>
<td>Cabling and Wiring Standards</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Units** 44.0 - 45.0

**Recommended Electives:**

- **ELEC 55**: Electronic Devices
- **ELEC 74**: Microprocessor Systems
- **EST 54**: Cabling and Wiring Standards

### Computer Systems Technology

**Electronics and Computer Technology Department Certificate L0924**

This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry. This includes microprocessor programming codes and microprocessor interfacing circuits. Two additional certificate programs are also available: a one-year certificate in Electronics Technology and a two-year certificate with the same title as the A.S. Degree. All students completing an Electronic A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License, and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI 10</td>
<td>Operating the Macintosh Computer</td>
<td>3.0</td>
</tr>
<tr>
<td>GRAP 10</td>
<td>Photo Editing with Photoshop</td>
<td>3.0</td>
</tr>
<tr>
<td>GRAP 12</td>
<td>Advanced Photo Editing with Photoshop</td>
<td>3.0</td>
</tr>
<tr>
<td>GRAP 14</td>
<td>Digital Color Management</td>
<td>3.0</td>
</tr>
<tr>
<td>GRAP 16</td>
<td>Digital Image Design with Illustrator &amp; Freehand</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 24.0

**Recommended Electives:**

- **ARTB 1**: Understanding the Visual Arts
- **AHS 1**: Understanding the Visual Arts
- **COMP 10**: Operating the Macintosh Computer
- **GRAPH**: Advanced Image Design - 3D Modeling Techniques
- **GRAPH 24**: Work Experience in Computer Graphics
- **PHOT 1**: Laboratory Studies: Black and White Photography
- **PHOT 2**: Laboratory Studies: Color Photography
- **PHOT 4**: Digital Cameras and Composition

### Computer Graphic Design/Photography

**Commercial and Entertainment Arts Certificate L1005**

The Computer Graphics Certificate will enable the student to develop specific computer skills needed for employment subsequent to completion of the required courses. The Computer Graphics Certificate is an option under the existing Photography program. Those anticipating a Bachelor’s Degree should be guided in their selection of lower-division courses by an advisor of the catalog of the institution they expect to enter.
## Requirements for the Certificate

**Consumer Services**

Consumer Science and Design Technologies Certificate L1321

This program provides semi-professional training for those who seek immediate employment with the public sector or business establishments such as finance, retail, utilities and telecommunications. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The possession of a certificate is favorably recognized by government, business, and industry and is frequently a requirement for professional advancement. Additional courses beyond those required will enhance student's knowledge in a specialty area. Consult with a professor of Family and Consumer Sciences for further information.

Certificate requirements state that at least half of the required number of units be taken at Mt. San Antonio College and that in each course taken toward a certificate, a grade of “C” or better must be earned. Students who are in College and that in each course taken toward a certificate, a required number of units be taken at Mt. San Antonio College, in order to be awarded the certificate. Consult with a counselor or advisor to discuss transferability of courses.

### Requirements for the Certificate

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 11</td>
<td>Technical Applications in Microcomputers</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ELEC 12</td>
<td>Computer Simulation and Troubleshooting</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits (DC)</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronic Circuits (AC)</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ELEC 51</td>
<td>Electronic Devices</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ELEC 56</td>
<td>Digital Electronics</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ELEC 61</td>
<td>Electronic Assembly and Fabrication</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ELEC 74</td>
<td>Microprocessor Systems</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

Total Units: **28.0**

### Recommended Electives:

- MATH 51 Elementary Algebra 4.0

**Correctional Sciences**

Public Services Department Certificate T2103

Correctional Sciences is the application of law, social, and natural sciences to the social phenomenon of crime and delinquency. The discipline addresses definitions, causation, prevention, discovery, procedures, treatment and rehabilitation, quantification, and research in both criminal and civil aspects. This program is intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

### Requirements for the Certificate

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 68</td>
<td>Administration of Justice Report Writing</td>
</tr>
<tr>
<td>CORS 10</td>
<td>Introduction to Correctional Sciences</td>
</tr>
<tr>
<td>CORS 15</td>
<td>Control and Supervision of the Offender</td>
</tr>
<tr>
<td>CORS 20</td>
<td>Correctional Law</td>
</tr>
<tr>
<td>CORS 25</td>
<td>Probation and Parole</td>
</tr>
<tr>
<td>CORS 30</td>
<td>Ethnic Relations in Corrections</td>
</tr>
</tbody>
</table>

**PLUS**

Select four (4) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 1</td>
<td>The Administration of Justice System</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ADJU 2</td>
<td>Principles and Procedures of the Justice System</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ADJU 20</td>
<td>Principles of Investigation</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ADJU 38</td>
<td>Narcotics Investigation</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ADJU 59</td>
<td>Gangs in the Community/ Corrections</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>CORS 35</td>
<td>Interviewing and Counseling in Corrections</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CORS 40</td>
<td>Crime and Delinquency</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CORS 45</td>
<td>The Violent Offender</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

Total Units: **30.0**

### Recommended Electives:

- PE-F 50 Physical Skills Preparation for Law Enforcement and Fire Science
- PE-F 51 Agility Testing Preparation for Law Enforcement and Fire Science
- PE-F 52 Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
- SPAN 66 Spanish for Fire and Police Personnel

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## Construction Inspection

**Architecture and Engineering Design Department**

**Certificate L0920**

This program is intended to prepare students for employment following completion of courses. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

### Requirements for the Certificate

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 12</td>
<td>Architectural Materials and Specifications</td>
</tr>
<tr>
<td>ARCH 14</td>
<td>Building and Zoning Codes</td>
</tr>
<tr>
<td>INSP 17</td>
<td>Legal Aspects of Construction</td>
</tr>
<tr>
<td>INSP 70</td>
<td>Elements of Construction</td>
</tr>
<tr>
<td>INSP 71</td>
<td>Construction Estimating</td>
</tr>
<tr>
<td>INSP 87</td>
<td>Fundamentals of Construction Inspection</td>
</tr>
<tr>
<td>MATH 51</td>
<td>Elementary Algebra</td>
</tr>
</tbody>
</table>

Total Units: **22.0**

**Recommended Electives:**

- ARCH 11 Architectural Drawing
- ARCH 15 Architectural Working Drawings - I
- EDT 26 Civil Engineering Technology and CAD
- INSP 67 Reading Construction Drawings

---

## Programs of Study Leading to a Certificate

### Correctional Sciences

- **Level II**
  - Psychology and Education Department Certificate T2103
  - This certificate program in the field of education prepares paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning and development. Students will be able to assist classroom teachers in working with children of all ages and backgrounds, including students with special needs. This certificate provides graduates with skills in math and English, as well as understandings in learning and teaching styles. It may be used as eligibility for position advancement.

### Educational Paraprofessional

- **Level II**
  - Psychology and Education Department Certificate T2188
  - This certificate program in the field of education prepares paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning and development. Students will be able to assist classroom teachers in working with children of all ages and backgrounds, including students with special needs. This certificate provides graduates with skills in math and English, as well as understandings in learning and teaching styles. It may be used as eligibility for position advancement.

---

## Required courses:

- **Certification:**
  - Completion of the Educational Paraprofessional - Level I course work (13 units) as follows:
    - CHILD 1 Child, Family and Community 3.0 CSU,UC
    - EDU 10 Introduction to Education 3.0 CSU,UC
    - ENGL 68 English - Writing 3.0
    - MATH 51 Elementary Algebra 4.0
    - PLUS the following courses:
      - Level II as follows:
        - CHILD 63 Children With Special Needs 3.0 CSU
        - EDU 16 Aspects and Issues in Teaching Service Learning 3.0 CSU,UC
        - ENGL 1A Freshman Composition 3.0 CSU,UC
        - MATH 71 Intermediate Algebra 5.0
        - PSYC 14 Developmental Psychology, or 3.0 CSU,UC
        - CHILD 10 Child Growth and Development 3.0 CSU,UC
    - Total Units: **30.0**

### Recommended Electives:

- CHILD 51 Early Literacy in Child Development
- CHILD 64 Health, Safety and Nutrition of Young Children
- LIT 40 Children's Literature
- PE 3 First Aid and CPR
Programs of Study Leading to a Certificate

Electronic Systems Technology - Level II
Electronics and Computer Technology Department
Certificate L0928
The Level II certification (12-13 units) adds customer relations skills and the installation, calibration, setup, maintenance and troubleshooting of home theater, home automation, and home security systems. Either a course on preparing for the C-7 license or troubleshooting digital TV with LCD, plasma and DLP video displays is included.

Requirements for the Certificate

Required courses:
- ELEC 11 Technical Applications 3.0 CSU in Microcomputers
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- ELEC 51 Electronic Devices 4.0 CSU
- ELEC 54B Industrial Electronic Systems 3.0 CSU
- ELEC 54A Industrial Electronics 4.0 CSU
- ELEC 56 Digital Electronics 4.0 CSU
- ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
- ELEC 74 Microprocessor Systems 4.0 CSU
- TECH 60 Customer Relations for the Technician 1.0

Total Units 26.0 - 29.0

Recommended Electives:
- ELEC 61 Advanced Surface Mount Assembly
- TECH 60 Customer Relations for the Technician

Electronics and Computer - Engineering Technology
Electronics and Computer Technology Department
Certificate T0906
This curriculum starts with basic electronic components and circuitry, culminates with course work in electronic systems, and is characterized by advanced coursework in three major areas. These include microprocessors and interfacing, electronic communications and industrial electronic controls. Students completing the program will have training in all the major areas of electronics and will possess ample skills to make them versatile employees. Nearly all labs have new, state-of-the-art equipment to provide the student with quality hands-on learning experiences.

This program is intended to prepare students for employment in electronic industries or for transfer into electronic and computer engineering technology or industrial technology programs at various institutions in the CSU system. Many of the courses directly articulate to courses offered at the CSUs. The certificate prepares students for the following positions: field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronics technician.

All students completing a certificate program are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

Requirements for the Certificate

Required courses:
- ELEC 11 Technical Applications 3.0 CSU in Microcomputers
- ELEC 12 Computer Simulation and Troubleshooting 2.0
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- ELEC 51 Electronic Devices 4.0 CSU
- ELEC 54B Industrial Electronic Systems 3.0 CSU
- ELEC 54A Industrial Electronics 4.0 CSU
- ELEC 55 Microwave Communications 4.0
- ELEC 56 Digital Electronics 4.0 CSU
- ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
- ELEC 74 Microprocessor Systems 4.0 CSU
- TECH 60 Customer Relations for the Technician 1.0

Total Units 43.0

Electronics Communications
Electronics and Computer Technology Department
Certificate T0904
This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. The Electronics Communications curriculum encompasses advanced coursework in electronics communications. This includes both land-based and wireless forms of communications. The curriculum culminates with microwave communications coursework that includes radar, PCS, GPS, and satellite operations.

Two additional certificate programs are also available: a one-year certificate in Electronics Technology, and a two-year certificate having the same title as the A.S. Degree. All students completing an Electronic A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License, and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

Requirements for the Certificate

Required courses:
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- ELEC 12 Computer Simulation and Troubleshooting 2.0
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- ELEC 51 Electronic Devices 4.0 CSU
- ELEC 54B Industrial Electronic Systems 3.0 CSU
- ELEC 54A Industrial Electronics 4.0 CSU
- ELEC 55 Microwave Communications 4.0
- ELEC 56 Digital Electronics 4.0 CSU
- ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
- TECH 60 Customer Relations for the Technician 1.0

Total Units 32.0

Electronics Technology
Electronics and Computer Technology Department
Certificate L0905
This one-year program is designed for the person requiring background in the basic core courses of electronic technology without an area of specialization. The core courses provide the necessary skills for entry-level employment as an electronic technician and include customer relations training.

Requirements for the Certificate

Required courses:
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- ELEC 51 Electronic Devices 4.0 CSU
- ELEC 56 Digital Electronics 4.0 CSU
- ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
- TECH 60 Customer Relations for the Technician 1.0

Total Units 22.0

Electronics: Industrial Systems
Electronics and Computer Technology Department
Certificate T0908
This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. This certificate encompasses advanced coursework in industrial electronics. This includes electronic devices for industrial controls and motor controls. The curriculum culminates in programmable logic controllers using the Allen-Bradley series of PLCs running Windows ladder logic software.

Two additional certificate programs are also available: a one-year certificate in Electronics Technology and a two-year certificate having the same title as the A.S. Degree. All students completing an Electronic A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License, and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

Requirements for the Certificate

Required courses:
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- ELEC 12 Computer Simulation and Troubleshooting 2.0
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- ELEC 51 Electronic Devices 4.0 CSU
- ELEC 54B Industrial Electronic Systems 3.0 CSU
- ELEC 54A Industrial Electronics 4.0 CSU
- ELEC 55 Microwave Communications 4.0
- ELEC 56 Digital Electronics 4.0 CSU
- ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
- TECH 60 Customer Relations for the Technician 1.0

Total Units 32.0
ELEC 12  Computer Simulation and Troubleshooting 2.0
ELEC 50A  Electronic Circuits (DC) 4.0  CSU
ELEC 50B  Electronic Circuits (AC) 4.0  CSU
ELEC 51  Electronic Devices 4.0  CSU
ELEC 54A  Industrial Electronics 4.0  CSU
ELEC 54B  Industrial Electronic Systems 3.0  CSU
ELEC 56  Digital Electronics 4.0  CSU
ELEC 61  Electronic Assembly and Fabrication 2.0  CSU
TECH 60  Customer Relations for the Technician 1.0

Recommended Electives:
ADJU 1  The Administration of Justice System 3.0
FIRE 4  Fire Protection Organization 4.0
PSYC 1A  Introduction to Psychology 4.0
SOC 1C  Sociology 4.0

The Emergency Medical Services faculty recommend that you complement your studies with selected elective courses chosen from the list above. You should meet with a professor of Emergency Medical Services to help you determine which of those electives would best suit your career plans.

Special Information:
To remain in the program, students must maintain a grade of "C" (80 percent) or better in all courses and receive a grade of "C" (80 percent) or better on all final exams, per state regulations. Before starting in clinical rotations, students must pass a criminal background check.

Upon successful completion of the required courses, students are given a certificate documenting completion of the Emergency Medical Technician - Paramedic (EMT-P) program. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

Application Requirements and Selection Procedures
Application Requirements:
In addition to meeting the Mt. San Antonio College's academic standards for admission, applicants must be in good standing and satisfy the following requirements:

1) Be an EMT-I, currently certified in California.
2) Submit a letter on official stationery from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last 2 years.
3) File a College application and be accepted as a student at Mt. San Antonio College.
4) Submit an application for the Paramedic Program to the Health Science Programs Office (909) 594-5611, Ext. 4750. All applications are dated upon receipt in the Health Science Programs Office. The Paramedic Program begins three (3) times per year, in August, January, and May and runs for 29 weeks.
5) Take the AWE (Assessment of Written English), the Mt. SAC Math Placement Test, and the Degrees of Reading Power reading test at least 10 working days before the start of the pre-course (EMS 1). Placement examinations will be individually assessed to determine eligibility. The placement test is administered by the Assessment Center, located in the Student Services Center. If required, arrange with the Center a day and time to take the examination. The Assessment Center (909) 594-5611, Ext. 4265 is open Monday through Friday.
6) Successful completion of EMS 1 - Fundamentals for Paramedics.
7) Forward two (2) official transcripts of all coursework completed (high school, EMT-I, Fire Science, and college work other than Mt. San Antonio College courses). One transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office.
8) A physical examination, proof of certain immunizations, and a criminal background check are required of all candidates after acceptance to the program and before entrance into the clinical setting. Forms and information will be provided upon acceptance into the program. In addition, drug testing may be required as part of the physical examination and/or requested by the college or one of its agents.

Entrance Procedure:
In determining eligibility, consideration will be given to the following:

1) Completion of all application requirements
2) EMS-related experience
3) Scores on the English assessment and math placement tests

Programs of Study Leading to a Certificate

SECTION 7
LEADING TO A CERTIFICATE
### Programs of Study Leading to a Certificate

#### Engineering Language Skills:
Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

### Engineering Design Technology - Level I
Architecture and Engineering Design Department  
Certificate L0900
The Engineering Design Technology Level I Certificate is designed to prepare students for entry-level employment in the technical and computer-aided drafting design fields. Upon completion of the Level I Certificate, students will be prepared in fundamental working practices related to the technical design fields.

**Requirements for the Certificate**

**Required courses:**
- EDT 11 Technical Engineering Drawing I 3.0 CSU
- EDT 12 Technical Engineering Drawing II 3.0 CSU
- EDT 14 Mechanical Design 3.0 CSU
- MFG 11 Manufacturing Processes I 2.0 CSU
- EDT 18 Engineering CAD Applications or ELEC 50A Electronic Circuits (DC) 4.0 CSU

**Plus** Select one (1) course from:
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- MFG 11 Manufacturing Processes I 2.0 CSU

**Total Units** 19.0 - 21.0

**Special Information:** Students interested in pursuing transfer and a Bachelor’s Degree in Engineering or Engineering Technology are advised to verify with each transfer institution specific requirements for transfer and appropriate courses. Requirements vary depending on specialty and institution and may include areas such as math at the levels of calculus or trigonometry at a minimum. See the Mt. SAC catalog under either Engineering or Surveying for a list of transferable engineering courses.

### Engineering Design Technology - Level II
Architecture and Engineering Design Department  
Certificate T0915
The Engineering Design Technology Level II Certificate is designed to provide focused technical grounding and exposes students to parametric design technology. This certificate enables students to pursue competitive employment in the technical design field, beyond entry level.

**Requirements for the Certificate**

**Required courses:**
- EDT 11 Technical Engineering Drawing I 3.0 CSU  
- EDT 12 Technical Engineering Drawing II 3.0 CSU  
- EDT 14 Mechanical Design 3.0 CSU  
- EDT 16 Mechanical Design - Geometric Dimensioning and Tolerancing  
- EDT 18 Basic CAD and Computer Applications 4.0 CSU  
- MFG 11 Manufacturing Processes I 2.0 CSU  
- ELEC 50A Electronic Circuits (DC) 4.0 CSU

**Plus the following courses:**
- EDT 20 Technical Descriptive Geometry 3.0 CSU  
- EDT 24 Engineering CAD 3-D Solids and Surfaces  
- ELEC 50B Electronic Circuits (AC) 4.0 CSU  
- MFG 11 Manufacturing Processes II 2.0 CSU  
- ELEC 50A Electronic Circuits (DC) 4.0 CSU

**Total Units** 37.0 - 41.0

### Escrow Management
Business Administration Department  
Certificate L0511

**Requirements for the Certificate**

**Required courses:**
- BUSA 11 Fundamentals of Accounting 3.0  
- BUSR 50 Real Estate Principles 3.0 CSU  
- BUSR 51 Legal Aspects of Real Estate 3.0  
- BUSR 76 Escrow Procedures I 3.0  
- BUSR 77 Escrow Procedures II 3.0  
- CISB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units** 19.0

### Fashion Design - Level I
Consumer Science and Design Technologies  
Certificate L1397
The Fashion Design Level I Certificate is designed to introduce the student to the employment opportunities available in both fashion design and costume design. Upon completion of the Fashion Design Level I Certificate, students may qualify for an entry-level design and pattern making positions in Southern California’s diverse apparel industry and the entertainment industry that support the largest number of employees and contributes significantly to the economy of the region.

**Requirements for the Certificate**

**Required courses:**
- FASH 8 Introduction to Fashion 3.0 CSU  
- FASH 10 Clothing Construction I 3.0 CSU  
- FASH 12 Clothing Construction II 3.0 CSU  
- FASH 15 Fashion Strategies 3.0 CSU  
- FASH 20 Illustration for Fashion and Costume Design 3.0
**Fashion Merchandising - Level II**
Consumer Science and Design Technologies
Certificate L1303

The Fashion Merchandising Level II Certificate is designed to build upon the Fashion Merchandising - Level I Certificate to provide students with proven business and management tools that will increase their practical understanding of merchandising and marketing. Students will be exposed to projects and visual display simulations that will enhance their merchandising and management career potential.

Completion of the Fashion Merchandising - Level I course (15 units) as follows:

**Requirements for the Certificate**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UC/CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 12</td>
<td>Clothing Construction II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 15</td>
<td>Illustration for Fashion and Costume Design</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 21</td>
<td>Patternmaking I</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 22</td>
<td>Patternmaking II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Plus the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UC/CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 9</td>
<td>History of Costume and Fashion</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 16</td>
<td>Fashion Strategies</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 10</td>
<td>Retail Store Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 30</td>
<td>Advertising and Promotion</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 66</td>
<td>Visual Merchandising Display</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units:** 27.0

**Fire Technology**
Fire Technology Department
Certificate L2105
The Fire Technology Certificate has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It is also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Certificate**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UC/CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 1</td>
<td>Fire Protection Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 4</td>
<td>Building Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**PLUS**
Select two (2) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UC/CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 9</td>
<td>Fire Hydraulics</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 11</td>
<td>Fire Apparatus and Equipment</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 12</td>
<td>Wildland Fire Control</td>
<td>4.0</td>
</tr>
<tr>
<td>FIRE 86</td>
<td>Basic Fire Academy</td>
<td>12.0</td>
</tr>
<tr>
<td>PE-F 53</td>
<td>Physical Training</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**Total Units:** 23.5 - 34.0

**Hospitality: Catering**
Consumer Science and Design Technologies
Certificate L1395
The Hospitality: Catering Certificate will prepare students for catering and banquet job opportunities in the hospitality industry. The program emphasizes menu planning, food presentation, service and catering management.

**Requirements for the Certificate**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UC/CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 48</td>
<td>Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53</td>
<td>Dining Room Service</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 54</td>
<td>Basic Cooking Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 61</td>
<td>Menu Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 62</td>
<td>Catering</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91</td>
<td>Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
<tr>
<td>NF 20</td>
<td>Principles of Foods With Lab</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units:** 20.5
Hospitality: Hospitality Management - Level II
Consumer Science and Design Technologies Certificate L1325
This certificate prepares the holder to enter the hospitality field as a manager-trainee in a hotel or restaurant.

Requirements for the Certificate
Required courses:
- HRM 51 Introduction to Hospitality 3.0 CSU
- HRM 52 Food Safety and Sanitation 1.5 CSU
- HRM 53 Dining Room Service 3.0 CSU
- HRM 54 Basic Cooking Techniques 3.0 CSU
- HRM 55 Management of Hospitality Personnel and Operations 3.0 CSU
- HRM 56 Management 3.0 CSU
- HRM 64 Hospitality Financial Accounting 1.5 CSU
- HRM 66 Hospitality Law 3.0 CSU
- HRM 70 Introduction to Lodging 3.0 CSU
- HRM 91 Work Experience in Restaurant/Hospitality 1.0 CSU

Total Units 19.0

Hospitality: Restaurant Management - Level II
Consumer Science and Design Technologies Certificate L1319
The Hospitality: Restaurant Management - Level II Certificate prepares the holder to enter the restaurant field as a manager-trainee in a in a food service establishment.

Requirements for the Certificate
Required courses:
- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 15 Architectural Working Drawings - I 3.0 CSU
- ARCH 16 Basic CAD 4.0 CSU,UC
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 72 Bookkeeping - Accounting 3.0 CSU
- BUSM 80 Retail Store Management and Merchandising 2.0 CSU

Total Units 22.0

Infant/Toddler Development
Child Development Certificate T1318
The Infant/Toddler Certificate (30 units) provides the holder with specialized skills for working with children of that age. This certificate meets or exceeds Title 22 requirements and Title 5 Master Teacher - Infant/Toddler Specialization (with 16 units of general education).

Requirements for the Certificate
Required courses:
- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 15 Architectural Working Drawings - I 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 72 Bookkeeping - Accounting 3.0 CSU

Total Units 22.0

Interior Design - Kitchen And Bath Design
Consumer Science and Design Technologies Certificate T1302
This Mt. SAC Kitchen and Bath Design Certificate program provides for immediate opportunity to seek employment in the area of Kitchen and Bath Design. This certificate program is endorsed by the National Kitchen and Bath Association. Students completing all courses for this certificate will earn four (4) NKBA credits toward eligibility for professional certification as a Certified Kitchen Designer or Certified Bath Designer. Please see a professor of Interior Design or contact the NKBA for professional certification eligibility requirements beyond this program.

Requirements for the Certificate
Required courses:
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 72 Bookkeeping - Accounting 3.0 CSU
- BUSM 75 Retail Store Management and Merchandising 2.0 CSU

Total Units 56.0

Recommended Electives:
- ARCH 13 Architectural Illustration 3.0 CSU
- ARCH 23 Architectural Presentation 3.0 CSU
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 72 Bookkeeping - Accounting 3.0 CSU
- BUSM 75 Retail Store Management and Merchandising 2.0 CSU

Interior Design Level I - Merchandising
Consumer Science and Design Technologies Certificate L1322
This program is intended to prepare students for employment as assistants and sales personnel for interior design products. The Interior Design program works within a Regional Interior Design Consortium of nearby community colleges. Many of the required courses may also be offered at the following community colleges: Fullerton, Long Beach City, Orange Coast, and Saddleback, and will meet the requirements of the Mt. SAC program. Some Mt. San Antonio College courses are offered by other departments and are identified by a prefix. These courses have the regional identification course number (RID) in parenthesis following their course title.

Requirements for the Certificate
Required courses:
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 72 Bookkeeping - Accounting 3.0 CSU
- BUSM 75 Retail Store Management and Merchandising 2.0 CSU

Total Units 25.0

Interior Design Level II - Design
Consumer Science and Design Technologies Certificate T1330
This program is available as a certificate for students who have previous A.A., A.S. or Bachelor’s Degree in another discipline. This program is designed to meet the professional requirements for entrance into an interior design career as an assistant interior designer. The Interior Design program works within a Regional Interior Design Consortium of nearby community colleges. Many of the required courses may also be offered at the following community colleges: Fullerton, Long Beach City, Orange Coast, and Saddleback, and will meet the requirements of the Mt. SAC program. Some Mt. San Antonio College courses are offered by other departments and are identified by a prefix. These courses have the regional identification course number (RID) in parenthesis following their course title.

Requirements for the Certificate
Required courses:
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 72 Bookkeeping - Accounting 3.0 CSU
- BUSM 75 Retail Store Management and Merchandising 2.0 CSU

Total Units 25.0
Interior Design Level III - Professional Designation

Certification F1391

This program has been aligned with California State University-Dominguez Hills (CSUDH) to offer students either a Bachelor of Arts (BA) in Interdisciplinary Studies through PACE (Program for Adult College Education) or a Bachelor of Science (BS) in Applied Studies. Students must complete the Mt. San Antonio College (Mt. SAC) general education requirements to transfer into either of the CSUDH programs. While completing the Bachelor's Degree program at CSUDH, students must complete 16 units of credit in Interior Design at Mt. SAC or another college within the Regional Interior Design Program. Upon completion of the Bachelor Degree, the student may request a Professional Designation in Interior Design from the Interior Design program at Mt. SAC. Students already holding a Bachelor Degree may also apply for the Professional Designation in Interior Design after completing the requirements listed below.

**Requirements for the Certificate**

**Certification Level I - Merchandising course work (15 units) as follows:**
- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 16 Basic CAD and Computer Application 4.0 CSU,UC
- BUSS 35 Professional Selling 3.0 CSU
- ID 100 Fundamentals of Interior Design 3.0 CSU
- ID 105 Interior Design Studio I 2.0 CSU
- ID 120 Interior Design Careers 2.0 CSU
- ID 130 Applied Color and Design Theory 4.0 CSU
- ID 150 Interior Materials and Products 4.0 CSU

**Certification Level II course work as follows:**
- ID 150 Interior Design Careers 2.0 CSU
- ID 130 Applied Color and Design Theory 4.0 CSU
- ID 150 Interior Materials and Products 4.0 CSU
- BUSS 35 Professional Selling 3.0 CSU
- ID 105 Interior Design Studio I 2.0 CSU
- ID 120 Interior Design Careers 2.0 CSU
- ID 130 Applied Color and Design Theory 4.0 CSU
- ID 150 Interior Materials and Products 4.0 CSU

**Certification Level III course work as follows:**
- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 16 Basic CAD and Computer Application 4.0 CSU,UC
- BUSS 35 Professional Selling 3.0 CSU
- ID 100 Fundamentals of Interior Design 3.0 CSU
- ID 105 Interior Design Studio I 2.0 CSU
- ID 120 Interior Design Careers 2.0 CSU
- ID 130 Applied Color and Design Theory 4.0 CSU
- ID 150 Interior Materials and Products 4.0 CSU

**Total Units 50.0**

**Interior Landscaping**

Agricultural Sciences Department

Certification L0106

This certificate program is designed to give students basic skills in the design, installation, and maintenance of interior plants that are used in residences, offices, hotels, malls, restaurants, and other locations. All courses are applicable for degree requirements.

**Requirements for the Certificate**

**Certification Level I course work as follows:**
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 15 Interior Landscaping 3.0
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
- AGOR 32 Landscaping and Nursery Management 3.0 CSU
- AGOR 62 Landscape Irrigation - Design and Installation 3.0
- AGOR 64 Landscape Irrigation - Drip and Low Volume 3.0

**Total Units 24.0**

**Certification Level II course work as follows:**
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 15 Interior Landscaping 3.0
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
- AGOR 32 Landscaping and Nursery Management 3.0 CSU
- AGOR 62 Landscape Irrigation - Design and Installation 3.0
- AGOR 64 Landscape Irrigation - Drip and Low Volume 3.0

**Total Units 27.0**

**Certification Level III course work as follows:**
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 15 Interior Landscaping 3.0
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
- AGOR 32 Landscaping and Nursery Management 3.0 CSU
- AGOR 62 Landscape Irrigation - Design and Installation 3.0
- AGOR 64 Landscape Irrigation - Drip and Low Volume 3.0

**Total Units 30.0**

**Certification Level IV course work as follows:**
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 15 Interior Landscaping 3.0
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
- AGOR 32 Landscaping and Nursery Management 3.0 CSU
- AGOR 62 Landscape Irrigation - Design and Installation 3.0
- AGOR 64 Landscape Irrigation - Drip and Low Volume 3.0

**Total Units 31.0 - 34.0**
Programs of Study Leading to a Certificate

Landscape Irrigation
Agricultural Sciences Department
Certificate L0110
This certificate program is designed to give students basic skills in irrigation design, repair, installation, water management, and troubleshooting. A student could seek employment with a landscape contractor, schools, parks, and cities. All courses are applicable for degree requirements.

Requirements for the Certificate
Required courses:
AGOR 1 Horticultural Science 3.0 CSU
AGOR 13 Landscape Design 3.0 CSU
AGOR 39 Turf Grass Production and Management 3.0 CSU
AGOR 50 Soil Science and Management 3.0 CSU,UC
AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
AGOR 64 Landscape Irrigation - Design and Installation 3.0 CSU
AGOR 65 Landscape Irrigation Systems Management 3.0 CSU
AGOR 71 Landscape Construction Fundamentals 3.0 CSU

Total Units 27.0

Legal Office Specialist
Office Technology Department
Certificate T0519
This program is intended to prepare students for employment as entry-level legal office assistants, legal secretaries, administrative assistants, legal office managers, or other office support staff where legal knowledge is required. Training in a variety of computer and clerical skills, and law office procedures is emphasized. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Certificate
Required courses:
BUSM 20 Principles of Business 3.0 CSU,UC
BUSM 21 Business Organization 3.0 CSU
CSB 35 Professional Selling 3.0 CSU
CSB 36 Principles of Marketing 3.0 CSU

Total Units 28.0

Marketing Management
Business Administration Department
Certificate L0510
Requirements for the Certificate
Required courses:
BUSM 20 Principles of Business 3.0 CSU,UC
BUSM 61 Business Organization 3.0 CSU
BUSM 35 Professional Selling 3.0 CSU
BUSM 36 Principles of Marketing 3.0 CSU
BUSM 50 Retail Store Management 3.0 CSU
BUSM 70 International Marketing Concepts 3.0 CSU
BUSM 79 Work Experience in Marketing Management 1.0 CSU
CSB 85 Special Issues in Marketing 2.0 CSU
CSB 15 Microcomputer Applications 4.0 CSU,UC

Total Units 25.0
**Medical Office Specialist**

**Office Technology Department Certificate TS023**

This program is intended to prepare students for employment as entry-level medical office assistants, medical receptionists, administrative assistants - medical, medical office managers, or other office support staff in the medical field. Training in a variety of computer and clerical skills is emphasized. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Certificate Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>COMP 1</td>
<td>Computer Keyboarding</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>COMP 2</td>
<td>Intermediate Computer</td>
<td>4.0</td>
</tr>
<tr>
<td>COMP 12</td>
<td>Office Computer Applications</td>
<td>4.0 CSU, UC or</td>
</tr>
<tr>
<td>CSB 15</td>
<td>Microcomputer Applications</td>
<td>4.0 CSU, UC</td>
</tr>
<tr>
<td>COMP 18</td>
<td>Data Entry</td>
<td>3.0</td>
</tr>
<tr>
<td>COMP 20</td>
<td>Word for the Business Professional</td>
<td>4.0</td>
</tr>
<tr>
<td>COMP 28</td>
<td>Office Management Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COMP 68</td>
<td>Transcription Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>MEDI 90</td>
<td>Medical Terminology</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>39.0</td>
</tr>
</tbody>
</table>

Note: The core courses for the Medical Specialist certificate are equivalent to the courses required for the Administrative Assistant Levels I and II certificates.

**Mental Health Technology - Psychiatric Technician**

**Psychiatric Technician Department Certificate TS1279**

Completion of coursework leads to an Associate of Science Degree. The Psychiatric Technology Program will prepare students to take the California State Licensure Examination for Psychiatric Technicians.

**Requirements for the Certificate Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENT 40</td>
<td>Introduction to Interviewing and Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 40</td>
<td>Introduction to Interviewing and Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>MENT 56</td>
<td>Medical-Surgical Nursing for Psychiatric Technicians</td>
<td>9.0</td>
</tr>
<tr>
<td>MENT 56L</td>
<td>Clinical Experience</td>
<td>4.0</td>
</tr>
<tr>
<td>MENT 58D</td>
<td>Advanced Medical-Surgical Nursing and Pharmacology for PT</td>
<td>4.0</td>
</tr>
<tr>
<td>MENT 58L</td>
<td>Advanced Medical-Surgical Nursing for Psychiatric Technicians</td>
<td>1.5</td>
</tr>
<tr>
<td>MENT 70</td>
<td>Introduction to Psychiatric Technology</td>
<td>1.5</td>
</tr>
<tr>
<td>MENT 70L</td>
<td>Introduction to Psychiatric Technology Clinical Technicians</td>
<td>2.0</td>
</tr>
<tr>
<td>MENT 72</td>
<td>Nursing Care of the Developmentally Disabled Person</td>
<td>7.0</td>
</tr>
<tr>
<td>MENT 72L</td>
<td>Developmentally Disabled Person - Clinical</td>
<td>5.0</td>
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<tr>
<td>MENT 73L</td>
<td>Psychiatric Nursing</td>
<td>5.0</td>
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<tr>
<td>MENT 73T</td>
<td>Psychiatric Nursing</td>
<td>6.0</td>
</tr>
<tr>
<td>MENT 82</td>
<td>Work Experience in Mental Health Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0 CSU UC</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>53.0</td>
</tr>
</tbody>
</table>

**Special Information:**
- To remain in the program, students must maintain a "C" or better grade in all courses.
- The student will qualify to take the California State Board Examination upon completion of all the above courses.

**Entrance Requirements:**

- In addition to meeting Mt. San Antonio College’s academic standards for admission, applicants must be in good standing and satisfy the following requirements:
  - a) Be a high school graduate or equivalent. (All students who have taken coursework outside of the United States must have their transcript evaluated. Foreign transcripts will not be accepted without the evaluation.)
  - b) Be 18 years of age.
  - c) File a college application and be accepted as a student at Mt. San Antonio College.
  - d) Submit an application for the Mental Health/Psychiatric Technician Program to the Technology and Health Division Office (909) 594-5611, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.
  - e) Take the required English Placement Test (AWU). Eligibility for ENGL 68 is advised.
  - f) Forward two original transcripts of all coursework completed (high school, nursing school, and other than Mt. San Antonio College courses). One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.
  - g) For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.

**NOTE:**

- **Concerning Entrance Requirements 'e' and 'f':** If the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.
- Indicate in the mailing address the program for which your transcript is being sent to the Technology and Health Division Office.

**EXAMPLE:** Mt. San Antonio College Technology and Health Division Psychiatric Technician Program 1100 North Grand Avenue Walnut, CA 91789-1399

- h) A physical examination, including specific immunizations, and consent/disclaimer for Hepatitis A/B vaccine is required of all candidates prior to beginning classes. Students must provide proof that he/she does not have Tuberculosis. These requirements are in accordance with the healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination.
- Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.
- i) Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.
- j) All students will be required to pass a background check prior to entering the clinical education phase.

**Selection Procedure:**

In determining eligibility of an applicant, consideration will be given to satisfactory scores on the English Placement Test.

The College will make every effort to notify the applicant of acceptance by mail no less than two months prior to the beginning of a program. All Applicants are required to meet the Essential Functions for Success in the Mental Health Technology - Psychiatric Technician Program.

**Physical Demands:**

- Perform prolonged, extensive, or considerable standing/walking, lifting, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift and carry at least 125 pounds)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

**Sensory Demands:**

- **Color vision:** ability to distinguish and identify colors (may be corrected with adaptive devices)
- **Distance vision:** ability to see clearly 20 feet or more without corrective lenses
- **Depth perception:** ability to judge distance and space relationships
- **Near vision:** ability to see clearly 20 inches or less
- **Hearing:** able to recognize a full range of tones

**Working Environment:**

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
Programs of Study Leading to a Certificate

- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposure to products containing latex

English Language Skills:
Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

Microcomputer Productivity Software
Computer Information Systems Department
Certificate L0702
This certificate program is intended to prepare students to use the most popular microcomputer productivity software packages and operating systems: DOS, Microsoft Windows, Microsoft Word, Corel WordPerfect, Microsoft Excel or Lotus 1-2-3, and Microsoft Access.

Requirements for the Certificate

Required courses:
- CSB 13 Microsoft Windows 2.0 CSU
- CSN 21 Windows Operating System 4.0 CSU
- CSB 15 Microcomputer Applications 4.0 CSU,UC
- CSB 21 Microsoft Excel 4.0
- CS 11 Database Management - Microsoft Access 4.0 CSU
- CSW 11 Introduction to Internet Technologies 4.0 CSU
- COMP 50 Desktop Presentations Using PowerPoint 4.0 CSU

Total Units 22.0 - 24.0

Nursery Management
Agricultural Sciences Department
Certificate L0107
This certificate program is designed to give students basic skills in production and marketing of plants and dry goods in the wholesale and retail nursery industry. All courses are applicable for degree requirements.

Requirements for the Certificate

Required courses:
- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 2 Plant Propagation/Greenhouse Management 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU,UC
- AGOR 32 Landscaping and Nursery Management 3.0 CSU
- AGOR 39 Turf Grass Production and Management 3.0 CSU
- AGOR 62 Landscape Irrigation - Design and Installation 3.0 CSU
- AGOR 64 Landscape Irrigation - Drip and Low Volume 3.0

Total Units 27.0

Park Management
Agricultural Sciences Department
Certificate T0186
This certificate program is designed to give students skills required for entry level positions in park management. Emphasis is placed on positions that are at the city and county level. All courses are applicable for degree requirements.

Requirements for the Certificate

Required courses:
- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 4 Park Management 3.0
- AGOR 5 Park Facilities 3.0
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU,UC
- AGOR 39 Turf Grass Production and Management 3.0 CSU
- AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
- AGOR 62 Landscape Irrigation - Design and Installation 3.0 CSU
- AGOR 63 Systems Management 3.0
- AGOR 75 Urban Arboriculture 3.0

Total Units 30.0

Pet Science
Agricultural Sciences Department
Certificate T0104
This certificate program is designed to give students basic skills in production and marketing of pets at the wholesale and retail level. All courses are applicable for degree requirements.

Requirements for the Certificate

Required courses:
- AGAB 20 Microcomputer Applications 3.0 CSU,UC in Agriculture
- AGAN 1 Animal Science 3.0 CSU,UC
- AGAN 2 Animal Nutrition 3.0 CSU,UC
- AGAN 51 Animal Handling and Restraint 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLI 96 Animal Sanitation and Disease Control 3.0 CSU
- AGPE 70 Pet Shop Management 3.0
- AGPE 71 Canine Management 3.0
- AGPE 72 Feline Management 3.0
- AGPE 73 Tropical and Coldwater Fish Management 2.0
- AGPE 74 Reptile Management 2.0
- AGPE 76 Aviculture - Cage and Aviary Birds 3.0
- BUSM 66 Small Business Management 3.0 CSU

Total Units 27.0

Photography
Commercial and Entertainment Arts
Certificate L1002
This certificate program is designed to prepare students to develop specific skills needed for employment in photography, art, cinema/animation, communications, industrial arts, graphics, and journalism.

Requirements for the Certificate

Required courses:
- GRAP 10 Photo Editing with Photoshop 3.0
- PHOT 10 Basic Digital and Film Photography 3.0 CSU,UC
- PHOT 11 Professional Photography 4.0
- PHOT 12 Photographic Alternatives 3.0 CSU,UC
- PHOT 21 Exploring Color Photography 3.0
- PHOT 16 Fashion Photography or Portraiture and Wedding Photography 3.0
- PHOT 17 Photocommunication 3.0
- PHOT 20 Color Photography 3.0
- PHOT 28 Photography Portfolio Development 2.0
- PHOT 30 Commercial and Illustrative Photography 3.0

Total Units 27.0

Recommended Electives:
- AHIS 1 Understanding the Visual Arts 3.5 CSU
- ARTB 1 Understanding the Visual Arts 3.5 CSU
- GRAP 12 Advanced Photo Editing with Photoshop 3.0
- PHOT 1 Laboratory Studies: Black and White Photography 3.0
- PHOT 2 Laboratory Studies: Color Photography 3.0
- PHOT 15 History of Photography 3.0

Programming In C++
Computer Information Systems Department
Certificate L0794
This certificate program is intended to prepare students to use the C++ programming language in a business environment.

Requirements for the Certificate

Required courses:
- CISP 11 Computer Information Systems Management 3.5 CSU,UC
- CISP 11 Database Management - Microcomputers 4.0 CSU
- CISM 11 Systems Analysis and Design 3.5 CSU,UC
- CISP 21 Client/Server Architecture or Programming in Java 4.0 CSU
- CISP 21 Windows Operating System 4.0 CSU
- CSP 31 Programming in C++ 4.0 CSU,UC
- CSP 34 Advanced C++ Programming 4.0 CSU,UC

Total Units 27.0

Programming In Visual Basic
Computer Information Systems Department
Certificate L0789
This certificate is intended to prepare students to work in Visual Basic which is used to develop graphical user interfaces and client/server applications.

Requirements for the Certificate

Required courses:
- CISP 11 Computer Information Systems Management 3.5 CSU,UC
- CISP 11 Database Management - Microcomputers 4.0 CSU

Total Units 27.0
Public Works/Landscape Management

Agricultural Sciences

Certificate B0120

This program is a partnership between Mt. San Antonio College and Citrus College, with course requirements that must be taken at each college. Courses in Public Works are offered through Citrus, while horticulture/landscape courses are offered at Mt. SAC. Upon completion of the requirements, students may apply for and receive a Certificate of Achievement from either of the two colleges.

Requirements for the Certificate

Required courses:
- PUB 150 Public Works I (Citrus College) 3.0
- PUB 158 Municipal and Urban Tree Care (Citrus College) 3.0
- AGOR 1 Horticultural Science 3.0
- AGOR 39 Turf Grass Production and Management 3.0

Total Units 12.00

Radio Broadcasting: Behind the Scenes

Commercial and Entertainment Arts Certificate T0605

This Behind-the-Scenes Radio Broadcasting Certificate is designed for students who are interested in the non-performance side of the industry. Students will receive instruction in the various functions of a radio station as they exist independently and in conjunction with the on-air product.

Requirements for the Certificate

Required courses:
- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 09 Broadcast Sales and Promotion 3.0
- R-TV 10 Radio Management and Programming 3.0
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0

Radio Broadcasting: On the Air

Commercial and Entertainment Arts Certificate T0605

This On-the-Air Radio Broadcasting Certificate is designed for students who are interested in working in the performance side of the industry. Students receive instruction in developing skills needed to work as disc jockeys, newscasters, voice-over artists and in other performance areas of the industry.

Requirements for the Certificate

Required courses:
- R-TV 02 On-Air Personality Development 3.0 CSU
- R-TV 03 Introduction to Broadcasting 3.0 CSU
- R-TV 04 Beginning Commercial Voice-Overs 3.0
- R-TV 08 Broadcast Traffic Reporting 1.5
- R-TV 09 Commercial Copywriting 3.0
- R-TV 10 Legal Issues in Entertainment Law 3.0
- R-TV 12 Radio Drama 3.0
- R-TV 13 History of Radio DJ’s 3.0
- R-TV 14 Radio Show Producer Techniques 3.0

Total Units 33.0 - 34.0

Real Estate

Business Administration Department

Certificate L0512

Prior to applying to take the California Real Estate Salesperson License Exam the applicant must have completed Real Estate Principles (BUSR 50), Real Estate Practice (BUSR 52), and a third elective course in real estate. The certificate in Real Estate includes these three courses and three additional courses for a total of six of the eight classes needed to satisfy the educational requirements to take the California Real Estate Broker Exam.

Requirements for the Certificate

Required courses:
- BUSR 50 Real Estate Principles 3.0 CSU
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 52 Real Estate Practice 3.0
- BUSR 54 Real Estate Finance 3.0
- BUSR 56 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 57 Real Estate Property Management 3.0
- BUSR 76 Escrow Procedures 1 3.0

PLUS

Select three (3) courses from:
- BUSA 11 Fundamentals of Accounting 3.0
- BUSR 50 Real Estate Principles 3.0 CSU
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 52 Real Estate Practice 3.0
- BUSR 54 Real Estate Finance 3.0
- BUSR 56 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 57 Real Estate Property Management 3.0
- BUSR 76 Escrow Procedures 1 3.0

Total Units 22.5 - 23.5

Real Estate Appraisal

Business Administration Department

Certificate L0513

The certificate in Real Estate Appraisal meets all of the educational requirements for Appraiser Trainee, Licensed Appraiser, and depending on the choice of electives may meet the educational requirements for Certified Residential Appraiser.

Requirements for the Certificate

Required courses:
- BUSR 50 Real Estate Principles 3.0
- BUSR 52 Real Estate Practice 3.0
- BUSR 54 Real Estate Finance 3.0
- BUSR 56 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 57 Real Estate Property Management 3.0
- BUSR 76 Escrow Procedures 1 3.0

PLUS

Select three (3) courses from:
- BUSA 11 Fundamentals of Accounting 3.0
- BUSR 50 Real Estate Principles 3.0 CSU
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 52 Real Estate Practice 3.0
- BUSR 54 Real Estate Finance 3.0
- BUSR 56 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 57 Real Estate Property Management 3.0
- BUSR 76 Escrow Procedures 1 3.0

Total Units 18.5

Programs of Study Leading to a Certificate
Programs of Study Leading to a Certificate

School Age Child - Specialization

Child Development Certificate T1314

The School Age Child Specialization Certificate (31-33 units) provides the holder with specialized skills for working with children of that age. This certificate meets or exceeds Title V Master Teacher - School Age Child Permit Level (with 16 units of general education).

Requirements for the Certificate

Required courses:
- CHLD 1 Child, Family and Community 3.0 CU
- CHLD 5 Principles/Practices in Child Development Programs 3.0 CU
- CHLD 10 Child Growth and Development 3.0 CU

PLUS
- CHLD 50 Multicultural Education: Anti-Bias Perspective (with 16 units of general education)
- CHLD 51 Early Literacy in Child Development 3.0
- CHLD 62 Music and Motor Development for Young Children 3.0 CU
- CHLD 64 Health, Safety and Nutrition of Young Children 3.0 CU
- CHLD 74 Program Planning for the School Age Child 3.0

Total Units 40.0 - 43.0

Endless number of settings in which this communication takes place. Interpreters are employed by school districts, cruise ships, companies, corporations, government agencies, hospitals, colleges and universities, and a vast number of other organizations and private businesses.

Program Preparation: Preparation for the program includes fluency in American Sign Language demonstrated by the completion of SIGN 104, American Sign Language A, (or the equivalent skill) and English fluency demonstrated by the completion of ENGL 1A.

National Certification: There are many specialties within the field of Sign Language Interpreting, but the focus of this program is on preparing the interpreter generalist. Although requiring some type of certification is becoming more common in California, there are still many job opportunities for the noncertified interpreter.

Completing the certificate in Sign Language/Interpreting does not make one a "Certified Interpreter"; however, graduates of this program are encouraged to apply for National Certification (NIC) through the Registry of Interpreters for the Deaf (RID) at www.rid.org.

Requirements for the Certificate

Required courses:
- SIGN 104 American Sign Language A 3.0 CU
- SIGN 110 American Sign Language B 3.0
- SIGN 200 American Sign Language C 3.0 CU
- SIGN 210 American Sign Language Structure 3.0 CU
- SIGN 220 Translation: American Sign Language/English 3.0 CU
- SIGN 233 Principles of Interpreting 3.0 CU
- SIGN 225 Ethical Decision Making for Interpreters 2.0
- SIGN 227 Cognitive Processing for Interpreters 4.0
- SIGN 230 Advanced Interpreting 4.0
- SIGN 239 Practicum 1.0

PLUS
- Select three (3) courses from:
  - SIGN 99 Special Projects in Sign Language/Interpreting 2.0
  - SIGN 238 Oral Transliteration 3.0
  - SIGN 240 Vocabulary Building for Interpreters 2.0 CU
  - SIGN 250 Interpreting with Classifiers 1.5
  - SIGN 260 Video Interpretation 1.5
  - SL 2 Linked Service Learning 1.0 CU

Total Units 40.0 - 43.0

Sports Turf Management

Agricultural Sciences Department
Certificate L0112

This certificate program is designed to provide skills required for students interested in employment at golf courses, race tracks, athletic fields and stadiums, and other high use turf areas. All courses are applicable for degree requirements.

Requirements for the Certificate

Required courses:
- AGOR 1 Horticultural Science 3.0 CU
- AGOR 24 Integrated Pest Management 3.0 CU
- AGOR 30 Ornamental Plants 3.0 CU
- AGOR 39 Turf Grass Production and Management 3.0 CU
- AGOR 40 Sports Turf Management 3.0
- AGOR 50 Soil Science and Management 3.0 CU
- AGOR 51 Tractor and Landscape Equipment Operations 3.0
- AGOR 62 Landscape Irrigation 3.0
- AGOR 63 Landscape Irrigation Systems Management 3.0

Total Units 27.0

Television Production

Commercial and Entertainment Arts Certificate L0602

Students will gain experience in film-style production, remote and studio production. This course of study qualifies the student for a certificate in television production, and is designed to prepare a student for an entry-level job in the industry in a variety of areas. This includes not only skills used in production, but also preproduction, and editing.

Requirements for the Certificate

Required courses:
- R-TV 01 Introduction to Broadcasting 3.0 CU
- R-TV 14 Media Aesthetics 3.0
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 19A Beginning Television Production 3.0 CU
- R-TV 19B Advanced Television Production 3.0
- R-TV 100 Work Experience in Film and TV 2.0

PLUS
- Select three (3) units from:
  - R-TV 18 Writing for Television/Film 3.0 CU
  - R-TV 20 Television News Production 3.0

Total Units 24.0

Tree Care and Maintenance

Agricultural Sciences Department
Certificate L0111

This certificate program is designed to give students basic skills in the repair and maintenance of trees. All courses are applicable for degree requirements.

Requirements for the Certificate

Required courses:
- AGOR 1 Horticultural Science 3.0 CU
- AGOR 24 Integrated Pest Management 3.0 CU
- AGOR 30 Ornamental Plants 3.0 CU
- AGOR 32 Landscaping and Nursery Management 3.0 CU

Total Units 26.0

Recommended Electives:
- ANIM 115 Storyboarding
- R-TV 26 Current Issues in Entertainment Law
- THTR 17 Acting for Television


**Web Page Design**

**Arts Department**

**Certificate L0618**

This certificate program is designed to provide students with a combination of aesthetic design principles and the technical expertise necessary for employment as a Web page designer.

**Requirements for the Certificate**

**Required courses:**

- ANIM 175 Web Animation With Flash 3.0
- ARTC 60 Graphic Design 3.0 CSU,UC
- ARTC 70 Computer Graphics: Introduction 3.0 CSU

**Note:** Any higher level welding courses may be substituted for WELD 40.

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**Welder - Automotive Welding, Cutting & Modification**

**Air Conditioning, Water & Welding Technologies**

**Certificate T0931**

Prepares students for entry-level employment as a licensed welder with additional skills development and theory in automotive welding. Coursework prepares students for industry licensing with emphasis on competencies required for certification in structural steel welding and specialty skills in automotive welding.

**Requirements for the Certificate**

**Required courses:**

- WELD 40 Introduction to Welding 2.0 CSU
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 91 Automotive Welding, Cutting and Modification 3.0

**Total Units 30.0**

Note: Any higher level welding courses may be substituted for WELD 40.

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**Welder - Gas Tungsten Arc Welding**

**Air Conditioning, Water & Welding Technologies**

**Certificate T0932**

Prepares students for entry-level employment as a licensed welder with additional skills development and theory in semi-automatic ARC welding. Coursework prepares students for industry licensing with emphasis on competencies required for certification in structural steel welding and specialty skills in semi-automatic ARC welding.

**Requirements for the Certificate**

**Required courses:**

- WELD 40 Introduction to Welding 2.0 CSU
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0 CSU
- WELD 60 Print Reading 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90A Gas Tungsten Arc Welding 3.0

**Total Units 30.0**

Note: Any higher level welding courses may be substituted for WELD 40.

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**Water Technology**

**Air Conditioning, Water & Welding Technologies**

**Certificate L0930**

This program is designed to prepare students for entry-level employment in the water treatment industry, or (2) qualify for a specialized position within the water treatment industry. Material covered in the courses will be helpful to students who wish to prepare for Grade I, Grade II, or Grade III Water Treatment Operator certification examinations given by the State of California, Department of Health, and the AWWA Distribution Operation Certification. It also covers the responsibilities of water supply, State Health Department Title 17 Cross-Connections, and Title 22 Water Quality Standards.

**Requirements for the Certificate**

**Required courses:**

- WATR 60 Introduction to Water Systems 3.0
- WATR 61 Water Treatment 3.0
- WATR 62 Water Distribution 3.0
- WATR 63 Cross Connection Control 3.0 - Certified Tester
- WATR 64 Cross Connection Control 3.0 - Certified Specialist
- WATR 65 Water Hydraulics and Instrumentation 3.0

**Total Units 18.0**

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**Welder - Licensed**

**Air Conditioning, Water & Welding Technologies**

**Certificate L0930**

This program is designed to prepare students for entry-level employment in the broad field of welding, including manufacturing construction, fabrication and repair. Through theoretical and hands-on skills coursework students prepare for industry licensing with an understanding of current guidelines and standards. Particular emphasis is placed on those competencies required for certification in structural steel welding. Course sequences can be modified to reflect industry experience or other individual needs.

**Requirements for the Certificate**

**Required courses:**

- WELD 40 Introduction to Welding 2.0 CSU
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0 CSU
- WELD 60 Print Reading 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90A Gas Tungsten Arc Welding 3.0

**Total Units 27.0**

Note: Any higher level welding courses may be substituted for WELD 40.

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**Welder - Gas Tungsten Arc Welding**

**Air Conditioning, Water & Welding Technologies**

**Certificate T0932**

Prepares students for entry-level employment as a licensed welder with additional skills development and theory in semi-automatic ARC welding. Coursework prepares students for industry licensing with emphasis on competencies required for certification in aluminum, CRES, mild steel and selected exotic metals with specialty skills in gas tungsten ARC welding.

**Requirements for the Certificate**

**Required courses:**

- WELD 40 Introduction to Welding 2.0 CSU
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0 CSU
- WELD 60 Print Reading 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90A Gas Tungsten Arc Welding 3.0

**Total Units 30.0**

Note: Any higher level welding courses may be substituted for WELD 40.

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**Welder - Gas Tungsten Arc Welding**

**Air Conditioning, Water & Welding Technologies**

**Certificate T0932**

Prepares students for entry-level employment as a licensed welder with additional skills development and theory in semi-automatic ARC welding. Coursework prepares students for industry licensing with emphasis on competencies required for certification in aluminum, CRES, mild steel and selected exotic metals with specialty skills in gas tungsten ARC welding.

**Requirements for the Certificate**

**Required courses:**

- WELD 40 Introduction to Welding 2.0 CSU
- WELD 50 Oxyacetylene Welding 2.0
- WELD 51 Basic Electric Arc Welding 2.0
- WELD 53A Welding Metallurgy 3.0 CSU
- WELD 60 Print Reading 3.0
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90A Gas Tungsten Arc Welding 3.0

**Total Units 30.0**

Note: Any higher level welding courses may be substituted for WELD 40.

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**Programs of Study Leading to a Certificate**

**LEADING TO A CERTIFICATE**

**Section 7 53**
Programs of Study Leading to a Certificate

**SKILLS CERTIFICATES**

**Accounting - Bookkeeping**

Accounting and Management Department Certificate E0504

The Accounting - Bookkeeping certificate provides the student with the basic skills and knowledge for entry-level positions within the clerical/accounting field. Common duties performed in this field are posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting, and account analysis.

Requirements for the Certificate

- BUSA 7 Principles of Accounting 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSA 25 Business Communications 3.0 CSU

**Accounting - Payroll**

Accounting and Management Department Certificate E0505

The Accounting - Payroll Certificate provides accounting skills with specialized training in payroll, preparing the student for entry-level positions within the payroll segment of accounting. Common duties performed include payroll tax reporting, maintenance of payroll accounting systems, and posting payroll transactions to journals/ledgers.

Requirements for the Certificate

- BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSA 25 Business Communications 3.0 CSU

**Administrative Assistant - Level I**

Office Technology Department Certificate E0516

The Level I Certificate prepares students for entry-level clerical positions where keyboarding is the primary function.

Requirements for the Certificate

- BUSA 7 Principles of Accounting 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSA 25 Business Communications 3.0 CSU

**Special Information:**

Required courses:

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 70 Payroll and Tax Accounting 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0
- BUSA 70 Payroll and Tax Accounting 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 9.0 - 10.0

**Art: Aesthetics for Technology**

Commercial and Entertainment Arts Certificate E0103

This certificate program is designed for the student thinking about joining the professional workforce or seeking current job advancement. It provides design skills necessary in art and technology-related industries. A variety of career opportunities are available in Art, Advertising, Graphic Design, Animation, Journalism, and Multimedia. Working professionals or students who hold current certificate offered by the Office Technology Department, Photographers, Architecture, and Design Department, the Family and Consumer Sciences Department, and wish to augment their design skills, would find this certificate beneficial.

Requirements for the Certificate

- BUSA 81 Principles of Accounting 5.0 CSU,UC
- BUSA 72 Business English 3.0
- BUSA 25 Business Communications 3.0 CSU

**Artistic Trainer Aide I**

Physical Education Department Certificate E0802

The Athletic Trainer Aide I Certificate provides minimal experience necessary to assist High School Athletic Trainers and Athletic Health Care Providers in the community. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 14.0 - 15.0

**Busines: Human Resource Management - Level I**

Accounting and Management Department Certificate E0531

This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. This certificate may aid the student's search for an entry-level job in the business world.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 14.0

**Business: International - Level I**

Accounting and Management Department Certificate E0525

This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. This program also prepares the student as a business management generalist for companies conducting international trade. This program will afford career opportunities for entry-level employment in international sales and marketing.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 12.0

**Emergency Response**

Total Units 12.0

**Business: Management - Level I**

Accounting and Management Department Certificate E0525

The Business Management - Level I Certificate is designed to introduce the student to the role of management in business. Management is the efficient use of human and capital resources to accomplish organizational objectives. Students will be exposed to the terms, trends, organizational structure, and opportunities inherent in business management. Upon completion of the Business Management - Level I Certificate students may qualify for an entry-level management position in California's diverse economy.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 11.0

**Special Information:**

Required courses:

- BUSA 20 Principles of Business 3.0 CSU,UC
- BUSA 36 Principles of Marketing 3.0 CSU
- BUSA 36 Principles of Business 3.0 CSU
- BUSA 36 Principles of Marketing 3.0 CSU
- BUSA 36 Principles of Business 3.0 CSU
- BUSA 36 Principles of Marketing 3.0 CSU

Total Units 9.0

**Business: Management - Level II**

Accounting and Management Department Certificate E0525

The Business Management - Level II Certificate is designed to provide the student with the skills necessary to manage a business entity. This program will afford career opportunities for entry-level employment in business management.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 10.0

**Special Information:**

Required courses:

- BUSA 20 Principles of Business 3.0 CSU,UC
- BUSA 36 Principles of Marketing 3.0 CSU
- BUSA 36 Principles of Business 3.0 CSU
- BUSA 36 Principles of Marketing 3.0 CSU

Total Units 9.0

**Office Technology Department**

**Athletic Trainer Aide I**

Physical Education Department Certificate E0802

The Athletic Trainer Aide I Certificate provides minimal experience necessary to assist High School Athletic Trainers and Athletic Health Care Providers in the community. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 14.0 - 15.0

**Business: Human Resource Management - Level I**

Accounting and Management Department Certificate E0531

This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. This certificate may aid the student's search for an entry-level job in the business world.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 14.0

**Business: International - Level I**

Accounting and Management Department Certificate E0525

This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. This program also prepares the student as a business management generalist for companies conducting international trade. This program will afford career opportunities for entry-level employment in international sales and marketing.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 12.0

**Special Information:**

Required courses:

- BUSA 20 Principles of Business 3.0 CSU,UC
- BUSA 36 Principles of Marketing 3.0 CSU
- BUSA 36 Principles of Business 3.0 CSU
- BUSA 36 Principles of Marketing 3.0 CSU

Total Units 9.0

**Business: Management - Level I**

Accounting and Management Department Certificate E0525

The Business Management - Level I Certificate is designed to introduce the student to the role of management in business. Management is the efficient use of human and capital resources to accomplish organizational objectives. Students will be exposed to the terms, trends, organizational structure, and opportunities inherent in business management. Upon completion of the Business Management - Level I Certificate students may qualify for an entry-level management position in California's diverse economy.

Requirements for the Certificate

- BUSA 81 Work Experience in Accounting 1.0
- BUSA 80 Business English 3.0
- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

Total Units 10.0

**Special Information:**

Required courses:

- BUSA 20 Principles of Business 3.0 CSU,UC
- BUSA 36 Principles of Marketing 3.0 CSU
- BUSA 36 Principles of Business 3.0 CSU
- BUSA 36 Principles of Marketing 3.0 CSU

Total Units 9.0
Certifcate E0529
Students receiving fnancial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Business: Retail Management - Level I
Accounting and Management Department
Certifcate E0500
Introductory statement: This introductory certifcate exposes students to the business world and the role of retail distribution. Students become familiar with careers in retail management, as well as the latest trends in this fast changing feld. This certifcate may aid the student’s search for an entry-level job in retail management.

Requirements for the Certifcate
Required courses:
- BUSS 25 Business Communications 3.0 CSU
- CISB 15 Microcomputer Applications 4.0 CSU,UC
- FASH 62 Retail Store Management and Merchandising 3.0 CSU
or
- BUSS 50 Retail Store Management and Merchandising Total Units 10.0

Special Information:
Students receiving fnancial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.

Certifcate E1326
The Children’s Program Certifcate: General – Level I is designed for the student who desires general knowledge about child development and who has an interest or awareness of teaching young children. This certifcate meets Title 22 education requirements for fully qualifed teachers.

Requirements for the Certifcate
Required courses:
- CHLD 1 Child, Family and Community 3.0 CSU,UC
- CHLD 5 Principles/Practices in Child Development Programs 3.0 CSU
- CHLD 6 Survey of Child Development Curriculum 3.0 CSU
- CHLD 10 Child Growth and Development or
- CHLD 10H Child Growth and Development - Honors Total Units 12.0

Certifcate E0715
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program prepares the student to work and manage data using a PC-based Database Management System. The program covers the major topics of the Microsoft MOUS certifcation exam for Access.

Requirements for the Certifcate
Required courses:
- CISP 11 Database Management – Microsoft Access 4.0 CSU
- CISP 14 Advanced Database Management – Microsoft Access 4.0
- CISP 21 Database Management – Microsoft SQL Server 4.0
- CISP 40 Database Design 3.0
Total Units 15.0

Certifcate E0723
This certifcate will provide the basic knowledge for developing a model and creating a design for business application programs using object-oriented approach and UML.

Requirements for the Certifcate
Required courses:
- CISP 10 Principles of Object-Oriented Design 2.0
or
- CISP 11 Programming in Visual Basic 4.0 CSU,UC
or
- CISP 21 Programming in Java 4.0 CSU,UC
or
- CISP 31 Programming in C++ 4.0 CSU,UC
or
- CISP 41 Programming in C# 4.0
or
- CISP 14 Advanced Visual Basic Programming 4.0 CSU,UC
or
- CISP 24 Advanced Java Programming 4.0
or
- CISP 34 Advanced C++ Programming 4.0 CSU,UC
or
- CISP 44 Advanced Programming in C# 4.0
Total Units 10.0

Certifcate E0722
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program prepares the student to develop applications using C# for Windows or Web based programs.

Requirements for the Certifcate
Required courses:
- CISP 11 Database Management – Microsoft Access 4.0
or
- CISP 21 Database Management – Microsoft SQL Server 4.0
or
- CISP 31 Database Management – Oracle 4.0
or
- CISP 10 Principles of Object-Oriented Design 2.0
or
- CISP 41 Programming in C# 4.0
or
- CISP 44 Advanced Programming in C# 4.0
Total Units 14.0

Certifcate E0770
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program prepares the student to develop applications using C# for Windows or Web based programs.

Requirements for the Certifcate
Required courses:
- CISP 11 Database Management – Microsoft Access 4.0
or
- CISP 21 Database Management – Microsoft SQL Server 4.0
or
- CISP 31 Database Management – Oracle 4.0
or
- CISP 10 Principles of Object-Oriented Design 2.0
or
- CISP 41 Programming in C# 4.0
or
- CISP 44 Advanced Programming in C# 4.0
Total Units 14.0
CIS Professional Certificate in LINUX
Computer Information Systems Department
Certificate E0796
This certificate is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to install, manage, and troubleshoot workstations, servers, and Local Area Networks using the Linux operating system. The certificate covers major topics of an industry standard certification exam for Linux.

Requirements for the Certificate
Required courses:
CISN 31 Linux Operating System 4.0 CSU
CISN 34 LINUX Networking and Security 4.0 CSU
Total Units 12.0

CIS Professional Certificate in Network Security
Computer Information Systems Department
Certificate E0721
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program is aimed to help students develop skills to design, implement, and maintain secured networks. The courses examine Firewall and VPN in various environments and platforms, use network protocol analyzing technology as a security tool to protect the networks from attacks, and illustrate network vulnerabilities from a hacker's perspective. This program will prepare the student to view and update databases, create and maintain database objects, and develop programs to automate database functions.

Requirements for the Certificate
Required courses:
CISD 21 Database Management 4.0
CISD 31 Database Management - Oracle 4.0
CISD 40 Database Design 3.0
Total Units 11.0

CIS Professional Certificate in SQL
Computer Information Systems Department
Certificate E0730
This certificate is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to view and update databases, create and maintain database objects, and develop programs to automate database functions.

Requirements for the Certificate
Required courses:
CISD 21 Database Management 4.0
CISD 31 Database Management - Oracle 4.0
CISD 40 Database Design 3.0
Total Units 11.0

CIS Professional Certificate in C++ Programming
Computer Information Systems Department
Certificate E0714
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop applications in C++ and Visual C++ and provide a basic understanding of Object-Oriented Design.

Requirements for the Certificate
Required courses:
CISD 11 Database Management 4.0
CISD 21 Database Management 4.0
CISD 31 Database Management - Oracle 4.0
CISP 10 Principles of Object-Oriented Design 2.0
CISP 31 Programming in C++ 4.0 CSU,UC
CISP 34 Advanced C++ Programming 4.0 CSU,UC
Total Units 14.0

CIS Professional Certificate in Oracle Programming
Computer Information Systems Department
Certificate E0700
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop applications using Java and includes techniques in Object Oriented Programming, web-based applets, servlets, navigating databases, and JavaBeans.

Requirements for the Certificate
Required courses:
CISD 11 Database Management 4.0 CSU
CISD 21 Database Management - Microsoft Access 4.0
CISD 31 Database Management - Oracle 4.0
CISP 10 Principles of Object-Oriented Design 2.0
CISP 21 Programming in Java 4.0 CSU,UC
CISP 24 Advanced Java Programming 4.0
Total Units 14.0

CIS Professional Certificate in Networking
Computer Information Systems Department
Certificate E0716
This curriculum is designed to help students develop skills to administer and manage the heterogeneous corporate network. The courses examine and illustrate communication protocols with various industrial leading network operating systems. The main objective of the certificate is to integrate and enhance knowledge for network administration. However, individual courses may assist students in preparing for related certification exams.

Requirements for the Certificate
Required courses:
CISN 11 Telecommunications/ Networking Fundamentals 4.0 CSU
CISN 24 Microsoft NT Network System Administration 4.0 CSU
CISN 41 Novell Netware Systems Administration 4.0 CSU
CISN 34 LINUX Networking and Security 4.0 CSU
CISN 51 CCNA Networking Fundamentals and Routing 4.0 CSU
Total Units 16.0

CIS Professional Certificate in Java Programming
Computer Information Systems Department
Certificate E0717
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to install, create, manage, administer, and troubleshoot an Oracle database. The program covers the major topics of an industry-standard certification exam for Oracle.

Requirements for the Certificate
Required courses:
CISD 33 Oracle Forms and Reports 4.0
CISD 40 Database Design 3.0
Total Units 11.0
### CIS Professional Certificate in Telecommunications

**Computer Information Systems Department**  
**Certificate E0718**

This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop a fundamental understanding of local area networks, wide area networks, and telecommunications.

#### Requirements for the Certificate

**Required courses:**
- CISN 11 Telecommunications Networking Fundamentals 4.0 CSU
- CISN 24 Windows Network System Administration 4.0
- CISN 51 CISCO Networking Fundamentals and Routing 4.0

**Total Units** 12.0

### CIS Professional Certificate in Visual Basic Programming

**Computer Information Systems Department**  
**Certificate E0719**

This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop applications using Visual Basic for Windows or Web based systems.

#### Requirements for the Certificate

**Required courses:**
- CISP 10 Principles of Object-Oriented Programming 2.0
- CISP 11 Programming in Visual Basic 4.0 CSU
- CISP 14 Advanced Visual Basic Programming 4.0 CSU
- CISP 11 Database Management – Microsoft Access 4.0
- CISP 21 Database Management – Microsoft SQL Server 4.0
- CISP 33 Database Management – Oracle 4.0

**Total Units** 14.0

### CIS Professional Certificate in Web Programming

**Computer Information Systems Department**  
**Certificate E0713**

This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop programming skills needed to create effective Web pages and websites using various scripting or markup languages like JavaScript, VBScript, HTML, DHTML, and XML. Includes practical knowledge of how to install, manage, and troubleshoot Web servers and access information from a database server. Helps students in obtaining programming jobs with companies with a Web presence.

#### Requirements for the Certificate

**Required courses:**
- CISP 11 The Internet 4.0 CSU
- CISP 24 Advanced Web Programming 4.0
- CISP 31 Web Servers 4.0

**Total Units** 12.0

### Coaching

**Physical Education Department**  
**Certificate E0804**

This certificate program is intended to prepare students for employment as high school (walk-on) coaches, but is appropriate for coaches at various levels.

#### Requirements for the Certificate

**Required courses:**
- PE 13 Sports Officiating 3.0 CSU,UC
- PE 34 Fitness for Living 3.0 CSU,UC
- PE 44 Theory of Coaching 3.0 CSU
- PE 81 Work Experience for Coaching 2.0

**Exit Requirement:** First Aid and CPR Certification

**Total Units** 11.0

### Culinary Arts - Level I

**Consumer Science and Design Technologies**  
**Certificate E1334**

This program will prepare students for food production job opportunities in the food service industry. The program emphasizes basic food preparation, commercial food production, and food safety and sanitation. Six units of elective courses allow the student to tailor the program to meet specific needs.

#### Requirements for the Certificate

**Required courses:**
- HRM 52 Food Safety and Sanitation 1.5 CSU
- HRM 54 Basic Cooking Techniques 3.0 CSU
- HRM 91 Work Experience in Restaurant/Hospitality 1.0 CSU
- NF 20 Principles of Foods With Lab 3.0 CSU

**PLUS**

Select six (6) units from:
- HRM 61 Menu Planning 3.0 CSU
- HRM 62 Catering 3.0 CSU
- NF 61 Creative Foods 3.0
- NF 62 Meal Management 3.0 CSU

**Total Units** 14.5

### Data Entry

**Office Technology Department**  
**Certificate E0791**

This program is intended to prepare students for employment as data entry operators, customer service representatives, receptionists, or entry-level office support staff positions. Training in a variety of computer skills is emphasized. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

#### Requirements for the Certificate

**Required courses:**
- COMP 2 Intermediate Computer Keyboarding 4.0
- COMP 12 Office Computer Applications 4.0 CSU,UC
- CISP 15 Microcomputer Applications 4.0 CSU,UC
- COMP 18 Data Entry 3.0

**Total Units** 11.0

### Educational Paraprofessional - Level I

**Psychology and Education Department**  
**Certificate E2187**

This certificate program is intended to prepare paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning and development. Students will be able to assist classroom teachers in working with children of all ages and backgrounds. Three classes assist students to prepare to pass the CBEST, as well.

#### Requirements for the Certificate

**Required courses:**
- CHLD 1 Child, Family and Community 3.0 CSU,UC
- EDUC 10 Introduction to Education 3.0 CSU,UC
- ENGL 68 English - Writing 3.0
- MATH 51 Elementary Algebra 4.0

**Total Units** 13.0

### Electronic Assembly and Fabrication

**Electronics and Computer Technology Department**  
**Certificate E0929**

The Electronic Assembly and Fabrication Certificate is intended to prepare students to enter the electronics field as assembly and fabrication technicians. The program prepares students to meet the needs of industry in assembly, soldering/de-soldering skills and fabrication for both through-hole and surface mount devices (SMD). Included are skills for various types of cabling and connections.

#### Required courses:
- ELEC 61 Electronic Assemblies Recertification 2.0
- ELEC 62 Advanced Surface Mount Assembly and Repair 2.0
- EST 50 Electrical Fundamentals for Cable Installations 4.0

**Total Units** 12.0

#### Recommended Electives:
- ELEC 63 Electronic Assemblies Recertification

### Educational Paraprofessional - Level I

**Psychology and Education Department**  
**Certificate E2187**

This certificate program is intended to prepare paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning and development. Students will be able to assist classroom teachers in working with children of all ages and backgrounds. Three classes assist students to prepare to pass the CBEST, as well.

#### Requirements for the Certificate

**Required courses:**
- CHLD 1 Child, Family and Community 3.0 CSU,UC
- EDUC 10 Introduction to Education 3.0 CSU,UC
- ENGL 68 English - Writing 3.0
- MATH 51 Elementary Algebra 4.0

**Total Units** 13.0

### Electronic Assembly and Fabrication

**Electronics and Computer Technology Department**  
**Certificate E0929**

The Electronic Assembly and Fabrication Certificate is intended to prepare students to enter the electronics field as assembly and fabrication technicians. The program prepares students to meet the needs of industry in assembly, soldering/de-soldering skills and fabrication for both through-hole and surface mount devices (SMD). Included are skills for various types of cabling and connections.

#### Required courses:
- ELEC 61 Electronic Assemblies Recertification 2.0
- ELEC 62 Advanced Surface Mount Assembly and Repair 2.0
- EST 50 Electrical Fundamentals for Cable Installations 4.0

**Total Units** 12.0

#### Recommended Electives:
- ELEC 63 Electronic Assemblies Recertification
Electronic Systems Technology - Level I
Electronics and Computer Technology Department
Certificate E0990
This is a fast-track certificate program within the fields of information and electronic technology. These fields are growing at rapid rates. The program provides job skills in the areas of low voltage cable and wire installations used in the telephone industry, computer networks (business and home), home theater, home automation, and home security systems (integrated home systems). Typical job titles in these areas are data or cable technician, low-voltage wiring technician, home theatre installer, consumer electronics service technician and security system installer. The program prepares the student for the California State Contractors C-7 Low Voltage Systems license. The program encompasses a total of 27-29 units comprising two levels of certification. The level I certification (15-16 units) develops skills in electrical fundamentals, fabrication techniques, cabling and wiring standards for voice, video and data, and basic computer skills in word processing, spreadsheets, database and the Internet. Level II certification (12-13 units) adds customer relations and advanced skills in the installation, calibration, setup, maintenance, and troubleshooting of home theater systems, home automation, and home security systems. Either a course on preparing for the C-7 license or troubleshooting digital TV with LCD, plasma, and DLP video displays is included.

Required courses:
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- EST 50 Electrical Fundamentals 4.0 for Cable Installations
- EST 52 Fabrication Techniques 4.0 for Cable Installations
- EST 54 Cabling and Wiring Standards 4.0

Total Units 15.0 - 16.0

Emergency Medical Technician - Level I
Medical Services Department
Certificate E1212
Approved by the Los Angeles County and State Departments of Health. Emphasizes the development of skills to recognize symptoms of illnesses and injuries as well as the proper procedures of pre-hospital emergency care. Awards an EMT-I Course Completion Certificate necessary for many jobs in emergency care and is prerequisite for entry into a Paramedic program or most fire department programs.

Requirements for the Certificate
Required courses:
- EMT 90 Emergency Medical Technician I 10.0
- Total Units 10.0

Special Information:
To remain in the program, students must maintain a grade of “C” or better in the course.
Completion of the required course, which includes both written and practical qualifying examinations, will award the student an EMT-I Course Completion Certificate. Students are then eligible for certification by taking and passing the National Registry EMT-I certifying exam. This course is a prerequisite for the Paramedic Program and is required by most fire departments before the student may be hired as a firefighter.

Application Requirements and Selection Procedures
Application Requirements:
- a) Applicant must be 18 years of age upon entrance into the course.
- b) High school graduate or equivalent.
- c) File a College application and be accepted as a student at Mt. San Antonio College.
- d) A physical examination, proof of certain immunizations, current certification in CPR, and a criminal background check are required of all students prior to entrance into the clinical setting. Forms and information will be provided upon entrance into the course.

Selection Procedure:
The course is open to all students who meet the application requirements. All Applicants are required to meet the Essential Functions in the Emergency Medical Technician Program.

Physical Demands:
- Perform prolonged, extensive, or considerable standing/walking, lifting positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift and carry at least 125 pounds)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

Sensory Demands:
- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices)
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

Working Environment:
- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposure to products containing latex

English Language Skills:
Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

Fashion Design - Computer-Aided
Consumer Science and Design Technologies Certificate E1329
The Fashion Design - Computer-Aided Certificate builds upon basic skills and provides students with intermediate technical and technological skills in fashion design and patternmaking. With a diversified skill base that includes CAD technology, students will be better prepared for above entry-level positions and/or advancement to new career opportunities.

Requirements for the Certificate
Required courses:
- FASH 20 Illustration for Fashion and Costume Design 3.0
- FASH 24 Fashion Patternmaking by Computer 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 26 Fashion Computer Assisted Design 2.0
- Total Units 14.0

Fashion Merchandising - Level I
Consumer Science and Design Technologies Certificate E1388
The Fashion Merchandising Level I Certificate prepares the holder for entry-level positions in a variety of retail merchandising, manufacturing, and promotion businesses.

Requirements for the Certificate
Required courses:
- FASH 8 Introduction to Fashion 3.0 CSU
- FASH 10 Clothing Construction I 3.0 CSU
- FASH 15 Fashion Strategies 3.0 CSU
- FASH 17 Textiles 3.0 CSU, UC
- FASH 30 Fashion Design and Product Development I 3.0
- Total Units 15.0
FIRE 8 Fire Company Organization 3.0 CSU

**FIRE 60 Fire Investigation 1A 2.0**

**FIRE 30 Fire Management 1 2.0**

**FIRE 21 Fire Instructor 1B 2.0**

**FIRE 20 Fire Instructor 1A 2.0**

**FIRE 10 Arson and Fire Investigation 3.0 CSU**

**FIRE 51 Fire Command 1B 2.0**

**FIRE 50 Fire Command 1A 2.0**

**FIRE 40 Fire Prevention 1A 2.0**

**FIRE 41 Fire Prevention 1B 2.0**

**Fire Administration**

**Fire Technology Department**

**Certificate E2130**

The Fire Administration Certificate prepares public agency firefighters or private fire personnel for career advancement and provides personal development. This certificate prepares students for positions as chief officers such as battalion chief, deputy chief, or division chief. Content focuses on advanced job skills in life safety, interpersonal skills, human resource management, investigation, command presence, and implementation of local/state fire regulations. This certificate meets the requirements of the California State Board of Fire Services Certified Fire Officer Program.

**Requirements for the Certificate**

**Required courses:**

- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0
- FIRE 30 Fire Management 1 2.0
- FIRE 40 Fire Prevention 1A 2.0
- FIRE 41 Fire Prevention 1B 2.0
- FIRE 50 Fire Command 1A 2.0
- FIRE 51 Fire Command 1B 2.0
- FIRE 60 Fire Investigation 1A 2.0

**Total Units 16.0**

**Certification Requirements**

- FIRE 8 Fire Company Organization 3.0 CSU
- FIRE 7 Fire Fighting Tactics and Strategy 3.0 CSU

**Fire Management**

**Fire Technology Department**

**Certificate E2131**

The Fire Management Certificate prepares public agency firefighters or private fire personnel for career advancement and provides personal development. This certificate prepares students for career advancement as supervisors and managers. The student will develop leadership, management, and supervisory competencies including leadership philosophy, ethics, diversity, and the difference between managing and leading people. Content focuses on job skills in organizational management, human resources, risk management, diversity, interpersonal skills, personnel and equipment, fire ground tactics and strategy, and investigation techniques. This certificate meets the requirements of the California State Board of Fire Services Certified Fire Officer Program.

**Requirements for the Certificate**

**Required courses:**

- FIRE 7 Fire Fighting Tactics and Strategy 3.0 CSU
- FIRE 8 Fire Company Organization 3.0 CSU
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0
- FIRE 30 Fire Management 1 2.0
- FIRE 40 Fire Prevention 1A 2.0
- FIRE 41 Fire Prevention 1B 2.0
- FIRE 50 Fire Command 1A 2.0
- FIRE 51 Fire Command 1B 2.0
- FIRE 60 Fire Investigation 1A 2.0

**Total Units 17.0**

**Recommended Electives:**

- DNCE 39A Alignment and Correctives I

**Fitness Specialist/Personal Trainer**

**Physical Education Department**

**Certificate E0808**

The Fitness Specialist/Personal Trainer Certificate prepares students for careers as personal trainers, health/fitness professionals in corporate fitness facilities, wellness centers and public/private health clubs. The Fitness Specialist/Personal Trainer Certificate curriculum is designed to prepare students who wish to take exams offered by the American Council on Exercise (ACE), the American College of Sports Medicine (ACSM) and other nationally recognized organizations. Technical skills necessary for implementation of a safe, effective and motivational physical fitness program are presented.

**Requirements for the Certificate**

**Required courses:**

- NF 10 Nutrition for Personal Health and Wellness 3.0 CSU
- PE 15 Administration of Fitness Programs 2.0
- PE 24 Kinesiology 2.0
- PE 38 Physiology of Exercise for Fitness 3.0
- PE 39 Techniques of Fitness Testing 2.0 CSU
- PE 40 Techniques of Teaching Cardiovascular Exercise 2.0
- PE 41 Techniques of Teaching Weight Training 2.0
- PE 85 Fitness Specialist Internship 1.0

**Total Units 12.0**

**Recommended Electives:**

- PNCE 39A Alignment and Correctives I

**Gallery Design/Operation and Art Profession**

**Fine Arts**

**Certificate E1020**

This certificate is designed to provide students with the necessary theoretical and practical knowledge and skills to display an aesthetically and conceptually effective art exhibition. Students will acquire the knowledge of various/diverse artistic media and develop a career-oriented artistic perspective.

**Requirements for the Certificate**

**Required courses:**

- ARTG 20 Art, Artists and Society 3.0 CSU
- ARTG 21A Introduction to Exhibition Production 3.0 CSU
- ARTG 21B Intermediate Exhibition Production 3.0 CSU
- ARTG 22A Exhibition Design and Art Gallery Operation Work Experience 1.0

**PLUS**

- Choose one (1) course from:
  - ARTG 20 Art, Artists and Society 3.0 CSU
  - ARTG 21A Introduction to Exhibition Production 3.0 CSU
  - ARTG 21B Intermediate Exhibition Production 3.0 CSU
  - ARTG 22A Exhibition Design and Art Gallery Operation Work Experience 1.0

**Total Units 7.5**

**Geographic Information Systems**

**History, Art History, Geography, Political Science**

**Certificate E2200**

The Geographic Information Systems program is designed to provide students with the necessary theoretical and practical knowledge and skills to display an aesthetically and conceptually effective art exhibition. Students will acquire the knowledge of various/diverse artistic media and develop a career-oriented artistic perspective.

**Requirements for the Certificate**

**Required courses:**

- GEOG 10 Introduction to Geographic Information Systems 3.0 CSU
- GEOG 11 Intermediate GIS 3.0

**PLUS**

- Choose one (1) course from:
  - GEOG 3 Map Reading and Interpretation 3.0 CSU
  - GEOG 10 Introduction to Geographic Information Systems 3.0 CSU
  - GEOG 11 Intermediate GIS 3.0

**Total Units 9.0**

**Hospitality: Food Services**

**Consumer Science and Design Technologies**

**Certificate E1390**

This certificate prepares the holder to enter the food service field as a skilled food service worker in either food preparation or service.

**Requirements for the Certificate**

**Required courses:**

- HRM 51 Introduction to Hospitality 3.0 CSU
- HRM 52 Food Safety and Sanitation 1.5 CSU
- HRM 53 Dining Room Service Management 3.0 CSU

**PLUS**

- Choose one (1) course from:
  - HRM 51 Introduction to Hospitality 3.0 CSU
  - HRM 52 Food Safety and Sanitation 1.5 CSU
  - HRM 53 Dining Room Service Management 3.0 CSU

**Total Units 7.5**
Programs of Study Leading to a Certificate

Hospitality: Hospitality Management - Level I
Consumer Science and Design Technologies Certificate E1332
The Hospitality: Hospitality Management - Level I Certificate prepares the holder for an entry-level position within the hospitality industry.

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51 Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 53 Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 70 Introduction to Lodging</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91 Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
<tr>
<td>Total Units</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Hospitality: Restaurant Management - Level I
Consumer Science and Design Technologies Certificate E1333
The Hospitality: Restaurant Management - Level I Certificate prepares the holder for an entry-level position within a restaurant.

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51 Introduction to Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 52 Food Safety and Sanitation Management</td>
<td>1.5</td>
</tr>
<tr>
<td>HRM 53 Dining Room Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 91 Work Experience in Restaurant/Hospitality</td>
<td>1.0</td>
</tr>
<tr>
<td>Total Units</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Information and Operating Systems Security
Computer Information Systems Department Certificate E0731
This certificate will provide the fundamental knowledge needed to analyze the risk to one's network and systems and the steps necessary in order to select and deploy the appropriate countermeasures to reduce the computer's exposure to network threats.

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 11 Practical Computer Security</td>
<td>2.0</td>
</tr>
<tr>
<td>CISS 13 Principles of Information</td>
<td>4.0</td>
</tr>
<tr>
<td>CISS 15 Operating Systems Security</td>
<td>4.0</td>
</tr>
<tr>
<td>Total Units</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Introduction to Computer Information Technology
Computer Information Systems Department Certificate E0712
This program is designed as a foundational introduction to the computer and informational technology environment. This program will introduce the student to computer concepts, microcomputer applications, web/computer programming, and the Internet.

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIS 11 Computer Information Systems 3.5 CSU,UC</td>
<td></td>
</tr>
<tr>
<td>CISS 11 The Internet</td>
<td>4.0</td>
</tr>
<tr>
<td>COMP 12 Office Computer Applications 4.0 CSU,UC or</td>
<td></td>
</tr>
<tr>
<td>CISS 15 Microcomputer Applications 4.0 CSU,UC</td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>11.5</td>
</tr>
</tbody>
</table>

LVN 30-Unit Option - Career Mobility Track
Nursing Department Certificate E1202
In keeping with Section 1429 of the Board of Registered Nursing Rules and Regulations, completion of this certificate program entitles the student to apply for examination for licensure as a Registered Nurse in the State of California. This option is specifically designed for California licensees. Other states do not have this provision in their laws; therefore, endorsement for licensure may not be granted.

A certificate documenting completion is awarded at the end of the course of study. The student who elects to complete this option track is not a graduate of the Associate of Science Degree Nursing Program at Mt. San Antonio College. Individuals who complete this track are not eligible to return to the college at a later date to complete a degree in nursing. LVN applicants must declare their educational goal at the time of application (30-Unit or Associate Degree). This decision is not subject to change at a later date.

Prerequisite Courses:
1. Human Anatomy, including a laboratory component, a minimum of four semester units.
2. Human Physiology, including a laboratory component, a minimum of four semester units.
3. Microbiology, including a laboratory component, a minimum of four semester units.

Non-course requirements:
1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a "C" for each course and no more than one repetition of any one of these courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for Math 51
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Possess a California Licensed Vocational Nurse license.
6. Criminal background check and drug screening must be completed prior to any patient contact.
7. A physical examination, including specific immunizations is required of candidates prior to the beginning of nursing classes.
8. Current Level C-Provider CPR certification
9. Nursing 70 Role Transition must be completed with a credit grade prior to entrance into the program. (NURS 70, Role Transition - Due to the clinical component of NURS 70, applicants must submit their names to the Nursing Office for approval prior to enrollment in this course. Applicants must have completed all prerequisite courses prior to taking NURS 70. Applicants must provide proof of current Vocational Nurse License, physical, CPR card, Background Check, and drug testing prior to the start of class.)

Requirements for the Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5 Psychiatric Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS 9 Leadership in Nursing</td>
<td>1.0</td>
</tr>
<tr>
<td>NURS 10 Medical-Surgical Nursing: Integration/Regulation</td>
<td>4.0</td>
</tr>
<tr>
<td>NURS 11 Preceptorship in Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Units</td>
<td>15.0</td>
</tr>
</tbody>
</table>

PSYC 1A must be completed prior to entrance into NURS 5, Psychiatric Nursing.

Selection Process:
Beginning Fall 2006, students applying for admission to the Nursing Program will be required to see either a counselor or educational advisor to verify their eligibility to enter the Nursing program.

Procedure:
Students must complete all course prerequisites prior to requesting an appointment for certifying readiness to enter into the Nursing program. Once eligibility has been established, students will enter on a first come first served basis. The eligibility appointment:

a) Once a student has completed all course prerequisites, the student will then apply to the Nursing Department on an appointment basis.

b) Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:

- Official transcripts of all college work completed at all colleges;
- If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
- Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions Office).
- Due to specific college deadlines for International Student applications, please inform the Counselor/Educational Advisor that this applies to you.

c) All students will need to bring official proof of high
ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL SECURITY FRAUD, AS WELL AS TESTING NEGATIVE FOR DRUG USE. PASS BOTH A CRIMINAL BACKGROUND CHECK, INCLUDING A SCREENING CLINICAL PORTION OF THE PROGRAM, THEY WILL NEED TO BE ABLE TO EXPOSURE TO PRODUCTS CONTAINING LATEX.

English Language Skills:
Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

Working Environment:
- May be exposed to infectious and contagious diseases, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts

Contact with patients having different religious, culture, ethnicity race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Handle emergency or crisis situations
- Requires decisions/actions related to end of life issues
- Exposure to products containing latex

Machine Operator
Aircraft Maintenance Technician & Manufacturing Technology
Certificate E0956
This certificate provides a foundation of basic skills for employment in a variety of entry-level manufacturing positions.

Requirements for the Certificate
Required courses:
- MFG 11 Manual and CNC Manufacturing Essentials 2.0 CSU
- MFG 12 Advanced Manufacturing Processes 2.0 CSU
- MFG 58 Blueprint Reading for Manufacturing 2.0
- MFG 70 Technical Mathematics - Manufacturing Applications 2.0 CSU
- MFG 85 Manual and CNC (Computerized Numerical Control) Operations 2.0 CSU
- Plus 1 course from:
  - MFG 38 MasterCAM I 2.0 CSU
  - MFG 39 SurfCAM I 2.0 CSU
- Total Units 12.0

MasterCAM
Aircraft Maintenance Technician & Manufacturing Technology
Certificate E0927
This certificate provides a strong background in MasterCAM 2-D, 3-D, and Solids packages along with the necessary machine shop theory and practice to input sound functional data into the CAD/CAM system.

Requirements for the Certificate
Required courses:
- MFG 11 Manufacturing Processes I 2.0 CSU
- MFG 38 MasterCAM I 2.0 CSU
- MFG 38B Advanced MasterCAM 2.0 CSU
- MFG 85 Manual CNC Program 2.0 CSU
- Total Units 6.0

Sensory Demands:
- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices).
- Distance perception: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

Physical Demands:
- Perform prolonged, extensive, or considerable standing/walking, lifting, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
- Perform considerable reaching, stooping, bending, kneeling, and crouching.

Nutrition Program Assistant - Level I
Consumer Science and Design Technologies
Certificate E1331
This certificate prepares students to work for community agencies and programs as nutrition assistants.

Requirements for the Certificate
Required courses:
- HRM 52 Food Safety and Sanitation 1.5 CSU
- NF 25 Essentials of Nutrition 3.0 CSU
- NF 25H Essentials of Nutrition - Honors 3.0 CSU,UC
- NF 10 Nutrition for Personal Health and Wellness 3.0 CSU
- NF 28 Cultural and Ethnic Foods 3.0 CSU,UC
- Total Units 6.0

Plus the following courses:
- NF 25H Essentials of Nutrition - Honors 3.0 CSU,UC
- NF 10 Nutrition for Personal Health and Wellness 3.0 CSU
- Total Units 16.5

Nutrition Program Assistant - Level II: Child Program Emphasis
Consumer Science and Design Technologies
Certificate E1335
This certificate prepares students to work for community agencies such as the Federal Supplemental Nutrition Program for Women, Infants and Children (WIC), Head Start, and School Food Service as nutrition assistants. Coursework is designed to provide basic skills and knowledge necessary to entry-level positions in nutrition programs that serve children.

Requirements for the Certificate
Required courses:
- HRM 52 Food Safety and Sanitation 1.5 CSU
- NF 20 Principles of Foods With Lab 3.0 CSU
- NF 25 Essentials of Nutrition 3.0 CSU,UC
- NF 25H Essentials of Nutrition - Honors 3.0 CSU,UC
- NF 10 Nutrition for Personal Health and Wellness 3.0 CSU
- Total Units 12.0

Nutrition Program Assistant - Level II: Weight Management Program Emphasis
Consumer Science and Design Technologies
Certificate E1336
This certificate prepares students to work as nutrition assistants in the public or private sector. Coursework is designed to provide the basic skills and knowledge necessary for entry-level positions in a variety of businesses, agencies and programs that focus on weight management.

Requirements for the Certificate
Required courses:
- HRM 52 Food Safety and Sanitation 1.5 CSU
- NF 20 Principles of Foods With Lab 3.0 CSU
- NF 25 Essentials of Nutrition 3.0 CSU,UC
- NF 25H Essentials of Nutrition - Honors 3.0 CSU,UC
### Programs of Study Leading to a Certificate

**Nutrition for Personal Health and Wellness**  
NF 10 Nutrition for Personal Health and Wellness  3.0 CSU
**Cultural and Ethnic Foods**  
NF 28 Cultural and Ethnic Foods  3.0 CSU, UC

Plus the following courses:
- **Cooking for Your Heart and Health**: NF 81 1.0
- **Fitness for Living**: PE 34 3.0 CSU, UC
- **Introduction to Interviewing and Counseling**: PSYC 40 3.0

**Total Units**: 17.5

### Parametric Solid Modeling

**Aircraft Maintenance Technician & Manufacturing Technology Certificate E0923**

With the strong relationship between AutoCAD and Manufacturing, this mini certificate glides the student through AutoDesk's 2-D, 3-D, Mechanical Desktop, and Inventors packages and relates them to real-life industrial usage.

**Requirements for the Certificate**

**Required courses:**
- MFG 15 AutoCAD 2D 2.0
- MFG 17 3-D CAD - Mechanical Modeling 2.0
- MFG 19 Parametric Solid Modeling for Manufacturing 2.0
- MFG 25 Advanced Parametric Solid Modeling for Manufacturing 2.0
- MFG 27 Autodesk Inventor 2.0

**Total Units**: 18.0

### SurfCAM

**Aircraft Maintenance Technician & Manufacturing Technology Certificate E0925**

This certificate is a direct path for manufacturing students to write, edit, download and run Computerized Numerical Control (CNC) machines, and provides a strong background in the basics of both manual and CNC machines.

**Requirements for the Certificate**

**Required courses:**
- MFG 11 Manufacturing Processes I 2.0 CSU
- MFG 39 SurfCAM I 2.0 CSU
- MFG 39B SurfCAM II 2.0 CSU
- MFG 85 Manual CNC (Computerized Numerical Control) Operations 2.0 CSU

**Total Units**: 8.0

### Welding

**Air Conditioning, Water & Welding Technologies Certificate E0919**

This program is designed to prepare the student for employment in the broad field of welding and (1) leads to occupations in manufacturing and repair, and (2) helps prepare the student for positions in supervision.

Courses in the welding curriculum prepare students for welding certificates. The College is a testing agency for the City of Los Angeles, and is authorized to administer the performance test for the Structural Welding certificate. There is a $50 charge for students and $60 for non-students to take this test. Topics of the written portion of the test which is administered by the City are reviewed in various welding courses offered by the College.

**Requirements for the Certificate**

**Required courses:**
- WELD 40 Introduction to Welding 2.0 CSU
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0

**Total Units**: 8.0

Note: Any higher level welding courses may be substituted for WELD 70A.

**Recommended Electives:**
- MFG 70 Technical Mathematics - Manufacturing Applications
- WELD 60 Print Reading and Computations for Welders
- WELD 70C Certification for Welders T1279

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2009-10 Mt. San Antonio College Catalog
Section 8

Programs of Study Leading to an Associate of Arts Degree or an Associate of Science Degree
Programs Leading to an Associates Degree

PROGRAMS OF STUDY LEADING TO AN ASSOCIATE DEGREE

Mt. San Antonio College offers both Associate of Science (A.S.) and Associate of Arts (A.A.) degrees. In general, the Associate of Science degrees are two-year occupational degrees that prepare students for a variety of career and technical fields. The Associate of Arts degrees, while not intended specifically for transfer, are two-year degrees in Liberal Arts and Sciences that provide for broad exploration of a specific area of emphasis. In many cases, with appropriate academic advising, students obtaining the Associate of Arts degree will find that they have a solid foundation for further postsecondary study should they wish to transfer at a later date.

GENERAL REQUIREMENTS FOR AN ASSOCIATE DEGREE

Application for Graduation

The Application for Graduation is the student’s notification to the Admissions and Records Office and to have on file all required documents and official transcripts. The deadline dates for submitting the Application for Graduation are as follows:

- **Fall:** deadline to apply for fall graduation is the end of the ninth week of the fall semester.
- **Winter:** deadline to apply for winter graduation is the end of the ninth week of the winter semester.
- **Spring:** deadline to apply for spring graduation is the end of the ninth week of the spring semester.
- **Summer:** deadline to apply for summer graduation is the end of the ninth week of the spring semester.

Students should check the Schedule of Classes in the Key Dates to Remember section for specific deadline dates for any given semester. Applications received after the deadline will be processed with the next graduation cycle. Students may apply for graduation one semester prior to completing all required coursework. Once the degree has been conferred, the degree will be posted to the student’s academic record and will appear on the transcript. Students will also receive their diplomas in the mail thereafter. If a student is denied graduation, he or she will be informed in writing.

Multiple Degrees

The Associate of Science degree shall be awarded to students who major in one of the occupational programs at Mt. San Antonio College. Students may be awarded both an Associate of Science degree and an Associate of Arts degree with the 60 units required for an Associate degree if they have met the requirements for both within the 60 units or earned credit. Each additional degree requires 18 units of coursework beyond the 60 units required for the first degree(s), and must include the satisfactory completion of all the required courses in the additional major. Students awarded additional degrees must meet or complete the current general education requirements in effect at the time of re-entry.

Residency Requirement

The Residency Requirement for Mt. San Antonio College can be met in either of two ways: (1) twelve (12) units in residence and enrollment at Mt. San Antonio College in the last semester or (2) forty-five (45) units in residence, if the last semester is not at Mt. San Antonio College.

Students must meet with a Counselor to discuss their Education Plan prior to submitting the Application for Graduation with the Admissions and Records Office and have on file all required documents and official transcripts. The deadline dates for submitting the Application for Graduation are as follows:

- **Fall:** deadline to apply for fall graduation is the end of the ninth week of the fall semester.
- **Winter:** deadline to apply for winter graduation is the end of the ninth week of the winter semester.
- **Spring:** deadline to apply for spring graduation is the end of the ninth week of the spring semester.
- **Summer:** deadline to apply for summer graduation is the end of the ninth week of the spring semester.

NOTE: All courses used for the A.A. degree majors may be doubled counted toward the Mt. San Antonio College General Education requirements.

NOTE: All students must file a petition for graduation with the Admissions & Records Office and have on file all required documents and transcripts.

GRADUATION REQUIREMENTS 2009-2010

The following requirements apply to both Associate of Science (A.S.) and Associate of Arts (A.A.) degrees:

**Unit Requirement:** Sixty (60) degree-appropriate units. A letter grade of “C” or better is required for each course required for graduation.

**General Education Requirements:** At least 24 units are required and shall include courses in each of the General Education Areas A through E (see pages 66-67). All courses must be completed with a grade of “C” or better.

**Physical Well-Being Requirement:** Complete at least one of the physical education activity courses with the following prefixes: DNCE, PE-A, PE-F, PE-I, PE-L, PE-S, PE-X with a grade of “C” or better or “CR”.

**Reading Competency:** This requirement is met by completing one of the following with a grade of “C” or better:
- READ 90 Preparing for College Reading
- AMML 33R American Language Advanced Reading
- or obtaining placement into READ 100 on initial Reading Placement exam
- or obtaining a satisfactory score on the Reading Competency Test.

**Math Competency:** This requirement is met by completing one of the following with a grade of “C” or better:
1. Math 71 Intermediate Algebra, or
2. Math 71B Intermediate Algebra - Second Half, or
3. Math 71X Practical Intermediate Algebra, or
   - Completing a more advanced college level mathematics course, or
   - Obtaining a satisfactory score on the Intermediate Algebra Competency Examination.

**GPA Requirement:** A Mt. San Antonio College “degree” total grade point average, and “all college” total grade point average of 2.0.

**Residency Requirement:** The residency requirement for Mt. San Antonio College can be met in either of two ways:
1. 12 units in residence and enrollment in last semester, or
2. 45 units in residence if the last semester is not at Mt. SAC.

**Additional Requirements for the Associate of Science Degree**
Students must complete all required courses in an approved occupational major with a minimum grade of “C” in all course. See pages 69-95 for listings of the Associate in Science degree majors.

**Additional Requirements for the Associate of Arts Degree**
Students must complete a pattern of 18 or more units from the courses identified within a specific area of emphasis with a minimum grade of “C” in all courses. See pages 96-100 for listings of the Associate in Arts in Liberal Arts & Sciences areas of emphasis.
GENERAL EDUCATION REQUIREMENTS

Philosophy Statement
General education is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, the acquisition of which is the distinctive characteristic of the educated person. General education courses emphasize the ability to reason, to examine issues from different perspectives, to challenge authority, and to communicate ideas logically and confidently. They instill open-mindedness, respect for differences among people, and knowledge of self. By exposing students to different fields of study, general education courses provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning. Together with other Mt. San Antonio College degree requirements, the general education component of the associate degree prepares students to:

- transfer to and function successfully in a baccalaureate degree-granting institution;
- enter the work force as a competent, productive citizen;
- live a richer, more rewarding life.

General education courses are not primarily skills-based, nor are they limited to, or more appropriate for, majors in a specialized field of study. Courses that fulfill general education requirements must:

1. Require post-secondary level skills in reading, writing, quantitative reasoning, and critical thinking.

2. Improve students’ abilities to:
   - communicate oral and written ideas effectively;
   - define problems, design solutions, critically analyze results;
   - use available media to access and retrieve reliable information for data gathering and research;
   - work effectively, both cooperatively and independently;
   - develop and question personal and societal values, make informed choices, and accept responsibility for their decisions;
   - function as active, responsible, ethical citizens;
   - acquire the curiosity and skills essential for lifelong learning.

3. Impart understanding, knowledge, and appreciation of:
   - our shared scientific, technological, historical, and artistic heritage, including the contributions of women, ethnic minorities, and non-Western cultures;
   - the earth’s ecosystem, including the processes that formed it and the strategies that are necessary for its maintenance;
   - human social, political, and economic institutions and behavior, including their interrelationships;
   - the psychological, social, and physiological dimensions of men and women as individuals and as members of society.

Courses that fulfill general education requirements must fall into one of the content categories listed below:

A. Communication and Critical Thinking

B. Science and Math

C. Arts and Humanities

D. Social Sciences

E. Lifelong Understanding and Self-Development

Criteria for inclusion in each of the above categories are itemized below:

A. Communication and Critical Thinking

These courses emphasize both the content and form of communication. They teach students the relationship of language to logic, as well as how to analyze, criticize, and advocate ideas; to reason deductively and inductively; and to reach sound conclusions. Courses fulfilling this requirement:

- provide understanding of the psychological and social significance of communication;
- illustrate how communication operates in various situations;
- focus on communication from the rhetorical perspective: reasoning, advocacy, organization, accuracy; the discovery, critical evaluation, and reporting of information; reading, listening, speaking, and writing effectively;
- provide active participation and practice in written and oral communication.

B. Science and Mathematics

These courses impart knowledge about living and non-living systems, and mathematical concepts and quantitative reasoning with applications. Courses fulfilling this requirement:

- promote understanding and appreciation of the methodologies and tools of science;
- emphasize the influence of scientific knowledge on the development of civilization;
- impart appreciation and understanding of basic concepts, not just skills;
- offer specific inquiry into mathematical concepts, quantitative reasoning and application. (See Mt. SAC degree competency requirements.)

C. Humanities

These courses cultivate intellect, imagination, sensibility and sensitivity. They encourage students to respond subjectively as well as objectively and to develop a sense of the integrity of emotional and intellectual responses. Courses fulfilling this requirement:

- study great work of the human imagination;
- increase awareness and appreciation of the traditional humanistic disciplines such as art, dance, drama, literature, and music;
- impart an understanding of the interrelationship between creative art, the humanities, and the self;
- provide exposure to both Western and non-Western cultures;
- may include a foreign language course that contains a cultural component as opposed to a course that focuses solely on skills acquisition.

D. Social Sciences

These courses explore, at the micro and macro-level, the social, political, and economic institutions that underpin society. Courses fulfilling these requirements:

- promote understanding and appreciation of social, political, and economic institutions;
- probe the relationship between these institutions and human behavior;
- examine these institutions in both their historical and contemporary context;
- include the role of, and impact on, non-white ethnic minorities and women;
- include both Western and non-Western settings.

E. Lifelong Understanding and Self-Development

These courses facilitate an understanding of human beings as objectively and to develop a sense of the integrity of emotional and intellectual responses. Courses fulfilling this requirement:

- promote understanding and appreciation of the methodologies and tools of science;
- emphasize the influence of scientific knowledge on the development of civilization;
- impart appreciation and understanding of basic concepts, not just skills;
- offer specific inquiry into mathematical concepts, quantitative reasoning and application. (See Mt. SAC degree competency requirements.)
### GENERAL EDUCATION REQUIREMENTS FOR 2009-2010

**PROGRAMS LEADING TO AN ASSOCIATES DEGREE**

#### AREA A:

**Communication in the English Language (6 units):**
Select two [2] courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A</td>
<td>Freshman Composition, or ENGL 1AH Freshman Composition — Honors and SPCH 1A Public Speaking, or SPCH 1AH Public Speaking — Honors</td>
</tr>
</tbody>
</table>

**PHYSICAL SCIENCES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 5</td>
<td>Introduction to Astronomy</td>
</tr>
<tr>
<td>ASTR 5H</td>
<td>Introduction to Astronomy — Honors</td>
</tr>
<tr>
<td>ASTR 5L</td>
<td>Astronomical Observing Laboratory</td>
</tr>
<tr>
<td>ASTR 7</td>
<td>Geology of the Solar System</td>
</tr>
<tr>
<td>ASTR 8</td>
<td>Introduction to Stars, Galaxies, and the Universe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 20</td>
<td>Introductory Organic and Biochemistry</td>
</tr>
<tr>
<td>CHEM 40</td>
<td>Introduction to General Chemistry</td>
</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I — Honors</td>
</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>GEOG 1L</td>
<td>Elements of Physical Geography</td>
</tr>
<tr>
<td>GEOG 1LH</td>
<td>Elements of Physical Geography — Honors</td>
</tr>
<tr>
<td>GEOG 1</td>
<td>Physical Geography Lab</td>
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**LIFE SCIENCES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 24G</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 2BG</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Engineering Physics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
</tr>
<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>ANTH 1</td>
<td>Biological Anthropology</td>
</tr>
<tr>
<td>ANTH 1H</td>
<td>Biological Anthropology — Honors</td>
</tr>
<tr>
<td>ANTH 1L</td>
<td>Biological Anthropology Laboratory</td>
</tr>
<tr>
<td>BIOL 1</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIOL 2</td>
<td>Plant and Animal Biology</td>
</tr>
<tr>
<td>BIOL 3</td>
<td>Ecology and Field Biology</td>
</tr>
<tr>
<td>BIOL 4</td>
<td>Biology for Majors</td>
</tr>
<tr>
<td>BIOL 4H</td>
<td>Biology for Majors — Honors</td>
</tr>
<tr>
<td>BIOL 6</td>
<td>Humans and the Environment</td>
</tr>
<tr>
<td>BIOL 6L</td>
<td>Humans and the Environment Laboratory</td>
</tr>
<tr>
<td>BIOL 17</td>
<td>Neurobiology and Behavior</td>
</tr>
<tr>
<td>BIOL 20</td>
<td>Marine Biology</td>
</tr>
<tr>
<td>BIOL 21</td>
<td>Marine Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 24</td>
<td>Fundamentals of Genetics</td>
</tr>
<tr>
<td>MICR 1</td>
<td>Principles of Microbiology</td>
</tr>
<tr>
<td>MICR 22</td>
<td>Microbiology</td>
</tr>
<tr>
<td>PSYC 1B</td>
<td>Biological Psychology</td>
</tr>
</tbody>
</table>

#### AREA B:

**The Physical Universe and Life (3 units):**
Select one [1] course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 8L</td>
<td>Earth Science Laboratory</td>
</tr>
<tr>
<td>GEOG 1H</td>
<td>Elements of Physical Geography — Honors</td>
</tr>
<tr>
<td>ASTR 8</td>
<td>Introduction to Stars, Galaxies, and the Universe</td>
</tr>
</tbody>
</table>

**PHYSICAL SCIENCES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I — Honors</td>
</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
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**LIFE SCIENCES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 24G</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 2BG</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Engineering Physics</td>
</tr>
</tbody>
</table>

**GENERAL EDUCATION REQUIREMENTS FOR 2009-2010 (continued)**

#### AREA C:

**Arts and Humanities (6 units):**
Select two [2] courses, six (6) units minimum, with at least one [1] course from the Arts and one [1] from Humanities:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 1</td>
<td>Understanding the Visual Arts, or ARTS 1B Understanding the Visual Arts</td>
</tr>
<tr>
<td>ARTS 1H</td>
<td>Understanding the Visual Arts — Honors</td>
</tr>
<tr>
<td>ARTS 2</td>
<td>Topics in Visual Art and Culture</td>
</tr>
<tr>
<td>ARTS 2H</td>
<td>Topics in Visual Art and Culture — Honors</td>
</tr>
<tr>
<td>ARTS 3</td>
<td>History of Women and Gender in Art</td>
</tr>
<tr>
<td>ARTS 3H</td>
<td>History of Women and Gender in Art — Honors</td>
</tr>
<tr>
<td>ARTS 4</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
</tr>
<tr>
<td>ARTS 4H</td>
<td>History of Western Art: Prehistoric Through Gothic — Honors</td>
</tr>
<tr>
<td>ARTS 5</td>
<td>History of Western Art: Renaissance Through Modern</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 6</td>
<td>History of Modern Art</td>
</tr>
<tr>
<td>AHIS 6H</td>
<td>History of Modern Art — Honors</td>
</tr>
<tr>
<td>AHIS 9</td>
<td>History of Asian Art</td>
</tr>
<tr>
<td>AHIS 10</td>
<td>A History of Greek and Roman Art and Architecture</td>
</tr>
<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American Art</td>
</tr>
<tr>
<td>AHIS 12</td>
<td>History of Precolonial Brazil</td>
</tr>
<tr>
<td>AHIS 12H</td>
<td>History of Precolonial Brazil — Honors</td>
</tr>
<tr>
<td>ARCH 31</td>
<td>World Architecture I</td>
</tr>
<tr>
<td>ARCH 32</td>
<td>World Architecture II</td>
</tr>
<tr>
<td>ART 14</td>
<td>Basic Studio Arts</td>
</tr>
<tr>
<td>ART 15A</td>
<td>Drawing: Beginning</td>
</tr>
<tr>
<td>ART 20</td>
<td>Design: Two-Dimensional</td>
</tr>
<tr>
<td>ART 25A</td>
<td>Painting: Beginning</td>
</tr>
<tr>
<td>ARTG 20</td>
<td>Art, Artists and Society</td>
</tr>
<tr>
<td>ARTS 22</td>
<td>Design: Three-Dimensional</td>
</tr>
<tr>
<td>ARTS 30A</td>
<td>Ceramics: Beginning</td>
</tr>
<tr>
<td>ARTS 40A</td>
<td>Sculpture: Beginning</td>
</tr>
<tr>
<td>DN-T 20</td>
<td>History and Appreciation of Dance</td>
</tr>
<tr>
<td>ID 180</td>
<td>History of Interior Architecture and Furnishings I</td>
</tr>
<tr>
<td>MUS 7</td>
<td>Fundamentals of Music</td>
</tr>
<tr>
<td>MUS 11A</td>
<td>Music Literature Survey</td>
</tr>
<tr>
<td>MUS 11B</td>
<td>Music Literature Survey</td>
</tr>
<tr>
<td>MUS 12</td>
<td>History of Jazz</td>
</tr>
<tr>
<td>MUS 13</td>
<td>Introduction to Music Appreciation</td>
</tr>
<tr>
<td>MUS 13H</td>
<td>Introduction to Music Appreciation — Honors</td>
</tr>
<tr>
<td>MUS 14A</td>
<td>World Music</td>
</tr>
<tr>
<td>MUS 14B</td>
<td>American Folk Music</td>
</tr>
<tr>
<td>MUS 15</td>
<td>Rock Music History and Appreciation</td>
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<tr>
<td>PHOT 15</td>
<td>History of Photography</td>
</tr>
<tr>
<td>SPCH 4</td>
<td>Oral Interpretation of Literature</td>
</tr>
<tr>
<td>THTR 9</td>
<td>Introduction to Theatre Arts</td>
</tr>
<tr>
<td>THTR 10</td>
<td>History of Theatre Arts</td>
</tr>
<tr>
<td>THTR 11</td>
<td>Principles of Acting I</td>
</tr>
</tbody>
</table>

**HUMANITIES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAB 1</td>
<td>Elementary Arabic</td>
</tr>
<tr>
<td>ARAB 2</td>
<td>Continuing Elementary Arabic</td>
</tr>
<tr>
<td>CHIN 1</td>
<td>Elementary Chinese</td>
</tr>
<tr>
<td>CHIN 2</td>
<td>Continuing Elementary Chinese</td>
</tr>
<tr>
<td>CHIN 3</td>
<td>Intermediate Chinese</td>
</tr>
<tr>
<td>CHIN 4</td>
<td>Continuing Intermediate Chinese</td>
</tr>
<tr>
<td>ENGL 1B</td>
<td>English — Introduction to Literary Types</td>
</tr>
<tr>
<td>ENGL 1BH</td>
<td>English — Introduction to Literary Types — Honors</td>
</tr>
<tr>
<td>FRCH 1</td>
<td>Elementary French</td>
</tr>
<tr>
<td>FRCH 2</td>
<td>Continuing Elementary French</td>
</tr>
<tr>
<td>FRCH 3</td>
<td>Intermediate French</td>
</tr>
<tr>
<td>FRCH 4</td>
<td>Continuing Intermediate French</td>
</tr>
<tr>
<td>FRCH 5</td>
<td>Advanced French</td>
</tr>
<tr>
<td>FRCH 6</td>
<td>Continuing Advanced French</td>
</tr>
<tr>
<td>FRCH 60</td>
<td>French Culture Through Cinema</td>
</tr>
<tr>
<td>GERM 1</td>
<td>Elementary German</td>
</tr>
<tr>
<td>GERM 2</td>
<td>Continuing Elementary German</td>
</tr>
<tr>
<td>GERM 3</td>
<td>Intermediate German</td>
</tr>
<tr>
<td>*HIST 1</td>
<td>History of the U.S.</td>
</tr>
<tr>
<td>*HIST 3</td>
<td>History of World Civilization</td>
</tr>
<tr>
<td>*HIST 3H</td>
<td>History of World Civilization — Honors</td>
</tr>
<tr>
<td>*HIST 4</td>
<td>History of World Civilization</td>
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<td>JAPN 3</td>
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<td>PSYC 1A</td>
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<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology – Honors</td>
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</tbody>
</table>

*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.*

### GENERAL EDUCATION REQUIREMENTS FOR 2009-2010 (continued)

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<thead>
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<tr>
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</table>

Select one [1] course from the following:

**AD 3** Chemical Dependency: Intervention, Treatment and Recovery

*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.*

### ALPHABETICAL LISTING — ASSOCIATE OF SCIENCE DEGREE (A.S.)

Mt. San Antonio College offers two year occupational degrees in the following section of this Catalog. To qualify for the degree, students must complete the required courses for the major as shown, plus additional general education courses as listed on pages 66-67. For further information, please consult with Counseling and Advising Services on the upper level of the Student Services Center.

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Accounting
Accounting and Management Department
Major S0502

Students preparing to become professional accountants should follow the Business Administration course for a four-year college or university. The following is semi-professional training for those who seek employment in bookkeeping or accounting positions at the end of two years.

Requirements for the Major
Required courses:
BUSA 7 Principles of Accounting 5.0 CSU,UC
- Financial
BUSA 8 Principles of Accounting 5.0 CSU,UC
- Managerial
BUSA 21 Cost Accounting 4.0
BUSA 52 Intermediate Accounting 3.0
BUSA 53 Ten-Key Calculations 2.0
or
BUSA 81 Work Experience in Accounting 1.0
BUSA 58 Federal Income Tax Law 3.0
BUSA 70 Payroll and Tax Accounting 3.0
BUSA 75 Using Microcomputers 1.0
in Financial Accounting
or
BUSA 81 Work Experience in Accounting 1.0
BUSA 76 Using Microcomputers 1.0
in Managerial Accounting
or
BUSA 81 Work Experience in Accounting 1.0
BUSM 20 Principles of Business 3.0 CSU,UC
BUSO 25 Business Communications 3.0 CSU
Total Units 36.0 - 37.0

Administrative Assistant
Office Technology Department
Major S0514

This program is intended to prepare students for employment following graduation as administrative assistants, executive assistants, office managers, or other clerical and support staff. Training in a variety of computer and clerical skills is emphasized. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
BUSA 5 Business English 3.0
BUSO 25 Business Communications 3.0 CSU
BUSO 26 Oral Communications 3.0
for Business
COMP 2 Intermediate Computer Keyboarding 4.0
or
CISB 15 Microcomputer Applications 4.0 CSU,UC
or
CISB 15 Microcomputer Applications 4.0 CSU,UC
COMP 20 Word for the Business ProfessionalA.0
COMP 28 Office Management Skills 3.0
COMP 50 Desktop Presentations 4.0 CSU
Using PowerPoint
COMP 68 Transcription Techniques 3.0
PLUS
Select one (1) course from:
COMP 11 Internet Research for Business 2.0 CSU
or
COMP 13 Using Web Page Software 4.0 CSU
or
COMP 18 Data Entry 3.0
or
COMP 60 Business Publications Using Desktop Publishing Software
Total Units 33.0 - 35.0

Advertising Design and Illustration
Commercial and Entertainment Arts
Major S1003

This program is designed to provide students with a combination of critical thinking skills, problem solving capacities, and the technical expertise necessary for entry level employment as a Graphic Designer or Illustrator in Advertising and related Visual Communication industries.

Requirements for the Major
Required courses:
ARTD 60 Graphic Design: Lettering and Typography 3.0 CSU,UC
ARTD 66 Portfolio 3.0
ARTD 70 Computer Graphics: Introduction 3.0 CSU
ARTD 165 Illustration 3.0 CSU
ARTD 171 Computer Graphics 2: Advanced Layout and Design 3.0 CSU
ARTD 15A Drawing: Beginning 3.0 CSU,UC
ARTD 17A Drawing: Life 3.0 CSU,UC
ARTD 20 Design: Two Dimensional 3.0 CSU,UC
ARTD 25A Painting: Beginning 3.0 CSU,UC
PLUS
Select one (1) course from:
AHIS 5 History of Western Art: Renaissance Through Modern or
AHIS 5H History of Western Art - Renaissance Through Modern - Honors 3.0 CSU,UC
AHIS 6 History of Modern Art 3.0 CSU,UC
AHIS 6H History of Modern Art - Honors 3.0 CSU,UC
Total Units 30.0

Agri-Technology
Agricultural Sciences Department
Major S0101

The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The department offers a comprehensive Agricultural Sciences program and is unique in that most courses provide hands-on experiences designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which the courses are offered.

The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. Additional courses needed for completion of the Associate of Science Degree are listed in this catalog. It is recommended that all students consult with the department chairperson, faculty advisor, or counselor to file an educational plan.
Air Conditioning and Refrigeration

Air Conditioning, Water & Welding Technologies

Major S0909

This program is designed to prepare the student for employment in the broad field of air conditioning, heating and refrigeration and leads to occupations in design, manufacturing, operation, sales, distribution, installation, maintenance and repair. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

AIRC 10  Technical Mathematics  2.0
in Air Conditioning and Refrigeration
AIRC 11  Welding for Air Conditioning  2.0
AIRC 12  Air Conditioning Codes  3.0
and Standards
AIRC 20  Refrigeration Fundamentals  3.0
AIRC 25  Electrical Fundamentals  4.0
for Air Conditioning and Refrigeration
AIRC 26A  Heat Pump Fundamentals  1.5
AIRC 26B  Gas Heating Fundamentals  2.0
AIRC 30  Heat Load Calculations  3.0
AIRC 31  Commercial Electrical  4.0
for Air Conditioning and Refrigeration
AIRC 32A  Air Properties and Measurement  1.5
AIRC 32B  Air Distribution Systems  1.5
AIRC 34  Advanced Mechanical  4.0
Refrigeration
AIRC 37  Pneumatic Controls  2.0
AIRC 39  Building Automation Systems  4.0
Total Units 37.5

Airframe and Aircraft Powerplant Maintenance Technology-Evening

Aircraft Maintenance Tech & Manufacturing Dept.

Major S0911

This program prepares students to enter employment as a certified airframe and powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various airmframes and powerplants and their components. Completion of this program leads to an Associate of Science Degree. Two state-awarded certificates are also available upon successful completion of this program - one certificate in Airframe Maintenance Technology and one certificate in Aircraft Powerplant Maintenance Technology. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

This program offers a day (full-time) or evening (part-time) program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B. The evening program courses are offered in 9-week modules.

Successful completion of this program enables students to take the FAA examinations in Airframe, General, and Powerplant. Passing the General Exam plus the Airframe and/or Powerplant Exam provides certification as an Aircraft Maintenance Technician, which is required for employment in this field. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

AIRM 70A  Aircraft Maintenance Technology  3.0
AIRM 70B  Aircraft Maintenance Technology  3.0
AIRM 71  Aviation Maintenance Science  6.0
AIRM 72  Aviation Materials and Processes  1.5
AIRM 73  Aviation Welding  1.5
AIRM 90A  Airframe Maintenance Technology  3.0
AIRM 90B  Airframe Maintenance Technology  3.0
AIRM 91A  Airframe Maintenance Technology  3.0
AIRM 91B  Airframe Maintenance Technology  3.0
AIRM 92A  Airframe Maintenance Technology  3.0
AIRM 92B  Airframe Maintenance Technology  3.0
AIRM 93A  Airframe Maintenance Technology  3.0
AIRM 93B  Airframe Maintenance Technology  3.0
AIRM 94A  Aircraft Powerplant Maintenance Technology  3.0
AIRM 96A  Aircraft Powerplant Maintenance Technology  3.0
AIRM 96B  Aircraft Powerplant Maintenance Technology  3.0
AIRM 97A  Aircraft Powerplant Maintenance Technology  3.0
AIRM 97B  Aircraft Powerplant Maintenance Technology  3.0
AIRM 98A  Aircraft Powerplant Maintenance Technology  3.0
AIRM 98B  Aircraft Powerplant Maintenance Technology  3.0
Total Units 63.0

Recommended Electives:

AIRM 74  Aircraft Maintenance Technology - Work Experience
AIRM 80  Lab Studies in Aircraft Maintenance Technology
AIRM 81  Lab Studies in Aircraft Maintenance Technology
EDT 12  Technical Engineering Drawing II
ELEC 90  Survey of Electronics
MFG 70  Technical Mathematics - Manufacturing Applications
PHYS 1  Physics

Airframe and Aircraft Powerplant Maintenance Technology-Day

Aircraft Maintenance Tech & Manufacturing Dept.
Major S0911

This program prepares students to enter employment as a certified airframe and powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various airmframes and powerplants and their components. Completion of this program leads to an Associate of Science Degree. Two state-awarded certificates are also available upon successful completion of this program - one certificate in Airframe Maintenance Technology and one certificate in Aircraft Powerplant Maintenance Technology. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

This program offers a day (full-time) or evening (part-time) program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B. The evening program courses are offered in 9-week modules.

Successful completion of this program enables students to take the FAA examinations in Airframe, General, and Powerplant. Passing the General Exam plus the Airframe and/or Powerplant Exam provides certification as an Aircraft Maintenance Technician, which is required for employment in this field. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

AIRM 65A  Aircraft Powerplant Maintenance Technology  13.0 CSU
AIRM 65B  Aircraft Powerplant Maintenance Technology  13.0
AIRM 66A  Airframe Maintenance Technology  13.0 CSU
AIRM 66B  Airframe Maintenance Technology  13.0
AIRM 70A  Aircraft Maintenance Technology  3.0
AIRM 70B  Aircraft Maintenance Technology  3.0
AIRM 71  Aviation Maintenance Science  6.0
AIRM 72  Aviation Materials and Processes  1.5
AIRM 73  Aviation Welding  1.5
Total Units 67.0

Recommended Electives:

AIRM 74  Aircraft Maintenance Technology - Work Experience
AIRM 80  Lab Studies in Aircraft Maintenance Technology
EDT 12  Technical Engineering Drawing II
ELEC 90  Survey of Electronics
MFG 70  Technical Mathematics - Manufacturing Applications
PHYS 1  Physics
Programs Leading to an Associates Degree

**Architectural Technology**

**- Design Concentration**

**Architecture and Engineering Design Department**

**Major S0202**

This program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to the professional school of architecture. Two concentrations are available. The Design Concentration focuses upon studio-based design projects, drawing, and presentation skills. The student will develop a portfolio of work relevant to their Concentration. A certificate program is also available.

**Requirements for the Major**

**Required courses:**

- **ARCH 10** Design I - Elements of Design 3.0 CSU
- **ARCH 11** Architectural Drawing 3.0 CSU
- **ARCH 12** Architectural Materials and Specifications 3.0 CSU
- **ARCH 13** Architectural Illustration 3.0 CSU
- **ARCH 15** Basic CAD and Computer Application 4.0 CSU
- **ARCH 21** Design II - Architectural Design 3.0 CSU
- **ARCH 23** Architectural Presentations 3.0 CSU
- **ARCH 27** Design III - Environmental Design 3.0 CSU
- **ARCH 29** Design IV - Advanced Project 3.0 CSU
- **ARCH 31** World Architecture I 3.0 CSU
- **ARCH 32** World Architecture II 3.0 CSU
- **PLUS**
  - **Select one (1) course from:**
    - **ARCH 16** Architectural Working Drawings - I 3.0 CSU
    - **ARCH 18** Architectural Computer Aided Design Elements 3.0
- **PLUS**
  - **Select one (1) course from:**
    - **ARCH 14** Building and Zoning Codes 3.0
    - **ARCH 15** Architectural Working Drawings - I 3.0 CSU

**Animation**

**Commercial and Entertainment Arts**

**Major S1006**

The Animation Program offers an integrated/interdisciplinary approach to prepare students to meet current and future job market demands. The student will be given a balanced blend of art and technology-based skills which are essential for today’s careers in animation. The program offers both an A.S. Degree and certificates. Course content is driven by industry needs in order to provide the student with the best possible preparation for a career in animation or for transfer to an institution of higher learning.

**Requirements for the Major**

**Required courses:**

- **ANIM 101** Drawing - Gesture and Figure 3.0 CSU
- **ANIM 104** Drawing Fundamentals 3.0 CSU
- **ANIM 106** Character Development 1.5
- **ANIM 109** Advanced Principles of Animation
- **ANIM 115** Storyboarding 3.0
- **ANIM 116** Character Development 1.5
- **ANIM 119** Portfolio 1.5
- **ANIM 130** Introduction to 3-D Computer Animation 3.0
- **ARTD 17A** Drawing: Life 3.0 CSU
- **ARTD 18** Design: Two Dimensional 3.0 CSU
- **ARTD 22** Design: Three-Dimensional 3.0 CSU
- **PLUS**
  - **Select one (2) courses from:**
    - **ANIM 117** Animation Background Layout 3.0 CSU
    - **ANIM 120** Script Development 3.0
    - **ANIM 132** Modeling, Texture Mapping and Lighting 3.0
    - **ANIM 175** Web Animation With Flash 3.0
    - **ARTD 16** Drawing: Perspective 3.0 CSU
    - **ARTD 15A** Drawing: Beginning 3.0 CSU,UC
    - **ARTD 15B** Drawing: Beginning 3.0 CSU
    - **ARTD 15C** Drawing: Beginning 3.0 CSU
    - **ARTD 15D** Drawing: Beginning 3.0 CSU

**Total Units 36.0**

**Recommended Electives:**

- **AHIS 5** History of Western Art: Renaissance Through Modern
- **AHIS 6** History of Western Art: Renaissance Through Modern
- **ANIM 107** Figure in Motion
- **ANIM 109** Advanced Principles of Animation
- **ANIM 111** Animal Drawing

**English Language Skills:**

Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.
Programs Leading to an Associates Degree

ARCH 18 Architectural Computer Aided Design Elements 3.0
ARCH 26 Architectural CAD Working Drawings 3.0
ARCH 28 Architectural CAD 3.0 CSU
ARCH 89 Architectural Work Experience 1.0
ARCH 90 Architectural Work Experience 2.0
INSP 70 Elements of Construction 3.0 CSU Total Units 38.0 - 40.0

Recommended Electives:
ARTS 22 Design: Three-Dimensional
BIOI 6 Humans and the Environment
ENGL 1C Critical Thinking and Writing
MATH 150 Trigonometry
PHYS 2AG General Physics
ENGL 1C, MATH 150, and PHYS 2AG are typically required for transfer to a professional school of architecture. Verify all requirements with the transfer institution.

Architectural Technology - Technology Concentration

Major S0201

This program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to a professional school of architecture. Two concentrations are available. The Technology Concentration focuses upon building and construction technology, documentation, codes, and computer applications. Current technology and computer (CAD) skills are integrated into the program. A certificate program is also available.

Requirements for the Major

Required courses:

ARCH 16 Architectural Computer Aided Design Elements 3.0 CSU
ARCH 26 Architectural CAD Working Drawings 3.0
ARCH 28 Architectural CAD 3.0 CSU
ARCH 29 Architectural CAD 3-D Illustration and Animation 3.0 CSU
ARCH 29 Design IV - Advanced Project 3.0 CSU
ARCH 70 Technical Descriptive Geometry 3.0 CSU
ARCH 70 Elements of Construction 3.0 CSU
INSP 70 Construction Estimating 3.0 CSU

Total Units 38.0 - 40.0

Recommended Electives:

ARCH 13 Architectural Illustration 3.0 CSU
ARCH 21 Design II - Architectural Design 3.0 CSU
ARCH 23 Architectural Presentations 3.0 CSU
ARCH 31 World Architecture I 3.0 CSU
ARCH 32 World Architecture II 3.0 CSU
ARCH 89 Architectural Work Experience 1.0 - 2.0
EDT 26 Civil Engineering Technology and CAD 3.0 CSU
INSP 71 Construction Estimating 3.0 CSU

Total Units 38.0 - 40.0

Operations and Management

Major S0506

This program is intended to prepare students for employment following graduation. Students wishing a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

BUSM 7 Principles of Accounting - Financial 5.0 CSU
BUSM 10 Principles of Continuous Quality Improvement 3.0
BUSM 20 Principles of Business 3.0 CSU
BUSM 51 Principles of International Business 3.0 CSU
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0 CSU
BUSO 26 Oral Communications 3.0 CSU
BUSU 36 Principles of Marketing 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU
BUSM 50 Retail Store Management and Merchandising 3.0 CSU

Total Units 30.0

Recommended Electives:

BUSM 81 Work Experience in Business
BUSM 85 Special Issues in Business
BUSM 85 Special Issues in Marketing

Business: Retail Management

Accounting and Management Department

Major S0509

This program exposes students to the business world and the role of retail distribution. Students become familiar with careers in retail management as well as the latest trends in this fast changing field. Completion of this program aids the student's search for an entry-level job in retail management.

Requirements for the Major

Required courses:

BUSM 7 Principles of Accounting - Financial 5.0 CSU
BUSM 11 Fundamentals of Accounting 3.0
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
BUSO 26 Oral Communications 3.0 CSU
BUSU 36 Principles of Marketing 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU
FASH 62 Retail Store Management and Merchandising 3.0 CSU

Total Units 33.0

Chemical Laboratory Technician

Biological Sciences Department

Major S0950

This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and trouble-shooting of experimental designs and outcomes.

Requirements for the Major

Required courses:

BUSA 11 Fundamentals of Accounting 3.0
BUSA 26 Oral Communications 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU

Total Units 30.0

Business: Retail Management

Accounting and Management Department

Major S0509

This program exposes students to the business world and the role of retail distribution. Students become familiar with careers in retail management as well as the latest trends in this fast changing field. Completion of this program aids the student's search for an entry-level job in retail management.

Requirements for the Major

Required courses:

BUSM 7 Principles of Accounting - Financial 5.0 CSU
BUSM 11 Fundamentals of Accounting 3.0
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
BUSO 26 Oral Communications 3.0 CSU
BUSU 36 Principles of Marketing 3.0 CSU
CISB 15 Microcomputer Applications 4.0 CSU
FASH 62 Retail Store Management and Merchandising 3.0 CSU

Total Units 33.0

Chemical Laboratory Technician

Biological Sciences Department

Major S0950

This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and trouble-shooting of experimental designs and outcomes.

Requirements for the Major

Required courses:

BUSA 11 Fundamentals of Accounting 3.0
BUSA 26 Oral Communications 3.0 CSU
Programs Leading to an Associates Degree

Child Development

Major S1315

This program introduces students to the study of young children and their education and prepares students for employment following graduation in the field of Child Development. An Associate of Science Degree and eleven certificates are offered. Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Core Courses:

- CHLD 66 Early Childhood Observation 2.0 CU
- CHLD 68 Early Childhood Observation Laboratory 1.0 CU
- CHLD 67 Early Childhood Development Progression 2.0 CU
- CHLD 67L Early Childhood Development Observation Laboratory 1.0 CU
- CHLD 68 Children With Special Needs 3.0 CU
- CHLD 69 Early Childhood Development Field/Work Seminar 2.0 CU
- CHLD 84 Guidance and Discipline in Child Development Settings 1.0 CU
- CHLD 91 Early Childhood Development Field Work 1.0 CU
- Total Units 28.0

Note: These courses are acceptable for the Child Development requirements leading to the Child Development Permit.

Recommended Electives:

- CHLD 50 Multicultural Education: Anti-Bias Perspective 4.0 CU
- CHLD 51 Early Literacy in Child Development 3.0 CU
- CHLD 61 Language Arts & Art Media for Young Children 3.0 CU
- CHLD 62 Music and Motor Development for Young Children 3.0 CU
- CHLD 63 Creative Science and Math for Young Children 3.0 CU
- CHLD 71A Administration of Child Development Programs 3.0 CU
- CHLD 71B Management/Marketing/Personnel for ECD Programs 3.0 CU
- CHLD 72 Teacher, Parent, and Child Relationships 3.0 CU
- CHLD 73 Infant/Toddler Care and Development 3.0 CU

Commercial Flight

Aeronautics, Transportation, and Travel Department

Major S0912

The Commercial Flight curriculum prepares students for careers in aviation careers as aviation pilots, as well as related ground occupations in aviation. Students have the opportunity for optional flight training with a commercial pilot certificate and instrument rating simultaneously with the A.S. Degree. Concurrent flight training, students may achieve the commercial pilot certificate and instrument rating simultaneously with the A.S. Degree.

Requirements for the Major

Core Courses:

- AERO 23 Primary Pilot Ground School 4.0 CU
- AERO 24 Navigation 3.0 CU
- AERO 25 Commercial Pilot Ground School 3.0 CU
- AERO 26 Aviation Weather 3.0 CU
- AERO 27 Aviation Safety 3.0 CU
- AERO 28 Aircraft and Engines 3.0 CU
- AERO 29 Federal Aviation Regulations 2.0 CU
- AERO 30 Instrument Ground School 3.0 CU
- AERO 17 Air Transportation 3.0 CU
- Total Units 27.0

Recommended Electives:

- AERO 40 Flight 4.0 CU
- AERO 40L Flight Laboratory 4.0 CU
- AERO 41 Basic Flight Simulator Laboratory 4.0 CU
- AERO 58 Flight Instructor Ground School 4.0 CU
- AIRT 41 Aircraft Recognition and Performance 4.0 CU
- CISD 11 Computer Information Systems 4.0 CU

The Commercial Flight faculty recommends that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of commercial flight to help them determine which electives would best suit their career plans.

Computer - Database Management Systems

Computer Information Systems Department

Major S0706

The Computer Information Systems major is a two-year program leading to the Associate of Science (A.S.) Degree. The program is designed to prepare students for employment in the field of information technology. Students wishing a Bachelor’s Degree should consult with a counselor or advisor to discuss transferability of courses.

Coursework includes a list of core courses and additional courses for each concentration. The Database Management Systems Concentration includes coursework in the design, implementation, and management of relational databases. Students choosing this concentration have the option of selecting either the Microsoft or Oracle concentration.

Computer Graphics Design/Photography

Commercial and Entertainment Arts

Major S1005

This program is designed to prepare students for employment in the field of computer graphics/photoshop. A variety of career opportunities are available in art, communications, industrial arts, photography, and journalism. Students desiring a Bachelor’s degree should consult with a counselor or advisor or the catalog of the institution they wish to attend to address transferability of courses.

Requirements for the Major

Core Courses:

- GRAP 1 Computer Graphics Lab 1.0 CU
- GRAP 10 Photo Editing with Photoshop 3.0 CU
- GRAP 12 Advanced Photo Editing with Photoshop 3.0 CU

Programs Leading to an Associates Degree (continued)
PROGRAMS LEADING TO AN ASSOCIATES DEGREE

PROGRAMS LEADING TO AN ASSOCIATES DEGREE

Requirements for the Major

Required courses:

- CISN 11 Telecommunications/Networking Fundamentals 4.0 CSU
- CISN 24 Microsoft NT Network System Administration 4.0 CSU
- CISN 51 Cisco CCNA Networking Fundamentals and Routing 4.0 CSU
- CISS 21 Network Vulnerabilities and Countermeasures 4.0 CSU
- CISS 23 Network Analysis and NIDS 4.0 CSU
- CISS 25 Network Security and Firewalls 4.0 CSU
- SL 2 Linked Service Learning 1.0 CSU

PLUS

Select one (1) course from:

- CISN 11 Computer Information Systems 3.5 CSU,UC
- CISN 21 Windows Operating System 4.0 CSU
- CISN 31 Linux Operating System 4.0 CSU
- CISN 34 LINUX Networking and Security 4.0 CSU
- CISN 41 Novell Netware Systems 4.0 CSU

Total Units 28.5 - 29.0

Computer Programming Computer Information Systems Department Major S0709

The Computer Programming major is a two-year program leading to the Associate in Science (A.S.) Degree. It is designed to prepare students for employment as a computer programmer following graduation. Students desiring a Bachelor's Degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses.

Course work includes a list of core courses and additional courses for each concentration. The Computer Programming degree emphasizes the development of applications in a business environment using object-oriented methodologies. Students may select one of four programming language concentrations: C++, Visual Basic, Java or C#.

Requirements for the Major

Required courses:

- CISN 11 Computer Information Systems 3.5 CSU,UC
- CISN 15 Microcomputer Applications 4.0 CSU
- CISN 11 Systems Analysis and Design 3.5 CSU,UC
- CISN 21 Windows Operating System 4.0
- CISN 31 Linux Operating System 4.0

Total Units 28.0 - 29.0

Construction Inspection Architecture and Engineering Design Department Major S0920

This program is intended to prepare students for employment following graduation. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

- ARCH 12 Architectural Materials and Specifications 3.0 CSU
- ARCH 14 Building and Zoning Codes 3.0
- INS 17 Legal Aspects of Construction 3.0 CSU
- INS 70 Elements of Construction 3.0 CSU
- INS 71 Construction Estimating 3.0 CSU

Total Units 32.0 - 34.0

Computer Network Administration and Security Management Computer Information Systems Department Major S0701

Computer Network Administration and Security Management is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computing/ information technology field in such areas as network administrator and security management administrator.

The curriculum is designed to help students develop skills to design, administer and manage the heterogeneous corporate network with security emphasis. The courses examine and illustrate network security with various industry-leading network operating systems. Individual courses will assist students in preparing for related industry certification exams.

The main objective of the degree is to prepare students for employment following graduation. Students desiring a Bachelor's Degree should meet with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

- ELEC 56 Digital Electronics 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 74 Microprocessor Systems 3.0 CSU
- ELEC 51 Microcomputer Applications 4.0 CSU
- ELEC 52 Electronic Circuits (DI) 4.0 CSU
- ELEC 53 Digital Electronics 4.0
- TECH 60 Customer Relations for the Technician 1.0
- CISN 11 Computer Information Systems 3.5 CSU,UC
- CISN 21 Windows Operating System 4.0 CSU
- CISN 30 Programming in C++ 4.0
- CISN 31 Linux Operating System 4.0 CSU
- CISN 51 Cisco CCNA Networking Fundamentals and Routing 4.0 CSU
- CISS 21 Network Vulnerabilities and Countermeasures 4.0 CSU
- CISS 23 Network Analysis and NIDS 4.0 CSU
- CISS 25 Network Security and Firewalls 4.0 CSU
- SL 2 Linked Service Learning 1.0 CSU

Total Units 44.0 - 45.0

Recommended Electives:

- ELEC 51 Microcomputer Electronics
- ELEC 74 Microprocessor Systems

Recommended Electives:

- AHS 1 Understanding the Visual Arts
- ARTB 1 Understanding the Visual Arts
- COMP 10 Operating the Macintosh Computer
- GRAP 24 Work Experience in Computer Graphics
- PHOT 1 Laboratory Studies: Black and White Photography
- PHOT 2 Laboratory Studies: Color Photography
- PHOT 4 Digital Cameras and Composition
- PHOT 15 History of Photography
Recommended Electives:

| CORS 30 | Ethnic Relations in Corrections | 3.0 |
| CORS 20 | Correctional Law | 3.0 |
| CORS 15 | Control and Supervision of the Offender | 3.0 |
| CORS 20 | Correctional Law | 3.0 |
| CORS 25 | Probation and Parole | 3.0 |
| CORS 30 | Ethnic Relations in Corrections | 3.0 |

PLUS

Select four (4) courses from:

| ADU 68 | Administration of Justice | 3.0 |
| ADU 20 | Principles of Investigation | 3.0 |
| ADU 38 | Narcotics Investigation | 3.0 |
| ADU 59 | Gangs in the Community/ Corrections | 3.0 |
| CORS 35 | Interviewing and Counseling in Corrections | 3.0 |
| CORS 40 | Crime and Delinquency | 3.0 |
| CORS 45 | The Violent Offender | 3.0 |
| Total Units | 18.0 |

Recommended Electives:

| PE-F 50 | Physical Skills Preparation for Law Enforcement and Fire Science | 3.0 |
| PE-F 51 | Agility Testing Preparation for Law Enforcement and Fire Science | 3.0 |
| PE-F 52 | Fitness and Conditioning for Law Enforcement, Fire Science and Forestry | 3.0 |
| SPAN 66 | Spanish for Fire and Police Personnel | 3.0 |

The Correctional Sciences faculty recommends that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of Correctional Sciences to help them determine which electives would best suit their career plans.

Educational Paraprofessional

Psychology and Education Department

Major S2117

This degree program in the field of education prepares paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning development. Graduates will be able to assist classroom teachers in working with K-12 students, including students with special needs. This associate degree certifies that paraprofessionals are "highly qualified" according to current federal legislation.

Requirements for the Major

Required courses:

| CHLD 1 | Child, Family and Community | 3.0 |
| CHLD 10 | Child Growth and Development | 3.0 |
| PSYC 14 | Developmental Psychology | 3.0 |
| CHLD 68 | Children With Special Needs | 3.0 |
| EDUC 10 | Introduction to Education | 3.0 |
| EDUC 15 | Aspects and Issues in Teaching Service Learning | 3.0 |
| ENGL 1A | Freshman Composition | 3.0 |
| MATH 71 | Intermediate Algebra | 5.0 |
| Total Units | 23.0 |

Recommended Electives:

| CHILD 51 | Early Literacy in Child Development | 3.0 |
| CHLD 64 | Health, Safety and Nutrition of Young Children | 3.0 |
| LIT 40 | Children’s Literature | 3.0 |
| PE 3 | First Aid and CPR | 3.0 |
| ELEC 40 | Crime and Delinquency | 3.0 |
| ELEC 45 | The Violent Offender | 3.0 |
| Total Units | 30.0 |

Electronics and Computer Engineering Technology

Electronics and Computer Technology Department

Major S0906

This curriculum starts with basic electronic components and circuitry, culminates with course work in electronic systems, and is characterized by advanced coursework in three major areas. These include microprocessors and interfacing, electronic communications, and industrial electronic controls. Students completing the program will have training in all the major areas of electronics and will possess ample skills to make them versatile employees. Nearly all labs have new, state-of-the-art equipment to provide the student with quality hands-on learning experiences.

This program is intended to prepare students for employment in electronic industries or for transfer into electronic and computer engineering technology or industrial technology programs at various universities in the CSU system. Many of the courses directly articulate to courses offered at the CSUs. Typical technician job classifications this program covers include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronics technician.

Three certificate programs are also available: an 8-10 unit certificate in Electronics Assembly and Fabrication, a one-year certificate in Electronics Technology, and a two-year certificate with the same title as the A.S. Degree. All students completing an Electronic A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License; and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

Requirements for the Major

Required courses:

| ELEC 11 | Technical Applications in Microcomputers | 3.0 |
| ELEC 12 | Computer Simulation and Troubleshooting | 2.0 |
| ELEC 50A | Electronic Circuits (DC) | 4.0 |
| ELEC 50B | Electronic Circuits (AC) | 4.0 |
| ELEC 51 | Electronic Devices | 4.0 |
| ELEC 53 | Communications Circuits | 4.0 |
| ELEC 54A | Industrial Electronics | 4.0 |
| ELEC 54B | Industrial Electronic Systems | 3.0 |
| ELEC 55 | Microwave Communications | 4.0 |
| ELEC 36 | Digital Electronics | 4.0 |
| ELEC 61 | Electronic Assembly and Fabrication | 2.0 |
| ELEC 74 | Microprocessor Systems | 4.0 |
| TECH 60 | Customer Relations for the Technician | 1.0 |
| Total Units | 43.0 |

Recommended Electives:

| CISP 11 | Programming in Visual Basic | 3.0 |
| EDT 11 | Technical Engineering Drawing I | 3.0 |
| ELEC 62 | Advanced Surface Mount Assembly and Rework | 3.0 |
| ELEC 76 | Radio Telephone Communications | 3.0 |
| PHYS 2AG | General Physics | 3.0 |

Emergency Medical Services

Medical Services Department

Major S1210

Students who complete the required courses listed below for the Emergency Medical Technician-Paramedic (EMT-P) Certificate and who also complete the graduation requirements of Mt. San Antonio College will be awarded the Associate of Science Degree in Emergency Medical Services. This Paramedic Program is accredited by CAHHEP (Committee on Accreditation of Allied Health Education Programs) and approved by the Los Angeles County Department of Health Services as meeting and exceeding the minimum standards as specified in Title 22 of the California Code of Regulations and the federal Department of Transportation national standard curriculum. It is designed to train paramedics to work on ambulances and in the fire service.

Requirements for the Major

Required courses:

| EMS 1 | Fundamentals for Paramedics | 4.0 |
| EMS 10 | Anatomy and Physiology for Paramedics | 2.0 |
| EMS 20 | Emergency Cardiac Care for Paramedics | 1.0 |
| EMS 30 | Pharmacology for Paramedics | 2.0 |
| EMS 40 | Cardiology for Paramedics | 5.0 |
| EMS 50 | Paramedic Skills Competency | 4.5 |
| EMS 60 | EMS Theory for Paramedics | 8.5 |
| EMS 70 | Paramedic Clinical Internship | 3.5 |
| EMS 80 | Paramedic Field Internship | 8.5 |
| Total Units | 39.0 |
## Programs Leading to an Associates Degree

### Recommended Electives:

- **AJDI 1** The Administration of Justice System
- **FIRE 1** Fire Protection Organization
- **PSC 1A** Introduction to Psychology
- **SOC 1** Sociology

The Emergency Medical Services faculty recommend that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of Emergency Medical Services to help them determine which electives would best suit their career plans.

### Special Information

To remain in the program, students must maintain a grade of "C" (80%) or better in all courses, per state regulations. Before starting clinical rotations, students must pass a criminal background check.

Upon successful completion of the required courses, students are granted a certificate documenting completion of the Paramedic Program. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

### Application Requirements and Entrance Procedures

**Application Requirements:**

In addition to meeting Mt. San Antonio College academic standards for admission, applicants must be in good standing and satisfy the following requirements:

1. Be an EMT-I, currently certified in California.
2. Submit a letter on official stationery from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last two years.
3. File a college application and be accepted as a student at Mt. San Antonio College.
4. Submit an application for the Paramedic Program to the Technology and Health Division Office (909)594-5611, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. The Paramedic Program begins three times per year, in August, January, and May and runs for 29 weeks.
5. Take the AWE (Assessment of Written English), the Mt. SAC Math Placement test, and the Degrees of Reading Power reading test at least ten working days before the state of the pre-course (EMS 1). Placement examinations will be individually assessed to determine eligibility. The placement test is administered by the Assessment Center, located in the Student Services Center. If required, arrange with the Center a day and a time to take the examination. The Assessment Center (909)594-5611 Ext. 4265 is open Monday through Friday.

7. Forward two original transcripts of all coursework completed (high school, EMT-I, Fire Science, and other than Mt. San Antonio College courses.) One transcript must be sent to the Technology and Health Division Office, the other to the Admissions and Records Office.

**NOTE:** If the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Indicate in the mailing address the program for which transcripts are being sent to the Technology and Health Division Office.

**EXAMPLE:** Mt. San Antonio College Technology and Health Division Paramedic Program 1100 North Grand Avenue Walnut, CA 91789-1399

8. A physical examination, proof of certain immunizations, and a criminal background check are required of all candidates after acceptance to the program and before entrance into the clinical setting. Forms and information will be provided upon acceptance into the program. In addition, drug testing may be required as part of the physical examination and/or requested by the college or one of its agents.

**Entrance Procedure:**

In determining eligibility, consideration will be given to the following:

1. Completion of all admission requirements
2. EMS-related experience
3. Scores on the English assessment and math placement tests
4. Placement EMS-1, Fundamentals for Paramedics, and scores on college placement exam for English and math.
   All Applicants are required to meet the essential functions for success in the Paramedic Program.

**Physical Demands:**

- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
- Possess the ability for extremely heavy effort (lift and carry at least 125 pounds)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

**Sensory Demands:**

- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices)
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

**Working Environment:**

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposed to products containing latex

**English Language Skills:**

Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

### Recommended Electives:

- **EDT 89** Engineering Design Technology Work Experience
- **ENGR 8** Properties of Materials

### Engineering Design Technology

#### Architecture and Engineering Design Department

**Major 50913**

This curriculum is recommended for those who wish to become an engineering technician, CAD (computer-aided design) operator/drafter or drafter in fields related to engineering, tool design, electronics, manufacturing, structural steel, civil, piping, aerospace, 3-D modeling, illustration, and computer animation. It provides fundamental knowledge of manufacturing processes as they relate to design problems and the techniques required by industry for design, presentation, detail, and assembly working drawings.

This program is intended to prepare students for employment following completion of courses or for retraining and upgrading skills. This program also offers transfer opportunities in related majors. Students desiring a Bachelor's Degree (transfer program) should consult with department faculty and a counselor or advisor to develop an individualized plan of transferable courses and math requirements.

#### Requirements for the Major

**Required courses:**

- **EDT 11** Technical Engineering Drawing I 3.0 CSU
- **EDT 12** Technical Engineering Drawing II 3.0 CSU
- **EDT 14** Mechanical Design 3.0 CSU
- **EDT 16** Basic CAD and Computer Applications 4.0 CSU
- **EDT 18** Engineering CAD Applications 4.0 CSU
- **EDT 20** Technical Descriptive Geometry 3.0 CSU
- **EDT 24** Engineering CAD 3-D Solids and Surfaces 3.0 CSU
- **EDT 26** Civil Engineering Technology and CAD 3.0 CSU
- **EDT 28** Engineering CAD 3-D Illustration/Animation 3.0 CSU
- **ELEC 50A** Electronic Circuits (DC) 4.0 CSU
- **ELEC 50B** Electronic Circuits (AC) 4.0 CSU
- **MFG 11** Manufacturing Processes I 2.0 CSU

**Total Units** 39.0

- **EDT**
- **ELEC**
- **MFG**
- **Total Units**

- **Course Descriptions:**

  - **EDT 11** Technical Engineering Drawing I: This course introduces basic concepts in technical drafting, including orthographic projection, sectioning, dimensioning, and symbols. Emphasis is placed on the development of spatial reasoning and visualization skills.
  - **EDT 12** Technical Engineering Drawing II: Continuation of EDT 11 with advanced topics in engineering drawing, including orthographic projection and sectioning of complex objects. This course also covers the fundamentals of computer-aided drafting (CAD) through the use of AutoCAD.
  - **EDT 14** Mechanical Design: This course covers the principles and techniques of mechanical design, including the selection of materials, strength of materials, and design for manufacturability.
  - **EDT 16** Basic CAD and Computer Applications: Introduces students to the use of basic computer-aided design (CAD) software, focusing on the creation and manipulation of two-dimensional drawings.
  - **EDT 18** Engineering CAD Applications: Continuation of EDT 16 with advanced applications of CAD software, including 3-D modeling and animation.
  - **EDT 20** Technical Descriptive Geometry: Covers the fundamentals of descriptive geometry, including the representation of three-dimensional objects in two dimensions.
  - **EDT 24** Engineering CAD 3-D Solids and Surfaces: Advanced study of 3-D CAD software, including the creation of complex models and the use of surface modeling techniques.
  - **EDT 26** Civil Engineering Technology and CAD: Focuses on the application of CAD in civil engineering projects, including site development, infrastructure design, and structural analysis.
  - **EDT 28** Engineering CAD 3-D Illustration/Animation: Advanced applications of 3-D CAD software for the creation of illustrations and animations, with an emphasis on realistic rendering.
  - **ELEC 50A** Electronic Circuits (DC): Introduces the fundamentals of electronic circuit analysis, focusing on DC circuits and the behavior of linear and nonlinear components.
  - **ELEC 50B** Electronic Circuits (AC): Continuation of ELEC 50A with advanced topics in AC circuit analysis, including the behavior of AC sources and the analysis of interactive circuits.
  - **MFG 11** Manufacturing Processes I: Covers the fundamental processes used in manufacturing, including casting, forging, machining, and welding.

- **Total Units:** 39.0

- **Program Requirements:**

- **Course Requirements:**

  - **EDT**
  - **ELEC**
  - **MFG**
  - **Total Units**: 39.0

- **Prerequisites:**

  - None

- **Corequisites:**

  - None

- **Requisites:**

  - None

- **Corequisites:**

  - None
### Equipment Technology
#### Agricultural Sciences Department
**Major S0118**

The courses in equipment technology are designed to enable students to prepare for a career in this essential and diverse profession. This degree is part of our comprehensive Agricultural Sciences program. Our program is unique in that most courses provide hands-on experience and are designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

This program is intended to prepare students to become technicians for entry level positions or skills enhancement in the operation, service, maintenance and repair of industrial and agricultural power equipment.

Listed below are the courses needed to satisfy major requirements. It is recommended that students consult with the department chairperson, counselor or advisor to file an educational plan. For additional information, call the Agricultural Sciences Department, ext. 4540 or visit the Mt. SAC Web site at www.mtdac.edu/instruction/sciences/agriculture.

**Requirements for the Major**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAG 1 Food Production, Land Use</td>
<td>3.0 CSU,UC and Politics - A Global Perspective</td>
</tr>
<tr>
<td>AGAG 59 Work Experience in Agriculture</td>
<td>1.0 - 4.0</td>
</tr>
<tr>
<td>AGOR 51 Tractor and Landscape Equipment Operations</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 52 Hydraulics</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 53 Small Engine Repair I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 54 Small Engine Repair II</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 55 Diesel Engine Repair</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 56 Engine Diagnostics</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 57 Power Train Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 71 Landscape Construction Fundamentals</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 72 Landscape Hardscape Applications</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>CSB 15 Microcomputer Applications</td>
<td>4.0 CSU,UC</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>35.0 - 38.0</strong></td>
</tr>
</tbody>
</table>

### Escrow Management
#### Business Administration Department
**Major S0511**

This program is intended to prepare students for employment following graduation. Students wishing a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**

- BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSH 20 Principles of Business 3.0 CSU,UC
- BUSH 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSO 25 Business Communications 3.0 CSU
- BUSR 50 Real Estate Principles 3.0 CSU
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 53 Real Estate Finance 3.0
- BUSR 76 Escrow Procedures I 3.0
- BUSR 77 Escrow Procedures II 3.0
- CISP 15 Microcomputer Applications 4.0 CSU,UC
- COMP 1 Computer Keyboarding 4.0 CSU

**Total Units** 40.0

**Recommended Electives:**

- BUSA 8 Principles of Accounting - Managerial
- BUSL 18 Business Law
- BUSL 18H Business Law - Honors
- BUSM 62 Human Resource Management
- BUSO 5 Business English
- BUSO 7 Business Communications
- BUSR 50 Real Estate Principles
- BUSR 51 Legal Aspects of Real Estate
- BUSR 53 Real Estate Finance
- BUSR 76 Escrow Procedures I
- BUSR 77 Escrow Procedures II
- CISP 15 Microcomputer Applications
- COMP 1 Computer Keyboarding

**Total Units** 20.0

### Family and Consumer Sciences
#### Consumer Science and Design Technologies
**Major S1309**

This program provides students with the basic skills associated with the field of family and consumer sciences, which includes the needs of the home, the family, and its individual members. Students wishing a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**

- CHLD 10 Child Growth and Development 3.0 CSU,UC
- CHLD 10H Child Growth and Development - Honors 3.0 CSU,UC
- FASH 10 Clothing Fundamentals 3.0 CSU
- FASH 15 Fashion Strategies 3.0 CSU
- FASH 17 Textiles 3.0 CSU,UC
- FCS 41 Life Management 3.0 CSU
- FCS 80 Financial Planning 3.0 CSU
- BUSA 71 Financial Planning 3.0 CSU
- ID 100 Fundamentals of Interior Design 3.0 CSU
- NF 20 Principles of Foods With Lab 3.0
- NF 62 Meal Management 3.0 CSU
- NF 25 Essentials of Nutrition 3.0 CSU
- NF 25H Essentials of Nutrition - Honors 3.0 CSU,UC
- NF 28 Cultural and Ethnic Foods 3.0 CSU,UC

**Total Units** 35.0

**Recommended Electives:**

- CHLD 11 Child, Family and Community
- FASH 12 Advanced Clothing
- ID 105 Interior Design Studio I
- ID 130 Applied Color and Design Theory

### Fashion Design
#### Consumer Science and Design Technologies
**Major S1320**

Exciting employment opportunities are available in both fashion design and costume design. In Southern California, the apparel industry and the entertainment industry support the largest number of employees and contribute significantly to the economy of the region. Expand your creative talents with this challenging major and find a career of your dreams. Students desiring a Bachelor's Degree should consult with a counselor or advisor and the transfer institution.

**Requirements for the Major**

**Required courses:**

- FASH 8 Introduction to Fashion 3.0 CSU
- FASH 9 History of Costume and Fashion 3.0 CSU
- FASH 10 Clothing Construction I 3.0 CSU
- FASH 12 Clothing Construction II 3.0 CSU
- FASH 15 Fashion Strategies 3.0 CSU
- FASH 17 Textiles 3.0 CSU,UC
- FASH 20 Illustration for Fashion and Costume Design 3.0
- FASH 21 Patternmaking I 3.0 CSU
- FASH 22 Fashion Design By Draping 3.0
- FASH 23 Patternmaking II 3.0
- FASH 30 Fashion Design and Product Development I 3.0
- FASH 31 Fashion Design and Product Development II 3.0
- FASH 32 Fashion Design and Product Development III 3.0

**Total Units** 39.0

**Recommended Electives:**

- FASH 26 Fashion Computer Assisted Design
- FASH 81 Work Experience in Fashion
- FASH 90 Field Studies
- FASH 91 Field Studies - New York
- FASH 92 Field Studies - Fashion Capsules
- FCS 41 Life Management
- FASH 90, FASH 91, and FASH 92 may be taken two times for credit.
## Programs Leading to an Associates Degree

### Fashion Merchandising

**Consumer Science and Design Technologies**  
**Major S1308**

This program is intended to prepare students for employment in the fashion industry. A variety of career opportunities are available in retail merchandising, manufacturing, fashion, promotion, and self-employment. Students intending to pursue a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

#### Requirements for the Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 9</td>
<td>History of Costume and Fashion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 15</td>
<td>Fashion Strategies</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 62</td>
<td>Retail Store Management and Merchandising</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 63</td>
<td>Advertising and Promotion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 66</td>
<td>Visual Merchandising Display</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units: 27.0**

#### Recommended Electives:

- BUSS 36 Principles of Marketing
- FASH 25 Fashion Computer - Assisted Drawing
- FASH 90 Field Studies
- FASH 91 Field Studies - New York
- FASH 92 Field Studies - Fashion Capitals
- FCS 41 Life Management
- FCS 91 Work Experience in Family and Consumer Sciences

FASH 90, FASH 91 and FASH 92 may be taken two times for credit.

### Fire Technology

**Fire Technology Department**  
**Major S2105**

The Fire Science major has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

#### Requirements for the Major

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 1</td>
<td>Fire Protection Organization</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 4</td>
<td>Building Construction for Fire Protection</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
<td>3.0</td>
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</tbody>
</table>

**PLUS**

Select two (2) course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 90</td>
<td>Emergency Medical Technician I</td>
<td>10.0</td>
</tr>
<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 9</td>
<td>Fire Hydraulics</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 11</td>
<td>Fire Apparatus and Equipment</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 12</td>
<td>Wildland Fire Control</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>FIRE 86</td>
<td>Basic Fire Academy</td>
<td>12.0</td>
</tr>
<tr>
<td>PE-F 53</td>
<td>Physical Training for the Basic Fire Academy</td>
<td>2.5 CSU</td>
</tr>
</tbody>
</table>

**Total Units: 23.5 – 40.0**

**Recommended Electives:**

- FIRE 20 Fire Instructor 1A
- FIRE 21 Fire Instructor 1B
- FIRE 30 Fire Management 1
- FIRE 40 Fire Prevention 1A
- FIRE 41 Fire Prevention 1B
- FIRE 50 Fire Command 1A
- FIRE 51 Fire Command 1B
- FIRE 60 Fire Investigation 1A
- FIRE 61 Fire Investigation 1B
- PE-F 50 Physical Skills Preparation for Administration of Justice and Fire Technology
- PE-F 51 Agility Testing Preparation for Administration of Justice and Fire Technology
- PE-F 52 Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry

**SPAN 66** Spanish for Fire and Police Personnel

### Fire Technology - Administrative Communications

**Fire Technology Department**  
**Major S2107**

The Fire Science major has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

#### Requirements for the Major

**Required courses:**

- BUSA 7 Principles of Accounting | 5.0 CSU/UC - Financial
- CSIS 11 Computer Information Systems | 3.5 CSU/UC
- FIRE 1 Fire Protection Organization | 3.0 CSU
- FIRE 8 Fire Company Organization and Management | 3.0 CSU
- FIRE 20 Fire Instructor 1A | 2.0
- FIRE 21 Fire Instructor 1B | 2.0

**Total Units: 18.5**

**Recommended Electives:**

- FIRE 2 Fire Prevention Technology
- FIRE 30 Fire Management 1
- FIRE 40 Fire Prevention 1A
- FIRE 41 Fire Prevention 1B
- SPAN 66 Spanish for Fire and Police Personnel

### Fire Technology - Administrative Law

**Fire Technology Department**  
**Major S2108**

The Fire Science major has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

#### Requirements for the Major

**Required courses:**

- BUSA 7 Principles of Accounting | 5.0 CSU/UC - Financial
- CSIS 11 Computer Information Systems | 3.5 CSU/UC
- FIRE 1 Fire Protection Organization | 3.0 CSU
- FIRE 2 Fire Prevention Technology | 3.0 CSU

**Total Units: 18.5**

**Recommended Electives:**

- FIRE 2 Fire Prevention Technology
- FIRE 30 Fire Management 1
- FIRE 40 Fire Prevention 1A
- FIRE 41 Fire Prevention 1B
- SPAN 66 Spanish for Fire and Police Personnel
Fire Technology - Fire Management
Fire Technology Department
Major S2109
The Fire Science major has been developed to offer pre-
employment education for the undergraduate who
wishes to enter the field of fire science. It also provides
employment education for the undergraduate who
desires to enter the field of fire science. It also provides
the employed firefighter an opportunity for a professional
education. Students intending to pursue a Bachelor’s
Degree (transfer program) should consult with a
counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
- FIRE 1 Fire Protection Organization 3.0 CSU
- FIRE 2 Fire Prevention Technology 3.0 CSU
- FIRE 3 Fire Protection Equipment and Systems 3.0 CSU
- FIRE 4 Building Construction for Fire Protection 3.0 CSU
- FIRE 5 Fire Behavior and Combustion 3.0 CSU
- FIRE 6 Hazardous Materials/ICS 3.0

PLUS
- FIRE 7 Fire Fighting Tactics and Strategy 3.0 CSU
- FIRE 8 Fire Company Organization and Management 3.0 CSU
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0
- FIRE 30 Fire Management 1 2.0
- FIRE 50 Fire Command 1A 2.0

Total Units 35.0

Recommended Electives:
- EMT 90 Emergency Medical Technician I
- PE-F 50 Physical Skills Preparation for Law Enforcement and Fire Science
- PE-F 51 Agility Testing Preparation for Law Enforcement and Fire Science
- PE-F 52 Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
- SPAN 66 Spanish for Fire and Police Personnel

Fire Technology - Fire Prevention
Fire Technology Department
Major S2110
The Fire Science major has been developed to offer pre-
employment education for the undergraduate who
wishes to enter the field of fire science. It also provides
the employed firefighter an opportunity for a professional
education. Students intending to pursue a Bachelor’s
Degree (transfer program) should consult with a
counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
- FIRE 1 Fire Protection Organization 3.0 CSU
- FIRE 2 Fire Prevention Technology 3.0 CSU
- FIRE 3 Fire Protection Equipment and Systems 3.0 CSU
- FIRE 4 Building Construction for Fire Protection 3.0 CSU
- FIRE 5 Fire Behavior and Combustion 3.0 CSU
- FIRE 6 Hazardous Materials/ICS 3.0
- FIRE 7 Fire Fighting Tactics and Strategy 3.0 CSU
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0
- FIRE 22 Fire Instructor 2a 2.0
- FIRE 23 Fire Instructor 2b 2.0
- FIRE 24 Fire Instructor 2c 2.0
- FIRE 30 Fire Management 1 2.0

Total Units 33.0

Recommended Electives:
- EMT 90 Emergency Medical Technician I
- PE-F 50 Physical Skills Preparation for Law Enforcement and Fire Science
- PE-F 51 Agility Testing Preparation for Law Enforcement and Fire Science
- PE-F 52 Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
- SPAN 66 Spanish for Fire and Police Personnel

Fire Technology - Fire Training
Fire Technology Department
Major S2111
The Fire Science major has been developed to offer pre-
employment education for the undergraduate who
wishes to enter the field of fire science. It also provides
the employed firefighter an opportunity for a professional
education. Students intending to pursue a Bachelor’s
Degree (transfer program) should consult with a
counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
- FIRE 1 Fire Protection Organization 3.0 CSU
- FIRE 2 Fire Prevention Technology 3.0 CSU
- FIRE 3 Fire Protection Equipment and Systems 3.0 CSU
- FIRE 4 Building Construction for Fire Protection 3.0 CSU
- FIRE 5 Fire Behavior and Combustion 3.0 CSU
- FIRE 6 Hazardous Materials/ICS 3.0
- FIRE 7 Fire Fighting Tactics and Strategy 3.0 CSU
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0
- FIRE 22 Fire Instructor 2a 2.0
- FIRE 23 Fire Instructor 2b 2.0
- FIRE 24 Fire Instructor 2c 2.0
- FIRE 30 Fire Management 1 2.0

Total Units 33.0

Recommended Electives:
- EMT 90 Emergency Medical Technician I
- PE-F 50 Physical Skills Preparation for Law Enforcement and Fire Science
- PE-F 51 Agility Testing Preparation for Law Enforcement and Fire Science
- PE-F 52 Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
- SPAN 66 Spanish for Fire and Police Personnel

Fire Technology - Private Fire Service
Fire Technology Department
Major S2112
The Fire Science major has been developed to offer pre-
employment education for the undergraduate who
wishes to enter the field of fire science. It also provides
the employed firefighter an opportunity for a professional
education. Students intending to pursue a Bachelor’s
Degree (transfer program) should consult with a
counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
- FIRE 1 Fire Protection Organization 3.0 CSU
- FIRE 2 Fire Prevention Technology 3.0 CSU
- FIRE 3 Fire Protection Equipment and Systems 3.0 CSU
- FIRE 4 Building Construction for Fire Protection 3.0 CSU
- FIRE 5 Fire Behavior and Combustion 3.0 CSU
- FIRE 6 Hazardous Materials/ICS 3.0
- FIRE 7 Fire Fighting Tactics and Strategy 3.0 CSU
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 20 Fire Instructor 1A 2.0
- FIRE 21 Fire Instructor 1B 2.0
- FIRE 22 Fire Instructor 2a 2.0
- FIRE 23 Fire Instructor 2b 2.0
- FIRE 24 Fire Instructor 2c 2.0
- FIRE 30 Fire Management 1 2.0

Total Units 33.0

Recommended Electives:
- EMT 90 Emergency Medical Technician I
- FIRE 10 Arson and Fire Investigation 3.0 CSU
- FIRE 30 Fire Management 1
- FIRE 60 Fire Investigation 1A
- FIRE 61 Fire Investigation 1B
- PE-F 50 Physical Skills Preparation for Law Enforcement and Fire Science
- PE-F 51 Agility Testing Preparation for Law Enforcement and Fire Science
- PE-F 52 Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
- SPAN 66 Spanish for Fire and Police Personnel
General Business
Accounting and Management Department
Major S0501
This program is intended to prepare students for employment following graduation. Students wishing a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
- BUSA 7 Principles of Accounting - 5.0 CSU,UC
- BUSA 2 Business Law - 3.0 CSU,UC
- BUSM 10 Principles of Continuous Quality Improvement - 3.0
- BUSM 20 Principles of Business - 3.0 CSU,UC
- BUSM 60 Human Relations in Business - 3.0 CSU
- BUSM 61 Business Organization - 3.0 CSU
- BUSM 62 Business: Management - 1.0 - 4.0 CSU,UC
- BUSC 15 Microcomputer Applications - 4.0 CSU,UC

Select six (6) units from:
- BUSL 18 Business Law - Honors - 3.0 CSU,UC
- BUSM 62 Business: Management - 1.0 - 4.0 CSU,UC

Total Units 42.0

Accounting and Management Department
Major S1121
This program provides on-campus and on-site technical training in the field of histotechnology, focusing on routine tissue sample preparation, special stains and techniques such as immunohistochemistry, and in situ hybridization. Training on campus will utilize samples routinely prepared in both clinical and research facilities. As part of their formal training, students of histotechnology will work through study guides provided by the American Society of Clinical Pathologists (ASCP) for its certification examination. Partnerships with local facilities will allow for work experience and internship sites, required for certification of histotechnology graduates, and will provide further training for those interested in research and/or careers in the private sector.

Requirements for the Major
Required courses:
- ANAT 10B Introductory Human Physiology - 4.0 CSU,UC
- ANAT 36 Human Anatomy - 5.0 CSU,UC
- CHEM 10 Chemistry for Allied Health Majors - 4.0 CSU,UC
- CHEM 50 General Chemistry I - 5.0 CSU,UC
- HT 1 Introduction to Histotechnology - 1.0
- HT 2 Scientific Basics for Histologic Technicians - 3.0
- HT 10 Histology - 3.0
- HT 12 Beginning Histotechniques - 5.0
- HT 14 Advanced Histotechniques - 4.0
- HT 16 Histotechnology/Immunohistochemistry - 4.0
- HT 17 Work Experience - 1.0 - 4.0
- MICR 1 Principles of Microbiology - 5.0 CSU,UC
- MICR 22 Microbiology - 4.0 CSU

Total Units 41.0 - 44.0

Aquaculture
Agricultural Sciences Department
Major S0102
This program is designed to enable students to prepare for a career in the essential and diverse profession of aquaculture. The program is designed to articulate with the Collins School of Hospitality Management at Cal Poly Pomona, as well as other universities. Students wishing to transfer should consult with Hospitality and Restaurant Management faculty or advisor to discuss transfer options.

Requirements for the Major
Required courses:
- AGAN 2 Animal Nutrition - 3.0 CSU
- AGAN 4 Animal Breeding - 3.0
- AGLI 16 Horse Production - 4.0 CSU,UC
- AGLI 18 Horse Ranch Management - 4.0 CSU
- AGLI 19 Horse Hoof Care - 2.0 CSU
- AGLI 20 Horse Behavior and Training - 2.0
- AGLI 96 Animal Sanitation and Disease Control - 3.0 CSU
- AGLI 97 Artificial Insemination of Livestock - 2.0

Total Units 28.5

Recommended Elective:
- HRM 91 Work Experience in Restaurant/Hospitality
Human Resource Management
Accounting and Management Department
Major S0530

The Human Resource Management Degree is intended to prepare students to enter the business world in the dynamic environment of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resource management. Studies in human resource law, compensation systems, training, and development will provide the student a solid foundation from which to build a career in human resource management. Transfer students will gain a strong human resource management business elective base initiating further study in a variety of fields. Students active in the work arena will acquire new skills that are highly desirable in a fast-paced work force.

Requirements for the Major

**Required courses:**
- ANTH 22 General Cultural Anthropology 3.0 CSU,UC
- BUSA 70 Payroll and Tax Accounting 3.0
- BUSL 19 Advanced Business Law 3.0 CSU,UC
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU,UC
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- CSB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units:** 28.0

**Recommended Electives:**

**Architectural Illustration**
- BUSA 72 Bookkeeping - Accounting 3.0
- BUSL 19 Advanced Business Law 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU,UC
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- CSB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units:** 50.0

**Programs Leading to an Associates Degree**

**International Business**

**Accounting and Management Department Major S0507**

This program is intended to prepare students for employment following graduation. Students wishing a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**
- BUSL 19 Advanced Business Law 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU,UC
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- CSB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units:** 27.0 - 28.0

**Recommended Electives:**

- BUSA 72 Bookkeeping - Accounting 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**PLUS**

Select one (1) course from:
- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**Total Units:**

**Programs Leading to an Associates Degree**

**Interior Design**

**Consumer Science and Design Technologies Major S1301**

The program is available as a Certificate (Interior Merchandising), as an A.S. Degree Interior Design Assistant, and/or when combined with a Bachelor’s Degree qualifies student for Professional Designation in Interior Design (Professional Interior Designer) (see below). Students desiring a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The Interior Design program works within a Regional Interior Design Program of nearby community colleges. Many of the required courses may also be offered at the following community colleges and will meet the requirements of the Mt.SAC program: Fullerton, Long Beach City, Orange Coast, and Saddleback. Regional course numbers all have an ID (Interior Design) prefix. Some Mt. San Antonio College courses are offered by other departments and are identified by Mt. San Antonio College prefixes and numbers. These courses have the regional ID course number in parenthesis following their course title.

**Requirements for the Major**

**Required courses:**
- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 13 Architectural Illustration 3.0 CSU
- ARCH 15 Architectural Working Drawings - I 3.0 CSU
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU,UC
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- CSB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units:** 28.0

**Interior Design - Kitchen And Bath Design**

**Consumer Science and Design Technologies Major S1302**

This program provides for immediate opportunity to seek employment in the area of kitchen and bath design. The program is available as an Associate of Science Degree or a Certificate. Both the major and certificate are endorsed by the National Kitchen and Bath Association. Students completing all courses for this program will earn four (4) NKBA credits toward eligibility for professional certification as a Certified Kitchen Designer or Certified Bath Designer. Please see a professor of Interior Design or contact the NKBA for professional certification eligibility requirements beyond this program.

**Requirements for the Major**

**Required courses:**
- ARCH 11 Architectural Drawing 3.0 CSU,UC
- ARCH 13 Architectural Illustration 3.0 CSU
- ARCH 15 Architectural Working Drawings - I 3.0 CSU
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU,UC
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- CSB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units:** 50.0

**Recommended Electives:**

- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**PLUS**

Select one (1) course from:
- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**Total Units:**

**Programs Leading to an Associates Degree**

**Recommended Electives:**

- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**PLUS**

Select one (1) course from:
- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**Total Units:**

**Programs Leading to an Associates Degree**

**Recommended Electives:**

- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**PLUS**

Select one (1) course from:
- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**Total Units:**

**Programs Leading to an Associates Degree**

**Recommended Electives:**

- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**PLUS**

Select one (1) course from:
- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**Total Units:**

**Programs Leading to an Associates Degree**

**Recommended Electives:**

- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**PLUS**

Select one (1) course from:
- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**Total Units:**

**Programs Leading to an Associates Degree**

**Recommended Electives:**

- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**PLUS**

Select one (1) course from:
- BUSL 20 International Business Law 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0
- BUSM 68 Principles of Marketing 3.0

**Total Units:**
Programs Leading to an Associates Degree

Law Enforcement
Public Services Department
Major S2102
This program is intended to prepare students for employment following graduation. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
ADJU 1 The Administration of Justice System 3.0 CSU,UC
ADJU 2 Principles and Procedures of the Justice System 3.0 CSU
ADJU 3 Concepts of Criminal Law 3.0 CSU,UC
ADJU 4 Legal Aspects of Evidence 3.0 CSU
ADJU 5 Community Relations 3.0,3.0 CSU
ADJU 68 Administration of Justice Report Writing 3.0

PLUS
Select four (4) courses from:
ADJU 6 Concepts of Enforcement Services 3.0
ADJU 13 Concepts of Traffic Services 3.0
ADJU 20 Principles of Investigation 3.0 CSU
ADJU 38 Narcotics Investigation 3.0
ADJU 59 Gangs in the Community/Corrections 3.0 CSU
ADJU 74 Criminal Justice Process Control 3.0
CORS 30 Ethnic Relations in Corrections 3.0
CORS 40 Crime and Delinquency 3.0
CORS 45 The Violent Offender 3.0

Total Units 30.0

Recommended Electives:
PE-F 50 Physical Skills Preparation for Law Enforcement and Fire Science 3.0
PE-F 51 Agility Testing Preparation for Law Enforcement and Fire Science 3.0
PE-F 52 Fitness and Conditioning for Law Enforcement, Fire Science and Forestry 3.0
SPAN 66 Spanish for Fire and Police Personnel 3.0

Licensed Vocational Nurse to RN
Nursing Department
Major S1201
The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate of Science Degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.

The Licensed Vocational Nurse is provided career mobility in the Nursing Program. The Licensed Vocational Nurse may choose between earning an Associate of Science Degree in Nursing or completing the UNR 30-Unit Option track which leads to a certificate, not a degree.

Requirements for Nursing
Required courses:
NURS 4 Maternity Nursing 3.0 CSU
NURS 5 Psychiatric Nursing 3.0 CSU
NURS 6 Pediatric Nursing 3.0 CSU
NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis 7.0 CSU
NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0 CSU
NURS 9 Leadership in Nursing 1.0 CSU
NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0 CSU
NURS 11 Preceptorship in Nursing 2.0 CSU

Total Units 28.0

Requirements for the Major
ANAT 35 Human Anatomy 5.0 CSU, UC
and
ANAT 36 Human Physiology 5.0 CSU, UC
or
Introductory Human Anatomy and
Introductory Human Physiology

ANAT 10A Principles of Microbiology 4.0 CSU, UC
and
ANAT 10B Microbiology 4.0 CSU, UC

ENGL 1A Freshman Composition 3.0 CSU, UC
CHLD 10 Child Growth and Development 3.0 CSU, UC

Total Units 24.0 - 27.0

NOTE: Applicants planning to continue their education and enter a baccalaureate program in nursing will need to complete ANAT 35 and ANAT 36 instead of ANAT 10A and ANAT 10B and MCR 1 instead of MCR 22.

Requirements for the Associate Degree
Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the AS degree. Contact Counseling and Advising Services to schedule an appointment.

Selection Process
Beginning Fall 2006, students applying for admission to the Nursing Program will be required to see either a counselor or educational advisor to verify their eligibility to enter the Nursing program.

Procedure:
Students must complete all course prerequisites prior to requesting an appointment certifying readiness to enter into the Nursing program. Once eligibility has been established, students will enter on a first come first served basis.

The eligibility appointment:
a) Once a student has completed all course prerequisites, the student will then apply to the Nursing Department on an appointment basis.
b) Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
- Official transcripts of all college work completed at all colleges;
- If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
- Students completing college coursework outside of the United will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions Office).
- Due to specific deadlines for International Student applications, please inform the Counselor/Educational Advisor that this applies to you.
c) All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

Eligibility Verification will only be made during the following months:
- September 1 - October 31
- March 1 - April 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

All Applicants are required to meet the essential functions for success in the Nursing program.

Physical Demands:
- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
Livestock Management
Agricultural Sciences Department
Major S0103

The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The Department offers a comprehensive Agricultural Sciences Program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. It is recommended that all students consult with the department chairperson, faculty advisor, or counselor to file an educational plan.

Working Environment:
- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposed to products containing latex

English Language Skills:
Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and others.

Programs Leading to an Associates Degree

Manufacturing Technology
Aircraft Maintenance Tech & Manufacturing Dept.
Major S0918

This curriculum is designed to prepare the student for entrance into the manufacturing field in one of the machining occupations, such as machinist (manual, N/C, and CAD/CAM), or machinist apprentice.

Graduates may enter the manufacturing field in areas dealing with production, research and development, tool and die construction, mold making, or computerized manufacturing. Laboratory practice utilizes industrial types of equipment and precision measuring instruments to provide training in the various machining occupations. Setup and tooling procedures and part verification upon completion of the metal removing process are covered.

Instruction on all types of lathes, mills, grinders, and specialized equipment such as EDM and CNC is included. Supplementary instruction is also provided in bench work, layout, inspection process, blueprint reading, metal composition, heat treatment, assembly procedures, jig and fixture design, and construction.

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAB 20</td>
<td>Microcomputer Applications in Agriculture</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>AGGL 1</td>
<td>Food Production, Land Use, and Politics - A Global Perspective</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>AGAG 59</td>
<td>Work Experience in Agriculture</td>
<td>1.0 – 4.0</td>
</tr>
<tr>
<td>AGAG 91</td>
<td>Agricultural Calculations</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 1</td>
<td>Animal Science</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>AGAN 2</td>
<td>Animal Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>AGAN 94</td>
<td>Animal Breeding</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 14</td>
<td>Swine Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 16</td>
<td>Horse Production</td>
<td>4.0 CSU,UC</td>
</tr>
<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Beef Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection</td>
<td>2.0 CSU,UC</td>
</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control</td>
<td>3.0</td>
</tr>
<tr>
<td>PLUS</td>
<td>Select six (6) units from:</td>
<td></td>
</tr>
<tr>
<td>AGOR 53</td>
<td>Small Engine Repair I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSA 20</td>
<td>Principles of Business</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Principles of Marketing</td>
<td>3.0 CSU</td>
</tr>
</tbody>
</table>

Total Units 43.0 - 46.0

Marketing Management
Business Administration Department
Major S0510

This program is intended to prepare students for employment following graduation. Students wishing a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting</td>
<td>5.0 CSU,UC</td>
</tr>
<tr>
<td>BUSA 25</td>
<td>Business Communications</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 61</td>
<td>Business Organization and Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Special Issues in Marketing</td>
<td>2.0</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Principles of Business</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSO 35</td>
<td>Professional Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 36</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 70</td>
<td>International Marketing Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CISP 15</td>
<td>Microcomputer Applications</td>
<td>4.0 CSU,UC</td>
</tr>
</tbody>
</table>

PLUS
Select one (1) course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSC 1A</td>
<td>Principles of Economics</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>BUSC 1AH</td>
<td>Principles of Economics - Honors</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>BUSC 1B</td>
<td>Principles of Economics</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>BUSC 1BH</td>
<td>Principles of Economics - Honors</td>
<td>3.0 CSU,UC</td>
</tr>
<tr>
<td>BUSC 17</td>
<td>Applied Business Statistics</td>
<td>3.0 CSU,UC</td>
</tr>
</tbody>
</table>

Total Units 32.0
Programs Leading to an Associates Degree

Mental Health Technology - Psychiatric Technician
Psychiatric Technician Department
Major S1208

Completion of coursework leads to an Associate of Science Degree. The Psychiatric Technician Program will prepare students to take the California State Licensure Examination for Psychiatric Technicians.

Requirements for the Major

Required courses:

- MENT 40 Introduction to Interviewing and Counseling 3.0
- MENT 56 Medical - Surgical Nursing 9.0
- MENT 56L Clinical Experience 4.0
- MENT 58D Advanced Medical - Surgical Nursing and Pharmacology for PT 4.0
- MENT 58L Advanced Medical - Surgical Nursing for Psychiatric Technicians Clinical 1.5
- MENT 70 Introduction to Psychiatric Technology 1.5
- MENT 70L Introduction to Psychiatric Technology Clinical Technicians 2.0
- MENT 72 Nursing Care of the Developmentally Disabled Person 7.0
- MENT 72L Nursing Care of the Developmentally Disabled Person - Clinical 5.0
- MENT 73T Psychiatric Nursing for Psychiatric Technicians Clinical 5.0
- MENT 73T Psychiatric Nursing 6.0
- MENT 82 Work Experience 2.0
- PSYC 3A Introduction to Psychology 3.0
- CSULC Total Units 53.0

Special Information

Additional general education courses needed for completion of the Associate in Science Degree requirements are listed in the Mt. San Antonio College Catalog, but are not required to qualify the student for the California State Board Examination.

To remain in the program, students must maintain a "C" or better grade in all courses. The student will qualify to take the California State Board Examination upon completion of all the above courses, except MENT 82.

Entrance Requirements

In addition to meeting Mt. San Antonio College's academic standards for admission, applicants must be in good standing and satisfy the following requirements:

a) Be a high school graduate or equivalent. (All students who have taken coursework outside of the United States must have their transcript evaluated. Foreign transcripts will not be accepted without the evaluation.)

b) Be 18 years of age.

c) File a college application and be accepted as a student at Mt. San Antonio College.

d) Submit an application for the Mental Health/Psychiatric Technician Program to the Technology and Health Division Office (909) 594-5611, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.

e) Take the required English Placement Test (AWE). Eligibility for ENGL 68 is advised.

If you have already taken a college placement exam within the past two years at another school, arrange to have your test scores forwarded to the Technology and Health Division Office. (If you were tested at Mt. San Antonio College, the office will obtain the test scores as long as an "Application for Admission" is on file with the Admissions and Records Office.)

Testing is administered by the Assessment Center, located in the Student Services Center. Arrangements should be made with them to test a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, Ext. 4265.

f) Forward two official transcripts of all coursework completed (high school, nursing school, and other than Mt. San Antonio College courses.) One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.

g) For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.

NOTE: Concerning Entrance Requirements

"a" and "f", if the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Indicate in the mailing address the program for which your transcript is being sent to the Technology and Health Division Office.

EXAMPLE: Mt. San Antonio College Technology and Health Division Psychiatric Technician Program 1100 North Grand Avenue Walnut, CA 91789-1399

h) A physical examination, including specific immunizations, and consent/disclaimer for Hepatitis A/B vaccine is required of all candidates prior to beginning classes. Students must provide proof that he/she does not have Tuberculosis. These requirements are in accordance with the healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.

i) Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.

j) All students may be required to pass a background check prior to entering the clinical education phase.

Selection Procedure

In determining eligibility of an applicant, consideration will be given to satisfactory scores on the English Placement Test.

The College will make every effort to notify the applicant of acceptance by mail no less than two months prior to the beginning of a program. All Applicants are required to meet the Essential Functions for Success in the Mental Health Technology - Psychiatric Technician Program.

All Applicants are Required to Meet the Essential Functions for Success in the Mental Health Technology - Psychiatric Technician Program.

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift and carry at least 125 pounds)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

Sensory Demands:

- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices)
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

Working Environment:

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposed to products containing latex

English Language Skills:

Although proficiency in English is not a criteria for admission into the program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

In good standing and satisfy the following requirements:
Nursing
Nursing Department
Major S1203

The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate of Science Degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.

Prerequisite Courses:

1. Human Anatomy, including a laboratory component, a minimum of four (4) semester units.
2. Human Physiology, including a laboratory component, a minimum of four (4) semester units.
3. Microbiology, including a laboratory component, a minimum of four (4) semester units.
4. English 1A (Writing Composition) minimum of three (3) semester units with a minimum grade of C.

Non-course requirements:

1. An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a “C” for each course and no more than one repetition of any one of the courses.
2. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
3. Eligibility for Math 51
4. High school graduation or GED or academic degree from an accredited college/university in the United States.
5. Criminal background check and drug screening must be completed prior to any patient contact.
6. A physical examination, including specific immunizations, is required of all candidates prior to the beginning of nursing classes.
7. Current Level C-Provider CPR certification

Regarding Licensure:

The California Board of Registered Nursing (BRN) protects the consumer by screening applicants for licensure in order to identify potentially unsafe practitioners. The BRN may deny applications for interim permits, temporary licenses, and permanent licensure, if the applicant has been found guilty of dishonesty, fraud or deceit, felony child abuse, sex offenses, crimes involving narcotics, dangerous drugs or devices, assault and/or battery, and other crimes. Applicants who have questions regarding limitations related to licensure should contact the California Board of Registered Nursing at (916) 322-3350 or access its website at www.rn.ca.gov

Requirements for Nursing

Required courses:

- NURS 1A The Nursing Process I 4.7 CU
- NURS 1B The Nursing Process II 4.7 CU
- NURS 2 Pharmacology 2.0 CU
- NURS 3 Medical-Surgical Nursing: Locomotion/Sensory Integument/Oncology/Immunology 3.5 CU
- NURS 4 Maternity Nursing 3.0 CU
- NURS 5 Psychiatric Nursing 3.0 CU
- NURS 6 Pediatric Nursing 3.0 CU
- NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis 7.0 CU
- NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0 CU
- NURS 9 Leadership in Nursing 1.0 CU
- NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0 CU
- NURS 11 Preceptorship in Nursing 2.0 CU

Total Units 43.0

Requirements for the Major

- ANAT 35 Human Anatomy 5.0 CU
- ANAT 36 Human Physiology 5.0 CU
- ANAT 10A Introductory Human Anatomy 4.0 CU
- ANAT 10B Introductory Human Physiology 4.0 CU
- MIRC 1 Principles of Microbiology 5.0 CU
- MIRC 22 Microbiology 4.0 CU
- ENGL 1A Freshman Composition 3.0 CU
- CHLD 10 Child Growth and Development 3.0 CU
- PSYC 14 Developmental Psychology 3.0 CU
- PSYC 1A Introduction to Psychology 3.0 CU
- SPCH 1A Public Speaking 3.0 CU

Total Units 24.0 - 27.0

NOTE: Applicants planning to continue their education and enter a baccalaureate program in nursing will need to complete ANAT 35 and ANAT 36 instead of ANAT 10A and ANAT 10B and MIRC 1 instead of MIRC 22.

Requirements for the Associate Degree

Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the AS degree. Contact Counseling and Advising Services to schedule an appointment.

Application Process:

Beginning Fall 2006, students applying for admission to the Nursing Program will be required to see either a counselor or educational advisor to verify their eligibility to enter into the nursing admission lottery.

Procedure:

1) Students must complete all course prerequisites prior to requesting an appointment for certifying readiness to enter into the Nursing lottery process:

   Course Prerequisites:
   - ANAT 10A or 35, Human Anatomy;
   - ANAT 10B or 36, Human Physiology
   - MIRC 1 or 22, Microbiology
   - ENGL 1A, Freshman Composition

2) Eligibility for entering the Nursing admission lottery will be based on the following performance criteria:

   a) A grade point average of 2.5 in Human Anatomy, Human Physiology and Microbiology.
   b) A minimum grade of “C”, and no more than one repetition of any one of the courses
   c) A cumulative grade point average of 2.5, in all college coursework completed at all colleges;
   d) Students must develop an education plan with a counselor or educational advisor.
   e) Students must develop an education plan with a counselor or educational advisor.
   f) Students must develop an education plan with a counselor or educational advisor.
   g) Students must develop an education plan with a counselor or educational advisor.
   h) Students must develop an education plan with a counselor or educational advisor.
   i) Students must develop an education plan with a counselor or educational advisor.
   j) Students must develop an education plan with a counselor or educational advisor.
   k) Students must develop an education plan with a counselor or educational advisor.
   l) Students must develop an education plan with a counselor or educational advisor.
   m) Students must develop an education plan with a counselor or educational advisor.
   n) Students must develop an education plan with a counselor or educational advisor.
   o) Students must develop an education plan with a counselor or educational advisor.
   p) Students must develop an education plan with a counselor or educational advisor.
   q) Students must develop an education plan with a counselor or educational advisor.
   r) Students must develop an education plan with a counselor or educational advisor.
   s) Students must develop an education plan with a counselor or educational advisor.
   t) Students must develop an education plan with a counselor or educational advisor.
   u) Students must develop an education plan with a counselor or educational advisor.
   v) Students must develop an education plan with a counselor or educational advisor.
   w) Students must develop an education plan with a counselor or educational advisor.
   x) Students must develop an education plan with a counselor or educational advisor.
   y) Students must develop an education plan with a counselor or educational advisor.
   z) Students must develop an education plan with a counselor or educational advisor.

3) The eligibility appointment:

   a) Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
   b) Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:

   - Official transcripts of all college work completed at all colleges;
   - If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
   - Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions & Records Office).
   - Due to specific college deadlines for International Student applications, please inform the Counselor/Educational Advisor that this applies to you.

   c) All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

APPOINTMENTS FOR ELIGIBILITY VERIFICATION WILL ONLY BE MADE DURING THE FOLLOWING MONTHS:

- September 1 - October 31
- March 1 - April 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

FINAL SELECTION OF STUDENTS FOR EACH NURSING CLASS WILL BE DETERMINED BY LOTTERY.

ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE NURSING PROGRAM.

Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift/carry 50 lbs. or more)
Programs Leading to an Associates Degree

- Perform considerable reaching, stooping, bending, kneeling, crouching.

Sensory Demands:
- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices).
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

Working Environment:
- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposed to products containing latex

English Language Skills:
Although proficiency in English is not a criteria for admission into the nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

Ornamental Horticulture
Agricultural Sciences Department

Major S0119

The courses in ornamental horticulture are designed to enable students to prepare for careers in the essential and diverse horticulture profession. Careers in nursery management, retail garden centers, landscape design, installation and maintenance, arboretum and botanic gardens, arboriculture, interior landscaping, education, and research are just some of the options.

This degree is part of our comprehensive agricultural sciences program. Our program is unique in that most courses provide hands-on experience and are designed to give the student combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

Listed below are the courses needed to satisfy major requirements. It is recommended that students consult with the department chairperson, advisor or counselor to file an educational plan. For additional information, please call the Agricultural Sciences Department, ext. 4540, or visit the Mt. SAC Web site at www.mt sac.edu/instruction/sciences/agriculture.

Requirements for the Major

Required courses:
- AGAG 1 Food Production, Land Use and Politics - A Global Perspective 3.0 CSU,UC
- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 2 Plant Propagation/ Greenhouse Management 3.0 CSU
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Heraceous 3.0 CSU,UC
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU,UC
- AGOR 32 Landscaping and Nursery Management 3.0 CSU
- AGOR 39 Turf Grass Production and Management 3.0 CSU
- AGOR 50 Soil Science and Management 3.0 CSU,UC
- AGOR 62 Landscape Irrigation - Design and Installation 3.0 CSU
- AGOR 71 Landscape Construction Fundamentals 3.0 CSU
- AGOR 91 Work Experience in Nursery Operations 1.0 – 4.0

PLUS
Select six (6) units from:
- AGOR 15 Interior Landscaping 3.0
- AGOR 25 Floral Design I 3.0 CSU
- AGOR 26 Floral Design II 3.0 CSU
- AGOR 40 Sports Turf Management 3.0
- AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
- AGOR 53 Small Engine Repair I 3.0 CSU
- AGOR 63 Landscape Irrigation Systems Management 3.0
- AGOR 72 Landscape Hardscape Applications 3.0 CSU
- AGOR 75 Urban Arboriculture 3.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

Total Units 43.0 - 46.0

Paralegal/Legal - Bankruptcy Specialty
Business Administration Department

Major S1401

The Paralegal/Legal - Bankruptcy Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills, as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.

Requirements for the Major

Required courses:
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU
- PLGL 33B Civil Procedure Trial and Post-Trial 3.0 CSU
- PLGL 35A Law Office Procedures 3.0 CSU
- PLGL 35B Automated Law Office Procedures 3.0
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues in Paralegalism 2.0
- PLGL 39 Contract Law 3.0 CSU
- PLGL 41 Property Law 3.0 CSU
- PLGL 44 Bankruptcy Law 3.0 CSU
- PLGL 45 Creditors’ Rights 3.0 CSU

Total Units 38.0

The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including PLGL 36 - Paralegal Internship.

Special Information:
The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3 and COUN 5. Students developing their educational plan should select another course from the Mt. SAC General Education area which will satisfy that area’s General Education requirement.
Paralegal/Legal - Corporations/Business Specialty
Business Administration Department
Major S1405

The Paralegal/Legal - Corporations/Business Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a Bachelor's Degree in Paralegal/Legal should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 18 Business Law 3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSL 18H Business Law - Honors 3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSL 19 Advanced Business Law 3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSL 20 International Business Law 3.0</td>
</tr>
<tr>
<td>PLGL 30 Introduction to Paralegal/Legal 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 31A Legal Analysis and Writing 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 33A Civil Procedure Pretrial 3.0</td>
</tr>
<tr>
<td>PLGL 35A Law Office Procedures 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 35B Automated Law Office Procedures 3.0</td>
</tr>
<tr>
<td>PLGL 37 Tort Law 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 38 Employment and Ethical Issues in Paralegalism 2.0</td>
</tr>
<tr>
<td>PLGL 39 Contract Law 3.0 CSU</td>
</tr>
<tr>
<td>Total Units 38.0</td>
</tr>
</tbody>
</table>

Recommended Electives:

- The program recommends that students consult with their counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.

Paralegal/Legal - Criminal Specialty
Business Administration Department
Major S1402

The Paralegal/Legal - Criminal Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a Bachelor's Degree in Paralegal/Legal should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 18 Business Law 3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSL 18H Business Law - Honors 3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSL 19 Advanced Business Law 3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSL 20 International Business Law 3.0</td>
</tr>
<tr>
<td>PLGL 30 Introduction to Paralegal/Legal 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 31A Legal Analysis and Writing 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 33A Civil Procedure Pretrial 3.0</td>
</tr>
<tr>
<td>PLGL 33B Civil Procedure-Trial 3.0</td>
</tr>
<tr>
<td>PLGL 35A Law Office Procedures 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 35B Automated Law Office Procedures 3.0</td>
</tr>
<tr>
<td>PLGL 37 Tort Law 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 38 Employment and Ethical Issues in Paralegalism 2.0</td>
</tr>
<tr>
<td>PLGL 39 Contract Law 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 40A Tort Law 3.0</td>
</tr>
<tr>
<td>PLGL 40S Comparative Law 3.0</td>
</tr>
<tr>
<td>PLGL 48 Criminal Law and Procedures 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 49 Evidence Law 3.0 CSU</td>
</tr>
<tr>
<td>Total Units 35.0</td>
</tr>
</tbody>
</table>

Recommended Electives:

- The program recommends that students consult with their counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.

Paralegal/Legal - Family Law Specialty
Business Administration Department
Major S1403

The Paralegal/Legal - Family Law Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a Bachelor's Degree in Paralegal/Legal should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLGL 30 Introduction to Paralegal/Legal 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 31A Legal Analysis and Writing 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 33A Civil Procedure Pretrial 3.0</td>
</tr>
<tr>
<td>PLGL 33B Civil Procedure-Trial 3.0</td>
</tr>
<tr>
<td>PLGL 35A Law Office Procedures 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 35B Automated Law Office Procedures 3.0</td>
</tr>
<tr>
<td>PLGL 37 Tort Law 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 38 Employment and Ethical Issues in Paralegalism 2.0</td>
</tr>
<tr>
<td>PLGL 39 Contract Law 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 40A Tort Law 3.0</td>
</tr>
<tr>
<td>PLGL 40S Comparative Law 3.0</td>
</tr>
<tr>
<td>PLGL 48 Criminal Law and Procedures 3.0 CSU</td>
</tr>
<tr>
<td>PLGL 49 Evidence Law 3.0 CSU</td>
</tr>
<tr>
<td>Total Units 35.0</td>
</tr>
</tbody>
</table>

Special Information:

- The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3, and COUN 5. Students developing their educational plan should select that area's General Education requirements.

Recommended Electives:

- The program recommends that students consult with their counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.
Programs Leading to an Associates Degree

Paralegal/Legal - Landlord/Tenant Specialty
Business Administration Department
Major S1404

The Paralegal/Legal - Landlord/Tenant Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specially delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nontaxyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Recommended Electives:
The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including PLGL 36 - Paralegal Internship.

Special Information:
The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3 and COUN 5. Students developing their educational plan should select another course from the Mt.SAC General Education area which will satisfy that area's General Education requirement.

Paralegal/Legal - Landlord/Tenant Specialty Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.

Requirements for the Major

- **Required courses:**
  - PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
  - PLGL 31A Legal Analysis and Writing 3.0 CSU
  - PLGL 31B Advanced Legal Analysis 3.0 CSU
  - PLGL 33A Civil Procedure Pretrial 3.0 CSU
  - PLGL 33B Civil Procedure-Trial and Post-Trial 3.0 CSU
  - PLGL 35A Law Office Procedures 3.0 CSU
  - PLGL 35B Automated Law Office Procedures 3.0
  - PLGL 37 Tort Law 3.0 CSU
  - PLGL 38 Employment and Ethical Issues 2.0
  - PLGL 39 Contract Law 3.0 CSU
  - PLGL 40 Landlord-Tenant Law 3.0 CSU
  - PLGL 41 Property Law 3.0 CSU

- **Total Units:** 38.0

**Recommended Electives:**
The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including PLGL 36 Paralegal Internship.

**Special Information:**
The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3 and COUN 5. Students developing their educational plan should select another course from the Mt.SAC General Education area which will satisfy that area's General Education requirement.

**Requirements for the Major**

- **Required courses:**
  - AGAG 1 Food Production, Land Use and Politics - A Global Perspective 3.0 CSU,UC
  - AGOR 4 Park Management 3.0
  - AGOR 5 Park Facilities 3.0
  - AGOR 13 Landscape Design 3.0 CSU
  - AGOR 24 Integrated Pest Management 3.0 CSU
  - AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU,UC
  - AGOR 35 Turf Grass Production and Management 3.0 CSU
  - AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
  - AGOR 62 Landscape Irrigation - Design and Installation 3.0 CSU
  - AGOR 63 Landscape Irrigation Systems Management 3.0
  - AGOR 71 Landscape Construction Fundamentals 3.0 CSU
  - AGOR 75 Urban Arboriculture 3.0
  - AGOR 91 Work Experience in Nursery Operations 1.0 - 4.0
  - CISB 15 Microcomputer Applications 4.0 CSU,UC

- **Total Units:** 44.0 - 47.0

**Programs Leading to an Associates Degree**

**Park and Sports Turf Management**
Agricultural Sciences Department
Major S0116

The courses in park and sports turf management are designed to enable students to prepare for a career in this essential and diverse profession. This degree is part of our comprehensive Agricultural Sciences Program. The program is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

This program is intended to prepare students to manage a park or sports facility and also for employment following graduation. Students will learn how to design, install and manage irrigation systems, set up and implement fertilizer and pest management programs, design and properly install a complete landscape (including all plants and hardcape), and properly identify and maintain trees, shrubs and turf grasses. In addition, students will learn personnel management, budgeting and other management topics.

**Requirements for the Major**

- **Required courses:**
  - AGAG 1 Food Production, Land Use and Politics - A Global Perspective 3.0 CSU,UC
  - AGOR 4 Park Management 3.0
  - AGOR 5 Park Facilities 3.0
  - AGOR 13 Landscape Design 3.0 CSU
  - AGOR 24 Integrated Pest Management 3.0 CSU
  - AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU,UC
  - AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU,UC
  - AGOR 35 Turf Grass Production and Management 3.0 CSU
  - AGOR 51 Tractor and Landscape Equipment Operations 3.0 CSU
  - AGOR 62 Landscape Irrigation - Design and Installation 3.0 CSU
  - AGOR 63 Landscape Irrigation Systems Management 3.0
  - AGOR 71 Landscape Construction Fundamentals 3.0 CSU
  - AGOR 75 Urban Arboriculture 3.0
  - AGOR 91 Work Experience in Nursery Operations 1.0 - 4.0
  - CISB 15 Microcomputer Applications 4.0 CSU,UC

- **Total Units:** 44.0 - 47.0

**Pet Science**
Agricultural Sciences Department
Major S0104

The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The Department offers a comprehensive Agricultural Sciences Program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. It is recommended that all students consult with the department chairperson, counselor or advisor to file an educational plan.

These programs are intended to prepare students for employment following graduation. Students desiring a Bachelor's Degree (transfer program) should consult with the department chairperson, counselor or advisor to discuss transferability of courses. The curriculum is flexible in nature to allow for previous experience and specialization in a given area of agriculture and agricultural business.

**Requirements for the Major**

- **Required courses:**
  - AGAB 20 Microcomputer Applications in Agriculture 3.0 CSU,UC
  - AGAN 1 Animal Science 3.0 CSU,UC
  - AGAN 2 Animal Nutrition 3.0 CSU
  - AGAN 51 Animal Handling and Restraint 3.0 CSU
  - AGAN 94 Animal Breeding 3.0
  - AGU196 Animal Sanitation and Disease Control 3.0 CSU
  - AGPE 70 Pet Shop Management 3.0
  - AGPE 71 Canine Management 3.0
  - AGPE 72 Feline Management 3.0
  - AGPE 73 Tropical and Coldwater Fish Management 2.0
  - AGPE 74 Reptile Management 2.0
  - AGPE 76 Aviculture - Cage and Aviary Birds 3.0

- **Total Units:** 34.0

<table>
<thead>
<tr>
<th>Programs Leading to an Associates Degree</th>
<th>Total Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paralegal/Legal - Landlord/Tenant Specialty</td>
<td>38.0</td>
</tr>
<tr>
<td>Park and Sports Turf Management</td>
<td>44.0 - 47.0</td>
</tr>
<tr>
<td>Pet Science</td>
<td>34.0</td>
</tr>
</tbody>
</table>

2009-10 Mt. San Antonio College Catalog
### Photography

**Commercial and Entertainment Arts**  
**Major S1002**

This program is designed to prepare the student for employment in the field of photography. A variety of career opportunities are available in photography, art, cinema, communications, industrial arts, graphics, and journalism. Students desiring a Bachelor's Degree should consult with an advisor or catalog of the institution they wish to attend regarding transferability of courses.

**Requirements for the Major**

- **Required courses:**
  - PHOT 10 Basic Digital Photography
  - PHOT 20 Color Photography
  - PHOT 21 Exploring Color Photography
  - PHOT 28 Photography Portfolio
  - PHOT 30 Commercial and Illustrative Photography

- **Total Units: 33.0**

**Recommended Electives:**
- AHIS 1 Understanding the Visual Arts
- ARTB 1 Understanding the Visual Arts
- GRAP 12 Advanced Photo Editing with Photoshop
- PHOT 1 Laboratory Studies: Black and White Photography
- PHOT 2 Laboratory Studies: Color Photography

### Physical Education

**Physical Education Department**  
**Major S0806**

This program is designed to prepare students for employment in the field of Physical Education. Students wishing to complete the Physical Education major require a thorough knowledge of science, education, and practical experience with children and adults in the field of physical education and to discuss transferability.

**Requirements for the Major**

- **Required courses:**
  - ANAT 35 Human Anatomy 5.0 CU, UC
  - ANAT 36 Human Physiology 5.0 CU, UC
  - NF 10 Nutrition for Personal Health and Wellness 3.0 CU
  - NF 25 Essentials of Nutrition 3.0 CU, UC
  - PE 3 First Aid and CPR 3.0 CU, UC
  - PE 5 Advanced First Aid/CPR/Emergency Response 3.0 CU
  - PE 17 Introduction to Physical Education 3.0 CU, UC
  - PE 19 Introduction to Care/Prevention 3.0 CU, UC
  - PE 34 Fitness for Living 3.0 CU, UC
  - PE-A Dance: Activity 0.5 - 2.0 CU, UC
  - PE-F Physical Education: Aquatics 0.5 - 2.0 CU, UC
  - PE-I Physical Education: Individual 0.5 - 1.0 CU, UC
  - PE-L Physical Education: Adaptive 0.5 - 1.0 CU, UC
  - PE-S Physical Education: Team Sports 0.5 - 1.0 CU, UC

- **Total Units: 28.6 - 41.5**

**Plus:**

Select eight (8) courses from:

- DNCE Dance: Activity 0.5 - 2.0 CU, UC
- ENGL English 1A (Writing Composition) 3.0 CU, UC
- MICR 1 Principles of Microbiology 5.0 CU, UC
- MICR 2 Microbiology 4.0 CU, UC
- PSYC 1A Introduction to Psychology 3.0 CU, UC
- PSYC 14 Developmental Psychology 3.0 CU, UC

### Psychiatric Technician to RN

**Nursing Department**  
**Major S1209**

The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of course work in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate of Science Degree in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse. The Psychiatric Technician is provided career mobility into the Psychiatric Technician Program to earn an Associate Degree in Nursing.

**Prerequisite Courses:**

1. Human Anatomy, including a laboratory component, a minimum of four semester units.
2. Human Physiology, including a laboratory component, a minimum of four semester units.
3. Microbiology, including a laboratory component, a minimum of four semester units.
4. English 1A (Writing Composition) minimum of three semester units with units with a minimum grade of C.
5. PSYC 1A Introduction to Psychology
6. CHLD 10 Child Growth and Development
7. ANAT 10A Introductory Human Anatomy 4.0 CU, UC
8. ANAT 10B Introductory Human Physiology 4.0 CU, UC
9. MICR 1 Principles of Microbiology 5.0 CU, UC
10. ENGL 1A Freshman Composition 4.0 CU, UC
11. CHLD 10 Child Growth and Development 3.0 CU, UC
12. PSYC 1A Introduction to Psychology 3.0 CU, UC
13. SPCH 1A Public Speaking 3.0 CU, UC

- **Total Units: 28.5**

**Requirements for the Major**

- **Required courses:**
  - ANAT 35 Human Anatomy 5.0 CU, UC
  - ANAT 36 Human Physiology 5.0 CU, UC
  - NF 10 Nutrition for Personal Health and Wellness 3.0 CU
  - NF 25 Essentials of Nutrition 3.0 CU, UC
  - PE 3 First Aid and CPR 3.0 CU, UC
  - PE 5 Advanced First Aid/CPR/Emergency Response 3.0 CU
  - PE 17 Introduction to Physical Education 3.0 CU, UC
  - PE 19 Introduction to Care/Prevention 3.0 CU, UC
  - PE 34 Fitness for Living 3.0 CU, UC
  - DNCE Dance: Activity 0.5 - 2.0 CU, UC
  - ENGL English 1A (Writing Composition) 3.0 CU, UC
  - MICR 1 Principles of Microbiology 5.0 CU, UC
  - MICR 2 Microbiology 4.0 CU, UC
  - PSYC 1A Introduction to Psychology 3.0 CU, UC
  - PSYC 14 Developmental Psychology 3.0 CU, UC

- **Required courses:**
  - ANAT 35 Human Anatomy 5.0 CU, UC
  - ANAT 36 Human Physiology 5.0 CU, UC
  - NF 10 Nutrition for Personal Health and Wellness 3.0 CU
  - NF 25 Essentials of Nutrition 3.0 CU, UC
  - PE 3 First Aid and CPR 3.0 CU, UC
  - PE 5 Advanced First Aid/CPR/Emergency Response 3.0 CU
  - PE 17 Introduction to Physical Education 3.0 CU, UC
  - PE 19 Introduction to Care/Prevention 3.0 CU, UC
  - PE 34 Fitness for Living 3.0 CU, UC
  - DNCE Dance: Activity 0.5 - 2.0 CU, UC
  - ENGL English 1A (Writing Composition) 3.0 CU, UC
  - MICR 1 Principles of Microbiology 5.0 CU, UC
  - MICR 2 Microbiology 4.0 CU, UC
  - PSYC 1A Introduction to Psychology 3.0 CU, UC
  - PSYC 14 Developmental Psychology 3.0 CU, UC

- **Total Units: 25.0 - 27.0**

**NOTE:** Applicants planning to continue their education and enter a baccalaureate program in nursing will need to complete ANAT 35 and ANAT 36 instead of ANAT 10A and ANAT 10B and MICR 1 instead of MICR 2.
Requirements for the Associate Degree

Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the A.S. degree. Contact Counseling and Advising Services to schedule an appointment.

Selection Process

Beginning Fall 2006, students applying for admission to the Nursing Program will be required to see either a counselor or educational advisor to verify their eligibility to enter the Nursing program.

Procedure:

Students must complete all course prerequisites prior to requesting an appointment for certifying readiness to enter into the Nursing program. Once eligibility has been established, students will enter on a first come first served basis.

The eligibility appointment:

a) Once a student has completed all course prerequisites, the student will then apply to the Nursing Department on an appointment basis.

b) Students who have completed coursework at other colleges must bring the following information to their appointment (students may be able to obtain a list of agencies from the Admissions Office).

- Official transcripts of all college work completed at all colleges;
- If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
- Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions Office).
- Due to specific college deadlines for International Student applications, please consult with a counselor or advisor to discuss transferability of courses.

Sensory Demands:

- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices).
- Distance perception: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: ability to recognize a full range of tones

Working Environment:

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts

- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances

- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposed to products containing latex

English Language Skills:

Although proficiency in English is not a criteria for admission into the program, students are encouraged to be able to speak, write and read English, to complete classes successfully and to ensure safety for themselves and for others.

Radio Broadcasting: Behind the Scenes

Commercial and Entertainment Arts

Major 5060

The Radio Broadcasting Behind-the-Scenes Degree is designed for students who are interested in the non-performance side of the broadcasting industry. Instruction in this major prepares students for entry-level jobs in a variety of areas including production, promotion, copywriting and management. Students also receive instruction in the business side of the industry and can further customize their program by selecting from a variety of optional courses.

Requirements for the Major

Required courses:

- R-TV 01 Introduction to Broadcasting 3.0  
- R-TV 09 Broadcast Sales and Promotion 3.0  
- R-TV 10 Radio Management and Programming 3.0
- R-TV 11A Beginning Radio Production 3.0  
- R-TV 11B Advanced Radio Production 3.0
- R-TV 12 Commercial Copywriting 3.0
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 16 Broadcast Career Preparation 3.0
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Internship 1.0
- R-TV 97C KSAR Radio/Internet Radio 1.0 – 2.0

PLUS

Select nine (9) units from:

- R-TV 03 Sportscasting and Reporting 1.5

R-TV 04 Broadcast News Field Reporting 3.0
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 06 Broadcast Traffic Reporting 1.5
- R-TV 08 KSAR Radio Studio Operations 2.0 CU
- R-TV 17 Internet Radio and Podcasting 3.0
- R-TV 26 Legal Issues in Entertainment Law 3.0
- R-TV 27 Radio Drama 3.0
- R-TV 31 History of Radio Dis 3.0
- R-TV 33 Radio Show Producer Techniques 3.0 and Procedures

Total Units 36.0 – 37.0
<table>
<thead>
<tr>
<th>Programs Leading to an Associates Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radiologic Technology</strong></td>
</tr>
<tr>
<td><strong>Radiologic Technology Department</strong></td>
</tr>
<tr>
<td><strong>Major S1206</strong></td>
</tr>
<tr>
<td>The course of study in Radiologic Technology offered at Mt. San Antonio College and its affiliated hospitals will prepare students to be certified radiologic technologists. Students will gain knowledge and understanding of the diagnostic uses of x-ray, as well as the technical skills to use x-ray equipment in both laboratory and clinical settings. The courses are developed to enable students to operate x-ray equipment, assist in the diagnosis of disease, and to observe proper medical ethics. Students will learn the nature of radiation, the principles of electricity, the structure of x-ray machines, and the operation of a clinical x-ray department. To remain in the program, students must maintain a grade of &quot;C&quot; or better in all courses. Upon completion of the Associate of Science Degree in Radiologic Technology, graduates are eligible to apply for the registry examination through the American Registry of Radiologic Technologists and the California Certification of Radiologic Technology. This is a licensed profession, and a valid Social Security Number is required to obtain state certification and national licensure.</td>
</tr>
</tbody>
</table>

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>MEDI 90</td>
<td>Medical Terminology</td>
<td>3.0</td>
</tr>
<tr>
<td>RAD 30</td>
<td>Radiographic Pathology</td>
<td>1.5</td>
</tr>
<tr>
<td>RAD 31</td>
<td>Fluoroscopy</td>
<td>2.0</td>
</tr>
<tr>
<td>RAD 32</td>
<td>Digital Imaging in Radiology</td>
<td>2.0</td>
</tr>
<tr>
<td>RAD 50</td>
<td>Radiologic Technology</td>
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</tr>
<tr>
<td>RAD S2A</td>
<td>Techniques of Radiologic Technology</td>
<td>4.5</td>
</tr>
<tr>
<td>RAD S2B</td>
<td>Techniques of Radiologic Technology</td>
<td>2.5</td>
</tr>
<tr>
<td>RAD S3</td>
<td>Techniques of Radiologic Technology</td>
<td>5.0</td>
</tr>
<tr>
<td>RAD S4</td>
<td>Techniques of Radiologic Technology</td>
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</tr>
<tr>
<td>RAD S5A</td>
<td>Techniques of Radiologic Technology</td>
<td>7.0</td>
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<td>RAD S5B</td>
<td>Techniques of Radiologic Technology</td>
<td>2.5</td>
</tr>
<tr>
<td>RAD S5C</td>
<td>Techniques of Radiologic Technology</td>
<td>7.0</td>
</tr>
<tr>
<td>RAD S5D</td>
<td>Techniques of Radiologic Technology</td>
<td>7.0</td>
</tr>
<tr>
<td>RAD S5E</td>
<td>Techniques of Radiologic Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>RAD S6A</td>
<td>Theory of Radiologic Technology</td>
<td>4.0</td>
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<tr>
<td>RAD S6B</td>
<td>Radiographic Positioning</td>
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<td>RAD S6C</td>
<td>Radiologic Technology Seminar</td>
<td>1.0</td>
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<tr>
<td>RAD S6D</td>
<td>Theory of Radiologic Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>RAD S6E</td>
<td>Radiologic Technology Seminar</td>
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<tr>
<td>RAD S6F</td>
<td>Theory of Radiologic Technology</td>
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<tr>
<td>RAD S6G</td>
<td>Theory of Radiologic Technology</td>
<td>4.0</td>
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<td>RAD S6H</td>
<td>Theory of Radiologic Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>RAD 61A</td>
<td>Radiographic Positioning</td>
<td>3.0</td>
</tr>
<tr>
<td>RAD 61B</td>
<td>Radiographic Positioning</td>
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<tr>
<td>RAD 61C</td>
<td>Radiologic Technology Seminar</td>
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<tr>
<td>RAD 62A</td>
<td>Theory of Radiologic Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>RAD 62B</td>
<td>Radiographic Positioning</td>
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</tr>
<tr>
<td>RAD 62C</td>
<td>Radiologic Technology Seminar</td>
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<tr>
<td>RAD 63</td>
<td>Theory of Radiologic Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>RAD 64</td>
<td>Theory of Radiologic Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>RAD 91</td>
<td>Nursing Procedures</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Units: 77.0**

**NOTE:** ANAT 10A, and MEDI 90 may be taken prior to entering program.

**Admission Requirements:**

In addition to meeting Mt. San Antonio College’s academic standards for admission, applicants must be in good standing and satisfy the following requirements:

a) Applicant must be 18 years of age upon entrance into the program.

b) High school graduate or equivalent.

c) Possess a valid Social Security Card. This is a licensed profession, and a valid Social Security Number is required to obtain state certification and national licensure.

d) File a college application and be accepted as a student at Mt. San Antonio College.

e) Take the college placement examination which is used as an indicator. If you have already taken a college placement test within the past two years at another school, arrange to have your scores forwarded to the Technology and Health Division Office. If you were tested at Mt. San Antonio College, the Technology and Health Division Office will obtain the test scores as long as an “Application for Admission” is on file with the Admissions and Records Office. Arrangement should be made with the Service Center to schedule a date and time to take the college placement examination if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611 ext. 4265.

f) Complete the following prerequisite courses with a minimum grade of “C” in each course.

1. General High School Algebra (one year) or Introductory College Algebra (one semester) or MATH 51 (Elementary Algebra, or equivalent);

2. General High School Chemistry (one year) or Introductory College Chemistry (one semester) or CHEM 10 - Chemistry for Allied Health. Students must complete prerequisite courses before applying to the program.

**g) After completion of the prerequisites, submit an application for the Radiologic Technology Program to the Technology and Health Division Office (909) 594-5611, ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each summer intersession.

h) Forward two original transcripts of all coursework completed (high school, and other than Mt. San Antonio College courses). One transcript must be sent to Technology and Health Division Office and the other to Admissions and Records.

i) For students who possess a college degree, the English placement test is not required, however, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to Technology and Health Division Office and the other to Admissions and Records. If the courses were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts. Request the transcript for the Division Office be addressed as follows:

- Mt. San Antonio College Technology and Health Division Radiologic Technology Program 1100 North Grand Avenue Walnut CA 91789-1299

j) Make an appointment with an educational advisor to review general education requirements for graduation.

**Acceptance Requirements:**

a) A mandatory orientation meeting with the Radiologic Technology Department will be held during the spring semester. You will be contacted with date and time of orientation once you have been accepted.

b) A physical examination, including certain immunizations and drug testing is required as part of the physical examination for all radiologic technology students before entrance into the clinical setting. Forms and information will be provided at time of orientation.

c) All students will be required to pass a criminal background check prior to entering the clinical education phase (a valid Social Security Number is required to complete this process.)

**Selection Procedure:**

Selection of students is based upon the completion of the above admission requirements and date of application. The Department will make every effort to notify the applicant of acceptance by mail no less than one month prior to beginning of a program.

**Program Completion Requirements:**

a) In addition to the major requirements and general education, students must also complete a course in venipuncture for radiographers. This course is offered through Continuing Education but may be taken elsewhere with prior approval from the department.

b) A course in mammography is also offered in the final semester for graduate students and licensed radiographers. This course is optional.

**Working Environment:**

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions critical to patient safety
- Exposed to products containing latex.
Programs Leading to an Associates Degree

Required Skills and Physical Abilities:
In order to ensure student and patient safety and welfare, the radiologic technology student must have sufficient strength, motor coordination, manual dexterity, intellectual capacity, and sensory functions to be able to:

- a) Transport, move, lift, or transfer patients from a wheelchair or gurney to an x-ray table or to a patient bed.
- b) Lift arms above the head to move the x-ray tube assembly.
- c) Move, adjust, and manipulate portable and fluoroscopic equipment according to established procedures and standards of speed and accuracy while conducting radiographic examinations.
- d) Maneuver well enough to physically protect himself or herself from injury caused by patients exhibiting aggressive behaviors.
- e) Physically place patients in the proper positions for the examination according to established procedures and standards of speed and accuracy.
- f) Rapidly respond to situations involving the health and safety of patients, providing physical and emotional support to the patient during radiographic procedures, providing basic first aid and emergency care in the absence of or until a physician arrives.
- g) Function adequately under stressful situations related to technical and procedural standards of patient care situations.
- h) Hear well enough (average 30 decibels for both ears) to discriminate sounds and communication to patients, and to communicate individual needs of the patient’s condition and requirements of the procedure with speed and accuracy.
- i) Speak English clearly enough to explain and direct individuals remote from the location of the student.
- j) Calculate and select proper technical exposure factors according to the individual needs of the patient’s condition and requirements of the procedure with speed and accuracy.
- k) View and evaluate the recorded images of a radiograph for the purpose of identifying proper patient positioning, accurate procedural sequencing, proper exposure (and or “S” number), and other established technical qualities.

Real Estate
Business Administration Department
Major S0512
This program prepares students for employment following graduation. Students wishing a Bachelor’s degree (transfer program) should consult with an advisor to discuss transferability of courses. The requirements for a degree in real estate include the eight classes needed prior to applying to take the Real Estate Broker License Exam as well as several additional classes designed to strengthen the skills needed to succeed in a career in real estate.

Requirements for the Major
Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 52</td>
<td>Real Estate Practice, or</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 52D</td>
<td>Real Estate Practice</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 55</td>
<td>Real Estate Economics</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 81</td>
<td>Appraisal: Principles and Procedures</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>CSB 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
<td>CSU,UC</td>
</tr>
</tbody>
</table>

PLUS

<table>
<thead>
<tr>
<th>Group A</th>
<th>Select two (2), three (3) or four (4) courses from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSR 57</td>
<td>Income Tax Aspects of Real Estate Investments</td>
</tr>
<tr>
<td>BUSR 59</td>
<td>Real Estate Property Management</td>
</tr>
<tr>
<td>BUSR 60</td>
<td>Real Estate Investment Planning</td>
</tr>
<tr>
<td>BUSR 62</td>
<td>Mortgage Loan Broking and Lending</td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
</tr>
</tbody>
</table>

PLUS

<table>
<thead>
<tr>
<th>Group B</th>
<th>Select zero (0), one (1) or two (2) units from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
</tr>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
</tr>
<tr>
<td>BUSA 72</td>
<td>Bookkeeping - Accounting</td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

Real Estate Appraisal
Business Administration Department
Major S0513
This program prepares students for employment following graduation. Students wishing a Bachelor’s Degree (transfer program) should consult with an advisor to discuss transferability of courses.

Requirements for the Major
Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSR 81</td>
<td>Appraisal: Principles and Procedures</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>BUSR 82</td>
<td>Uniform Standards of Professional Appraisal Practice</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 83</td>
<td>Residential Appraisal</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>BUSR 84</td>
<td>Residential Appraisal: Case Studies</td>
<td>2.5</td>
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</table>

PLUS

Select seven (7) courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 55</td>
<td>Real Estate Economics</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 57</td>
<td>Income Tax Aspects of Real Estate Investments</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 59</td>
<td>Real Estate Property Management</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CSB 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
<td>CSU,UC</td>
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<td>INS 70</td>
<td>Elements of Construction</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Total Units: 31.5 - 32.5

Registered Veterinary Technology
Agricultural Sciences Department
Major S0105
The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The department offers a comprehensive agricultural sciences program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should check the lower division requirements in the catalog of the college or university which they plan to attend and also the semester and year in which courses are offered.

The following programs list all courses needed to satisfy major requirements. It is recommended that all students consult with the department chairperson or faculty advisor to file an educational plan. Students must file an educational plan with the Director of the Registered Veterinary Technology Program during the first year of study.

These programs are intended to prepare students for employment following graduation. Students desiring a Bachelor’s Degree (transfer program) should consult with the department chairperson, counselor or advisor to discuss transferability of courses.

This degree is designed to prepare students for careers as Registered Veterinary Technicians who will work under the supervision of licensed private organizations including veterinary hospitals, research vivariums, animal shelters, and other animal care agencies. Students who satisfactorily complete the requirements of this program are eligible to take the State of California Certifying Examination for Registered Veterinary Technicians.

Students wishing to be admitted to the Registered Veterinary Technology program must meet with the Director of the Registered Veterinary Technology program at least two weeks prior to the beginning of the semester in which enrollment shall begin.

Requirements for the Major
Required courses 1st year:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AGAN 1</td>
<td>Animal Science</td>
<td>3.0</td>
<td>CSU,UC</td>
</tr>
<tr>
<td>AGAN 2</td>
<td>Animal Nutrition</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>AGAN 51</td>
<td>Animal Handling and Restraint</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGAN 94</td>
<td>Animal Breeding</td>
<td>3.0</td>
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<tr>
<td>AGHE 54</td>
<td>Veterinary Office Procedures</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 55</td>
<td>Veterinary Office Procedures</td>
<td>3.0</td>
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<tr>
<td>AGLI 84</td>
<td>Veterinary Office Procedures</td>
<td>3.0</td>
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<td>AGHE 56</td>
<td>Veterinary Office Procedures</td>
<td>3.0</td>
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<tr>
<td>AGLI 85</td>
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<td>3.0</td>
<td></td>
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<tr>
<td>AGHE 57</td>
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<td>3.0</td>
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<td>AGLI 86</td>
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<td>AGHE 58</td>
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<td>3.0</td>
<td></td>
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<tr>
<td>AGLI 87</td>
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<td>AGHE 60</td>
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<td></td>
</tr>
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<td>AGLI 89</td>
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<td></td>
</tr>
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<td></td>
</tr>
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<td>AGLI 90</td>
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<td>3.0</td>
<td></td>
</tr>
<tr>
<td>AGHE 62</td>
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<td>3.0</td>
<td></td>
</tr>
<tr>
<td>AGLI 91</td>
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<td>3.0</td>
<td></td>
</tr>
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<td>AGHE 63</td>
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<td>3.0</td>
<td></td>
</tr>
<tr>
<td>AGLI 92</td>
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<td></td>
</tr>
<tr>
<td>AGHE 64</td>
<td>Veterinary Office Procedures</td>
<td>3.0</td>
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<tr>
<td>AGLI 93</td>
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<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

Total Units: 34.5 - 44.5

2009-10 Mt. San Antonio College Catalog
### Required courses 2nd year:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Institution(s)</th>
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</thead>
<tbody>
<tr>
<td>AGHE 60</td>
<td>Medical Nursing and Animal Care</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 61</td>
<td>Surgical Nursing</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 62A</td>
<td>Clinical Pathology</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 62B</td>
<td>Clinical Pathology</td>
<td>4.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 64</td>
<td>Veterinary Pharmacology</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 65</td>
<td>Veterinary Radiography</td>
<td>2.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 79</td>
<td>Laboratory Animal Medicine and Care</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 84A</td>
<td>Applied Animal Health Procedures</td>
<td>1.0</td>
<td>CSU</td>
</tr>
<tr>
<td>AGHE 84B</td>
<td>Applied Animal Health Procedures</td>
<td>1.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

### PLUS

**Select six (6) units from:**

- AGLI 12 - Exotic Animal Management 3.0
- AGLI 14 - Swine Production 3.0 CSU
- AGLI 16 - Horse Production 4.0 CSU, UC
- AGLI 17 - Sheep Production 3.0 CSU
- AGLI 18 - Horse Ranch Management 4.0 CSU
- AGLI 19 - Horse Hoof Care 2.0 CSU
- AGLI 30 - Beef Production 3.0 CSU
- AGPE 70 - Pet Shop Management 3.0
- AGPE 71 - Canine Management 3.0
- AGPE 72 - Feline Management 3.0
- AGPE 73 - Tropical and Coldwater Fish Management 2.0
- AGPE 74 - Reptile Management 2.0
- AGPE 76 - Aviculture - Cage and Aviary Birds 3.0

**Total Units:** 58.0

### Respiratory Therapy

**Respiratory Technology Department Major S1205**

The Respiratory Therapy Program, which is accredited by the Committee on Accreditation for Respiratory Care (COARC), is designed to train students to function as Respiratory Therapists.

Respiratory Therapy is the application of technical skills involving a complete understanding of cardiopulmonary physiology and recognition of various pathological conditions that alter the patient's ability to breathe effectively.

By applying medical gases under pressure - i.e., compressed air, oxygen, and other mixtures - to the airways through the use of various kinds of equipment, the therapist, under the direction of the physician, treats the diseased or ineffective respiratory system.

Some mechanical aptitude and manual dexterity is helpful in learning the operation of specialized equipment. This includes diagnostic apparatus which aids the physician in detecting cardiorespiratory diseases.

### Requirements for the Major

**Required courses:**

- RESD 50 - Theory and Principles of Respiratory Therapy 2.0 CSU
- RESD 51A - Respiratory Therapy Science 4.0 CSU
- RESD 51B - Respiratory Therapy Science 4.0 CSU
- RESD 52 - Pulmonary Anatomy and Pathology 3.0 CSU
- RESD 53 - Cardiopulmonary Pathophysiology 3.0 CSU
- RESD 55 - Adult Respiratory Intensive Care 3.0 CSU
- RESD 56A - Techniques of Respiratory Therapy 2.5 CSU
- RESD 56B - Techniques of Respiratory Therapy 6.0 CSU
- RESD 56C - Techniques of Respiratory Therapy 2.5 CSU
- RESD 56D - Techniques of Respiratory Therapy 6.0 CSU
- RESD 57A - Special Procedures for Respiratory Care 1.5 CSU
- RESD 57B - Special Procedures for Respiratory Care 1.5 CSU
- RESD 58 - Neonatal Intensive Care 3.0 CSU
- RESD 59 - Respiratory Therapeutic Modalities 3.0 CSU
- RESD 60 - Comprehensive Pulmonary Assessment 2.0 CSU
- RESD 61 - Current Issues in Respiratory Care 3.0 CSU

**Total Units:** 50.0

### Special Information

The completion of the Respiratory Therapy Program and receipt of a certificate documenting completion of required courses requires completion of the Associate Degree. The student may elect to pursue either the Associate in Science or Associate of Arts Degree.

All students entering the program must submit an educational plan showing the major course requirements with the general education requirements for the degree.

To remain in the program, students must maintain a "C" or better grade in all courses.

Upon completion of the Respiratory Therapy requirements, the student is given a certificate documenting completion. This certificate will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

### Entrance Requirements:

In addition to meeting Mt. San Antonio College’s academic standards for admission, applicants must be in good standing and satisfy the following requirements:

1) Applicant must be at least 18 years of age upon entrance into the program and must be a high school graduate or equivalent. Please provide copy of diploma as proof of high school completion.

2) File a college application and be accepted as a student at Mt. San Antonio College.

3) Applicant must take the College placement exams before taking any of the prerequisite or respiratory therapy courses.

**NOTE:** Testing is administered by the Assessment Center located in the Student Services Center, Building 9B. You may contact them at (909) 594-5611, ext. 4265, to set up an appointment.

If you have taken English and math at another college, please provide college transcripts.

For students who possess a college degree, the college placement examination is not required. However, it will be necessary for the applicant to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to the Respiratory Therapy Program Office and the other to the Admissions Office. If the degree was obtained at Mt. SAC, it is not necessary to request transcripts. Transcripts should be addressed as follows:

- Mt. San Antonio College Technology and Health Division Respiratory Therapy Program
- 1100 North Grand Avenue
- Walnut CA 91789-1389

4) Submit an application for the Respiratory Therapy Program to the Technology and Health Division Office (Bldg. 28A, Room 101E), (909) 594-5611, ext. 4265.

All applications are dated upon receipt.

It is highly recommended that students complete their general education requirements prior to entering the program.

### Foreign Transcripts:

All coursework taken outside of the United States must be analyzed by a designated agency for foreign transcript evaluation. No foreign course work will be accepted without this evaluation. It is the sole responsibility of the applying student to get the evaluation completed before entry into the program. Information for transcript evaluation is available in the Technology and Health Division.

**Selection Procedure:**

Selection for the Respiratory Therapy program is on a first-come/first-served basis. It is strongly recommended that the prerequisites are completed prior to entering the program. Completion is not, however, mandatory for acceptance.

### A.S. Degree Requirements

All students entering the Respiratory Therapy Program MUST complete all the major course requirements and the general education requirements necessary to complete the Associate Degree before a certificate documenting completion in Respiratory Therapy will be given. This certificate will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

**Other Requirements:**

All students will be required to complete a background check prior to entering the clinical education phase. A physical examination, including specific immunizations, is required of all candidates prior to beginning classes. These requirements are in accordance with healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing is required as a part of this physical examination. All Applicants are required to meet the Essential Functions for Success in the Respiratory Therapy Program.

### Physical Demands:

- Perform prolonged, extensive, or considerable standing/walking, lifting, positioning, pushing, and/or transferring patients
Programs Leading to an Associates Degree

- Possess the ability to perform fine motor movements with hands and fingers
- Possess the ability for extremely heavy effort (lift and carry at least 50 pounds or more)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

**Sensory Demands**
- Color vision: ability to distinguish and identify colors (may be corrected with adaptive devices)
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

**Working Environment:**
- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions related to end of life issues
- Exposed to products containing latex

**English Language Skills:**
Although proficiency in English is not a criteria for admission into the Respiratory Therapy Program, students are encouraged to be able to speak, write, and read English to complete classes successfully and to ensure safety for themselves and others.

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**Programs Leading to an Associates Degree**

**Sign Language/Interpreting**

**Sign Language Department**

**Major S0801**

The Mt. San Antonio College Interpreter Training Program is designed to prepare individuals for careers as Sign Language Interpreters. Interpreters are needed wherever communication happens between the hearing community and the Deaf and hard-of-hearing community. There are an endless number of settings in which this communication takes place. Interpreters are employed by school districts, cruise ship companies, corporations, government agencies, hospitals, colleges and universities, and a vast number of other organizations and private businesses.

Program Preparation: Preparation for the program includes fluency in American Sign Language demonstrated by the completion of the SIGN 104, American Sign Language 4, (or the equivalent skill) and English fluency demonstrated by the completion of ENGL 1A.

National Certification: There are many specialties within the field of Sign Language Interpreting, but the focus of this program is on preparing the interpreter generalist. Although requiring some type of certification is becoming more common in California, there are still many job opportunities for the precertified interpreter.

Completing the certificate in Sign Language/Interpreting does not make one a “Certified Interpreter”; however, graduates of this program are encouraged to apply for National Interpreting Certification (NIC) through the Registry of Interpreters for the Deaf (RID) at www.rid.org. Students who complete the required courses listed below and who also complete the graduation requirements of Mt. San Antonio College will be awarded the Associate of Science Degree in Sign Language/Interpreting.

**Requirements for the Major**

**Required courses:**
- SIGN 104 American Sign Language 5 4.0
- SIGN 108 Fingerspelling 2.0
- SIGN 201 Deaf Perspectives 3.0
- SIGN 202 American Deaf Culture 3.0 CSU,UC
- SIGN 210 American Sign Language Structure 3.0 CSU,UC
- SIGN 220 Translation: American Sign Language/English 3.0 CSU
- SIGN 221 Principles of Interpreting 3.0 CSU
- SIGN 225 Ethical Decision Making for Interpreters 2.0

**Plus**
- Select three (3) courses from:
  - SIGN 99 Special Projects in Sign Language/Interpreting 2.0
  - SIGN 238 Oral Transliteration 3.0
  - SIGN 240 Vocabulary Building for Interpreters 2.0 CSU
  - SIGN 250 Interpreting with Classifiers 1.5
  - SIGN 260 Video Interpreting 1.5

**Total Units**
40.0 - 43.0

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**Small Business Management**

**Accounting and Management Department**

**Major S0508**

This program is intended to prepare students for employment following graduation. Students wishing a Bachelor’s Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**
- BUSA 7 Principles of Accounting 5.0 CSU,UC
- BUSM 10 Principles of Continuous Quality Improvement 3.0
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSM 62 Human Resource Management 3.0
- BUSM 66 Small Business Management 3.0 CSU
- BUS 16 Principles of Marketing 3.0 CSU
- CISB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units**
30.0

**Recommended Electives:**
- BUSM 81 Work Experience in Business
- BUSM 85 Special Issues in Business
- BUSS 85 Special Issues in Marketing

**Television Production**

**Commercial and Entertainment Arts**

**Major S0602**

Students will gain experience in film-style production, remote and studio production. This course of study qualifies the student for an Associate of Science degree in television production, and is designed to prepare a student for an entry-level job in the industry in a variety of areas. This includes not only skills used in production, but also preproduction, editing, financial and legal affairs.

**Requirements for the Major**

**Required courses:**
- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 14 Media Aesthetics 3.0
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 19A Beginning Television Production 3.0 CSU
- R-TV 19B Advanced Television Production 3.0 CSU
- R-TV 100A Work Experience in Film and TV 2.0

**Plus**
- Select twelve (12) units from:
  - R-TV 05 Radio-TV Newswriting 3.0
  - R-TV 18 Writing for Television/Film 3.0 CSU
  - R-TV 20 Television News Production 3.0
  - R-TV 21 Remote Television Production and Engineering 3.5
  - R-TV 22 Editing for Film and Television 3.0

**Total Units**
29.0

**Recommended Electives:**
- ANIM 115 Storyboarding
- R-TV 26 Current Issues in Entertainment Law
- THTR 17 Acting for Television
Welding
Air Conditioning, Water & Welding Technologies
Major S0919

This program is designed to prepare the student for employment in the broad field of welding. It leads to occupations in manufacturing and repair and helps prepare the student for positions in supervision.

Courses in the welding curriculum prepare students for welding certification. The college is a testing agency for the City of Los Angeles and is authorized to administer the performance test for the Structural Welding Certificate. There is a $50 charge for students and $60 for non-students to take this test. Topics of the written portion of the test which is administered by the city are reviewed in various welding courses offered by the college.

This program is intended to prepare students for employment following graduation. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

<table>
<thead>
<tr>
<th>Requirements for the Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses:</td>
</tr>
<tr>
<td>WELD 40 Introduction to Welding 2.0 CSU</td>
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<tr>
<td>WELD 50 Oxyacetylene Welding 2.0</td>
</tr>
<tr>
<td>WELD 51 Basic Electric Arc Welding 2.0</td>
</tr>
<tr>
<td>WELD 53A Welding Metallurgy 3.0 CSU</td>
</tr>
<tr>
<td>WELD 70A Beginning Arc Welding 3.0</td>
</tr>
<tr>
<td>WELD 70B Intermediate Arc Welding 3.0</td>
</tr>
<tr>
<td>WELD 70C Certification for Welders 3.0</td>
</tr>
<tr>
<td>WELD 80 Fabrication and Construction Welding 3.0</td>
</tr>
<tr>
<td>Total Units 21.0</td>
</tr>
</tbody>
</table>

Recommended Electives:
- BUSM 61 Business Organization and Management
- EDT 11 Technical Engineering Drawing I
- MFG 70 Technical Mathematics - Manufacturing Applications
- WELD 30 Metal Sculpture
- WELD 60 Print Reading and Computations for Welders
- WELD 81 Pipe and Tube Welding
### Programs Leading to an Associates Degree

#### ASSOCIATE OF ARTS DEGREES (A.A.)

**Liberal Arts and Sciences with area of emphasis in one of the following:**
- Business; Communication; Fine Arts; Humanities; Information Technology; Kinesiology and Wellness; Language Arts; Mathematics; Music; Natural Sciences; and Social & Behavioral Sciences

Mt. San Antonio College's Associate of Arts degrees are designed to meet the needs of students interested in graduating with a two-year college degree by studying in a specific area of emphasis. These students are not intending to pursue a specific occupational major, nor are they necessarily planning to transfer. However, careful educational planning with a counselor or an educational advisor will help ensure that, if a student subsequently decides to transfer at a later date to a four-year college or university, he or she would have a solid foundation in the transfer process. Transfer students may also become eligible for a Certificate of Achievement in CSU General Education Breadth or Intersegmental General Education Transfer Curriculum (IGETC) by completing requirements shown on pages 102-110 of this catalog.

To qualify for an Associate of Arts degree, students must complete all the graduation requirements as listed on page 64 of this catalog. In addition, students choose one of eleven "areas of emphasis" and complete the appropriate requirements as shown in this section. Courses listed within an area of emphasis may also be used to satisfy general education requirements, with additional elective courses chosen by the student to complete the 60-unit degree requirement. The printed degree and transcript notation will read "Associate of Arts in Liberal Arts and Sciences, Emphasis in (specific area)."

**Note:** Students wishing to transfer to the California State University system may be required to select additional General Education courses from either the CSU General Education pattern found on page 104 of this catalog or from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 108 of this catalog.

Students wishing to transfer to the University of California system may be required to select additional General Education courses only from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 108 of this catalog.

All students wishing to transfer are strongly advised to meet with a counselor or educational advisor to determine the most effective selection of general education courses to facilitate transfer to either the California State University system or to the University of California in specific majors.

### Area of Emphasis Requirements

**Area of Emphasis Requirements**

**Choose one**

**Associate of Arts Degree in Liberal Arts and Sciences**

**Emphasis in Business**

**Degree A8981**

An emphasis in Business provides the student with an understanding of business and its role in society. Students will have knowledge of various business functions and economic analysis. Upon completion of this degree students will be prepared for an entry level job in the business world.

**Core/Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
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<tr>
<td>BUSC 1A</td>
<td>Principles of Economics</td>
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<tr>
<td>BUSC 1B</td>
<td>Principles of Economics</td>
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<td>BUSC 1BH</td>
<td>Principles of Economics</td>
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<td>CISS 15</td>
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<td>COMP 12</td>
<td>Office Computer Applications</td>
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<tr>
<td>CISS 11</td>
<td>Computer Information Systems</td>
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</table>

Plus select a minimum of three courses from the following which should be selected in consultation with a counselor or educational advisor.

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<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
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</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
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</table>

**Elective Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
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<tr>
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<td>Principles of Accounting</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSB 8</td>
<td>Principles of Accounting</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSU 17</td>
<td>Applied Business Statistics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 18.5 - 23.0

### Associate of Arts Degree in Liberal Arts and Sciences

**Emphasis in Communication**

**Degree A8982**

An emphasis in Communication provides the student with an understanding of communication strategies, reasoning, logic, and critical analysis as it relates to public and interpersonal communication, and the interrelationship of mass media and society. In addition to the foundational Communication courses, students select either a Performance Studies or Intercultural Communications track.

**Core/Required Courses (12 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<td>SPCH 1A</td>
<td>Public Speaking</td>
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<tr>
<td>SPCH 1AH</td>
<td>Public Speaking - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 26</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 26H</td>
<td>Interpersonal Communication - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>JOUR 100</td>
<td>Mass Media and Society</td>
<td>3.0</td>
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<tr>
<td>SPCH 1B</td>
<td>Intermediate Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 20</td>
<td>Argumentation and Debate</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 20H</td>
<td>Argumentation and Debate - Honors</td>
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</tbody>
</table>

**PLUS**

Choose one (1) of the following tracks:

**Performance Studies Track**

(6 additional units selected from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 3</td>
<td>Voice and Diction</td>
<td>3.0</td>
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<td>SPCH 4</td>
<td>Oral Interpretation of Literature</td>
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<tr>
<td>SPCH 5</td>
<td>Readers Theater</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 1B</td>
<td>Intermediate Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Intercultural Track**

(6 additional units selected from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 7</td>
<td>Intercultural Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 20</td>
<td>Sociology of Ethnic Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 20H</td>
<td>Sociology of Ethnic Relations - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 15</td>
<td>Major World Religions</td>
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</tr>
<tr>
<td>PHIL 15H</td>
<td>Major World Religions - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>JOUR 107</td>
<td>Race, Culture, Sex and Mass Media Images</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 18.0

### Associate of Arts Degree in Liberal Arts and Sciences

**Emphasis in Fine Arts**

**Degree A8983**

An emphasis in Fine Arts provides the student with an understanding of the practices and theories of traditional and contemporary two and three-dimensional studio arts and an introduction to the history of western art. In addition to the foundation courses, students select studio electives.

**Core/Required Courses (24 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTD 17A</td>
<td>Drawing: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 17A</td>
<td>Drawing: Life</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 20</td>
<td>Design: Two Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 21</td>
<td>Design: Color and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 22</td>
<td>Design: Three Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 25A</td>
<td>Painting: Beginning</td>
<td>3.0</td>
</tr>
<tr>
<td>AHIS 4</td>
<td>History of Western Art: Prehistoric Through Gothic</td>
<td>3.0</td>
</tr>
</tbody>
</table>
AHIS 4H History of Western Art: Prehistoric Through Gothic - Honors

AHIS 5 History of Western Art: Renaissance Through Modern

AHIS 5H History of Western Art: Renaissance Through Modern - Honors

Total Units 24.0

for Area of Emphasis

Recommended two studio electives
(3.0 units selected from the following):

ANIM 101 Drawing: Gesture and Figure
ARTB 14 Basic Studio Arts
ARTC 165 Illustration
ARTC 70 Computer Graphics: Introduction
ARTD 16 Drawing: Perspective
ARTD 15B Drawing: Beginning
ARTD 17B Drawing: Life
ARTD 27 Painting: Watercolor
ARTD 43 Printmaking: Silk-screen and Intaglio
ARTD 44 Printmaking: Relief and Lithography
ARTG 20 Art, Artists and Society
ARTG 21A Introduction to Exhibition Production
ARTS 30A Ceramics: Beginning
ARTS 33 Ceramics: Hand Construction
ARTS 40A Sculpture: Beginning
ARTS 41A Sculpture: Life
PHOT 10 Basic Digital and Film Photography

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Humanities

An emphasis in Humanities provides the student with an understanding of the interrelationship between art, religion, history, music, literature and the dramatic arts, and philosophical and political thought. This emphasis also strengthens the understanding of other cultures through the study of a foreign language.

Select a total of 18 units choosing courses from at least 5 of the following 7 categories:

Music:

MUS 11B Music Literature Survey

MUS 12 History of Jazz

MUS 13 Introduction to Music Appreciation

MUS 14A World Music

MUS 14B American Folk Music

MUS 15 Rock Music History and Appreciation

Art History:

AHIS 3 History of Women and Gender in Art

AHIS 3H History of Women and Gender in Art - Honors

AHIS 4 History of Western Art: Prehistoric Through Gothic

AHIS 4H History of Western Art: Prehistoric Through Gothic - Honors

AHIS 5 History of Western Art: Renaissance Through Modern

AHIS 5H History of Western Art: Renaissance Through Modern - Honors

AHIS 6 History of Modern Art

AHIS 6H History of Modern Art - Honors

AHIS 9 History of Asian Art

AHIS 10 A History of Greek and Roman Art and Architecture

AHIS 11 History of African, Oceanic and Native American Art

AHIS 12 History of Pre Columbian Art

AHIS 12H History of Pre Columbian Art - Honors

Philosophy and Political Science:

PHIL 12 Ethics

PHIL 12H Ethics - Honors

PHIL 20A History of Western Philosophy

PHIL 20B History of Western Philosophy

POLI 5 Political Science Theory

POLI 9 Introduction to International Relations

English and Dramatic Arts Literatures:

FRCH 60 French Culture Through Cinema

ITAL 60 Italian Culture Through Cinema

LIT 10 Survey of Shakespeare

LIT 11A World Literature

LIT 11B World Literature

LIT 15 Introduction to Cinema

SPCH 4 Oral Interpretation of Literature

THTR 10 History of Theater Arts

Religion and Literature:

PHIL 15 Major World Religions

PHIL 15H Major World Religions - Honors

PHIL 36 Introduction to Mythology

LIT 46 The Bible as Literature: Old Testament

LIT 47 The Bible as Literature: New Testament

History:

HIST 3 History of World Civilization

HIST 3H History of World Civilization - Honors

HIST 4 History of World Civilization - Honors

HIST 4H History of World Civilization - Honors

HIST 10 History of Asia

HIST 11 History of Asia

HIST 15 The Wild West - A History, 1800-1890

HIST 19 History of Mexico

HIST 35 History of Africa

HIST 44 History of Native Americans

Foreign Languages:

CHIN 2 Continuing Elementary Chinese

CHIN 3 Intermediate Chinese

FRCH 2 Continuing Elementary French

FRCH 3 Intermediate French

GERM 2 Continuing Elementary German

GERM 3 Intermediate German

ITAL 2 Continuing Elementary Italian

ITAL 3 Intermediate Italian

Recommended electives:

HUMA 1 The Humanities

STID 100 Student Achievement

STID 100A Student Achievement and Fundamentals of Learning

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Information Technology

Programs Leading to an Associates Degree

Degree A8985

An emphasis in Information Technology provides the student with an understanding of software development, database technologies, operating systems, networks, and network security.

Information Technology Basics

(3.5 - 4 units from the following):

CISB 11 Computer Information Systems

CISB 15 Microcomputer Applications

COMP 12 Office Computer Applications

Software Development

(4 units from the following):

CISP 11 Programming in Visual Basic

CISP 21 Programming in Java

CISP 31 Programming in C and

CISP 41 Programming in C#

CISW 21 Secure Client Side Web Programming

CISW 24 Secure Server Side Web Programming

Database Technology

(4 units from the following):

CISO 11 Database Management

- Microcomputers
# Programs Leading to an Associates Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD 21</td>
<td>SQL Server</td>
<td>4.0</td>
</tr>
<tr>
<td>CSD 31</td>
<td>Database Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Operating Systems and Networking (4 units selected from the following):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CISM 11</td>
<td>Telecommunications/Networking</td>
<td>4.0</td>
</tr>
<tr>
<td>CISM 21</td>
<td>Windows Operating System</td>
<td>4.0</td>
</tr>
<tr>
<td>CISM 31</td>
<td>Linux Operating System</td>
<td>4.0</td>
</tr>
<tr>
<td>Security (4 units selected from the following):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CISS 13</td>
<td>Principles of Information</td>
<td>4.0</td>
</tr>
<tr>
<td>Total Units</td>
<td>19.5 – 20.0</td>
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</tbody>
</table>

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISM 11</td>
<td>Systems Analysis and Design</td>
<td>3.5</td>
</tr>
<tr>
<td>COMP 20</td>
<td>Word for the Business</td>
<td>4.0</td>
</tr>
<tr>
<td>COMP 50</td>
<td>Desktop Presentations using PowerPoint</td>
<td>4.0</td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSS 36</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>SL 2</td>
<td>Service Learning in Networking</td>
<td>1.0</td>
</tr>
<tr>
<td>SPCH 26</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 26H</td>
<td>Interpersonal Communication - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>STDY 100</td>
<td>Student Achievement and Fundamentals of Learning</td>
<td>3.0</td>
</tr>
</tbody>
</table>

## Associate of Arts Degree in Liberal Arts and Sciences

### Emphasis in Kinesiology and Wellness

Degree A8967

An emphasis in Kinesiology and Wellness provides the student with an understanding of physical education, health promotion, and the mechanics of human body movement. In addition to the foundational physical education and movement courses, students select courses from a scientific and nutrition and a behavioral development and diversity cluster.

**Cluster 1: Physical Education and Movement (minimum of 6 units selected from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 1</td>
<td>First Aid and CPR</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>Advanced First Aid/CPR/ Emergency Response</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 13</td>
<td>Sports officiating</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 17</td>
<td>Introduction to Physical Education</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 19</td>
<td>Introduction to Care/ Prevention of Activity/Sports-Related Injuries</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 34</td>
<td>Fitness for Living</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 39</td>
<td>Techniques of Fitness Testing</td>
<td>2.0</td>
</tr>
<tr>
<td>PE 44</td>
<td>Theory of Coaching</td>
<td>3.0</td>
</tr>
<tr>
<td>DN-T 18</td>
<td>Introduction to Dance</td>
<td>3.0</td>
</tr>
<tr>
<td>DN-T 20</td>
<td>History and Appreciation of Dance</td>
<td>3.0</td>
</tr>
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</table>

**Cluster 2: Scientific and Nutrition Background (minimum of 3 units selected from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
<td>Human Anatomy</td>
<td>5.0</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
<td>Human Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 10</td>
<td>Chemistry for Allied Health Majors</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
<td>Introduction to General Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>MICR 1</td>
<td>Principles of Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>or</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
<td>General Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>PSYC 1B</td>
<td>Biological Psychology</td>
<td>3.0</td>
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<tr>
<td>BIOL 1</td>
<td>General Biology</td>
<td>4.0</td>
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<tr>
<td>BIOL 5</td>
<td>Contemporary Health Issues</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>Human Reproduction, Development and Aging</td>
<td>3.0</td>
</tr>
<tr>
<td>NF 10</td>
<td>Nutrition for Personal Health and Wellness</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>Essentials of Nutrition</td>
<td>3.0</td>
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</table>

**Cluster 3: Behavioral Development and Diversity (minimum of 3 units selected from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
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<tr>
<td>PSYC 26</td>
<td>Psychology of Sexuality</td>
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<tr>
<td>PSYC 3</td>
<td>Introduction to Research Methods in Psychology</td>
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</tr>
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</table>

**Associate of Arts Degree in Liberal Arts and Sciences**

### Emphasis in Language Arts

Degree A8987

An emphasis in Language Arts provides the student with an understanding of the acquisition of language with a focus on reading, writing, listening, and speaking within a diverse environment. In addition to the foundational language acquisition courses, students select personal options that will strengthen their individual interests and goals within Language Arts.

**Language Acquisition (minimum 9 units selected from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHILD 51</td>
<td>Early Literacy in Child Development</td>
<td>3.0</td>
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<tr>
<td>ENGL 1C</td>
<td>Critical Thinking and Writing</td>
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<tr>
<td>or</td>
<td>Critical Thinking and Logical Writing</td>
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</tr>
<tr>
<td>PHIL 9</td>
<td>Critical Thinking and Logical Writing</td>
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</tr>
<tr>
<td>ENGL 81</td>
<td>Language Acquisition</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>Analysis and Critical Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>READ 100</td>
<td>Reading Tutoring for Elementary</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>Students Through Service Learning</td>
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</table>

**Language Arts and Diversity (minimum 6 units selected from the following):**

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
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<td>SPAN 1</td>
<td>Elementary Spanish</td>
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<tr>
<td>SPAN 2</td>
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<tr>
<td>SPAN 3</td>
<td>Intermediate Spanish</td>
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</tr>
<tr>
<td>SPAN 4</td>
<td>Continuing Intermediate Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN 5</td>
<td>Advanced Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN 6</td>
<td>Continuing Advanced Spanish</td>
<td>4.0</td>
</tr>
<tr>
<td>SPAN 11</td>
<td>Spanish for the Spanish Speaking</td>
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</tr>
<tr>
<td>SPAN 12</td>
<td>Continuing Spanish for the Spanish Speaking</td>
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<tr>
<td>SPAN 25</td>
<td>Spanish Literature</td>
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<tr>
<td>SPAN 53</td>
<td>Conversational Spanish</td>
<td>3.0</td>
</tr>
<tr>
<td>SPAN 54</td>
<td>Conversational Spanish</td>
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<tr>
<td>FRCH 1</td>
<td>Elementary French</td>
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<tr>
<td>FRCH 2</td>
<td>Continuing Elementary French</td>
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<tr>
<td>FRCH 3</td>
<td>Intermediate French</td>
<td>4.0</td>
</tr>
<tr>
<td>FRCH 4</td>
<td>Continuing Intermediate French</td>
<td>4.0</td>
</tr>
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<td>FRCH 5</td>
<td>Advanced French</td>
<td>4.0</td>
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<td>FRCH 52</td>
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<td>FRCH 53</td>
<td>Continuing Conversational French</td>
<td>3.0</td>
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<tr>
<td>FRCH 54</td>
<td>Advanced Conversational French</td>
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<tr>
<td>ITAL 1</td>
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<tr>
<td>ITAL 2</td>
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<td>ITAL 3</td>
<td>Intermediate Italian</td>
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<tr>
<td>ITAL 4</td>
<td>Continuing Intermediate Italian</td>
<td>4.0</td>
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<tr>
<td>ITAL 5</td>
<td>Advanced Italian</td>
<td>4.0</td>
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<tr>
<td>ITAL 6</td>
<td>Continuing Advanced Italian</td>
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<td>ITAL 52</td>
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<tr>
<td>ITAL 53</td>
<td>Continuing Conversational Italian</td>
<td>3.0</td>
</tr>
<tr>
<td>ITAL 54</td>
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<td>GERMAN 1</td>
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<td>CHINESE 1</td>
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<tr>
<td>CHINESE 2</td>
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<tr>
<td>CHINESE 3</td>
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<td>CHINESE 4</td>
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</tr>
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<td>JAPANESE 1</td>
<td>Elementary Japanese</td>
<td>4.0</td>
</tr>
<tr>
<td>JAPANESE 2</td>
<td>Continuing Elementary Japanese</td>
<td>4.0</td>
</tr>
<tr>
<td>JAPANESE 3</td>
<td>Intermediate Japanese</td>
<td>4.0</td>
</tr>
</tbody>
</table>
Chld 61 Language Arts and Art Media 3.0

LIT 40 Children's Literature 3.0

LIT 6A Survey of English Literature 3.0

JOUR 108 Writing for Public Relations 3.0

JOUR 102 Intermediate News Writing 3.0

JOUR 101 Beginning News Writing 3.0

ENGL 9 Writing the Personal Journal 3.0

ENGL 8B Creative Writing - Poetry 3.0

ENGL 1BH English - Introduction 3.0

ENGL 1B English - Introduction 3.0

Personal Options

CHLD 50 Multicultural Education: 3.0

LIT 25 Contemporary Mexican American Literature 3.0

LIT 33 Images of Women in Literature 3.0

LIT 102 Intermediate News Writing 3.0

LIT 108 Writing for Public Relations 3.0

LIT 1 Early American Literature 3.0

LIT 2 Modern American Literature 3.0

LIT 6A Survey of English Literature 3.0

LIT 6B Survey of English Literature 3.0

LIT 40 Children's Literature 3.0

SPCH 4 Oral Interpretation of Literature 3.0

CHLD 61 Language Arts and Art Media for Young Children 3.0

Total Units 18.0

Programs Leading to an Associates Degree

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Mathematics

Degree A8989

An emphasis in Mathematics provides the student with an understanding of college level mathematics. In addition to the foundational calculus courses, students may select from computer science programming options.

Core/Required Courses

(minimum 18 units selected from the following with at most two CSCI courses):

MATH 130 College Algebra 3.0

MATH 140 Calculus for Business 4.0

MATH 150 Trigonometry 3.0

MATH 160 Precalculus Mathematics 4.0

MATH 180 Calculus and Analytic Geometry 4.0

MATH 181 Calculus and Analytic Geometry 5.0

MATH 280 Calculus and Analytic Geometry 4.0

MATH 285 Linear Algebra 5.0

CSCI 110 Fundamentals of Computer Science 3.5

CSCI 140 C++ Language and Object Development 4.0

CSCI 145 Java Language and Object Oriented Programming 4.0

Recommended Electives:

MATH 100 Survey of College Mathematics 3.0

MATH 110 Elementary Statistics 3.0

MATH 110H Elementary Statistics - Honors 3.0

MATH 245 A Transition to Advanced Mathematics 3.0

MATH 120 Finite Mathematics 3.0

CHEM 50 General Chemistry I 5.0

CHEM 50H General Chemistry I - Honors 5.0

CHEM 51 General Chemistry II 5.0

PHYS 4A Engineering Physics 5.0

PHYS 4B Engineering Physics 5.0

PHYS 4C Engineering Physics 5.0

Total Units 18.0 - 20.0

for Area of Emphasis

Recommended Electives:

MUS 11B Music Literature Survey 3.0

MUS 16 Individual Instruction (every semester) 3.0

MUS 9 Introduction to Music Technology 3.0

for Area of Emphasis

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Music

Degree A8989

An emphasis in Music provides the student with an understanding of music theory, harmony, and the history of western music. In addition to the foundational Music courses, students select courses in piano and a performance ensemble.

Core/Required Courses (15 units)

MUS 2 Music Theory 3.0

MUS 3A Harmony 3.0

MUS 5A Musicianship 1.0

MUS 11A Music Literature Survey 3.0

MUS 11B Music Literature Survey 3.0

MUS 22 Conducting 1.0

Piano (2 units selected from the following):

MUS 11A Elementary Class Piano 1.0

MUS 17B Intermediate Class Piano 1.0

MUS 18 Advanced Class Piano 1.0

Performance Ensemble

(1-3 units selected from the following):

MUS 36 Concert and Community Band 2.0

MUS 38 Ensemble 1.0

MUS 39 Laboratory Band 2.0

MUS 40 Pep Band 1.0

MUS 41 Jazz Ensemble 3.0

MUS 42 Chamber Singers 3.0

MUS 43 Mt. SAC Singers 2.0

MUS 44 Men's Vocal Ensemble 2.0

MUS 45 Wind Ensemble 2.0

Total Units 18.0 - 20.0

for Area of Emphasis

Recommended Electives:

MUS 11B Music Literature Survey 3.0

MUS 16 Individual Instruction (every semester) 3.0

MUS 9 Introduction to Music Technology 3.0

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Natural Sciences

Degree A8988

An emphasis in Natural Sciences provides the student with an understanding of living and non-living systems and promotes an appreciation of the methodologies and tools of science. Students may select courses that focus on a specific major and then select complementary courses to strengthen their selected focus or they may select courses that strengthen and broaden their overall understanding of the Natural Sciences.

Select a minimum of 18 units from the following:

BIOL 2 Plant & Animal Biology 4.0

BIOL 4 Biology for Majors 4.0

BIOL 4H Biology for Majors - Honors 4.0

BIOL 8 Cell and Molecular Biology 4.0

BTNY 3 Plant Structures, Functions and Diversity 5.0

MUS 36 Concert and Community Band 2.0

MUS 38 Ensemble 1.0

MUS 39 Laboratory Band 2.0

MUS 40 Pep Band 1.0

MUS 41 Jazz Ensemble 3.0

MUS 42 Chamber Singers 3.0

MUS 43 Mt. SAC Singers 2.0

MUS 44 Men's Vocal Ensemble 2.0

MUS 45 Wind Ensemble 2.0

Total Units 18.0 - 20.0

for Area of Emphasis

Recommended Electives:

MUS 11B Music Literature Survey 3.0

MUS 16 Individual Instruction (every semester) 3.0

MUS 9 Introduction to Music Technology 3.0

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Music

Degree A8989

An emphasis in Music provides the student with an understanding of music theory, harmony, and the history of western music. In addition to the foundational Music courses, students select courses in piano and a performance ensemble.

Core/Required Courses (15 units)

MUS 2 Music Theory 3.0

MUS 3A Harmony 3.0

MUS 5A Musicianship 1.0

MUS 11A Music Literature Survey 3.0

MUS 11B Music Literature Survey 3.0

MUS 22 Conducting 1.0

Piano (2 units selected from the following):

MUS 11A Elementary Class Piano 1.0

MUS 17B Intermediate Class Piano 1.0

MUS 18 Advanced Class Piano 1.0

Performance Ensemble

(1-3 units selected from the following):

MUS 36 Concert and Community Band 2.0

MUS 38 Ensemble 1.0

MUS 39 Laboratory Band 2.0

MUS 40 Pep Band 1.0

MUS 41 Jazz Ensemble 3.0

MUS 42 Chamber Singers 3.0

MUS 43 Mt. SAC Singers 2.0

MUS 44 Men's Vocal Ensemble 2.0

MUS 45 Wind Ensemble 2.0

Total Units 18.0 - 20.0

for Area of Emphasis

Recommended Electives:

MUS 11B Music Literature Survey 3.0

MUS 16 Individual Instruction (every semester) 3.0

MUS 9 Introduction to Music Technology 3.0

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Natural Sciences

Degree A8988

An emphasis in Natural Sciences provides the student with an understanding of living and non-living systems and promotes an appreciation of the methodologies and tools of science. Students may select courses that focus on a specific major and then select complementary courses to strengthen their selected focus or they may select courses that strengthen and broaden their overall understanding of the Natural Sciences.

Select a minimum of 18 units from the following:

BIOL 2 Plant & Animal Biology 4.0

BIOL 4 Biology for Majors 4.0

BIOL 4H Biology for Majors - Honors 4.0

BIOL 8 Cell and Molecular Biology 4.0

BTNY 3 Plant Structures, Functions and Diversity 5.0

MUS 36 Concert and Community Band 2.0

MUS 38 Ensemble 1.0

MUS 39 Laboratory Band 2.0

MUS 40 Pep Band 1.0

MUS 41 Jazz Ensemble 3.0

MUS 42 Chamber Singers 3.0

MUS 43 Mt. SAC Singers 2.0

MUS 44 Men's Vocal Ensemble 2.0

MUS 45 Wind Ensemble 2.0

Total Units 18.0 - 20.0

for Area of Emphasis

Recommended Electives:

MUS 11B Music Literature Survey 3.0

MUS 16 Individual Instruction (every semester) 3.0

MUS 9 Introduction to Music Technology 3.0
Programs Leading to an Associates Degree

Associate of Arts Degree in Liberal Arts and Sciences

Emphasis in Social & Behavioral Sciences
Degree A8991

An emphasis in Social & Behavioral Sciences provides the student with an understanding of statistics, cultural and gender diversity, the development of the person, and biology as it relates to behavior or society.

Cluster 1: Statistics Background
(3-4 units selected from the following):
MATH 110 Elementary Statistics 3.0
or
MATH 110H Elementary Statistics - Honors 3.0
PSYC 10 Statistics 4.0
for the Behavioral Sciences

Cluster 2: Cultural & Gender Diversity
(minimum of 3 units selected from the following):
ANTH 30 The Native American 3.0
ANTH 5 Principles of Cultural Anthropology 3.0
or
ANTH 22 General Cultural Anthropology 3.0
JOUR 100 Mass Media and Society 3.0
JOUR 101 Race, Culture, Sex and Mass Media Images 3.0
POLI 25 Politics of the Mexican American 3.0
POLI 35 African American Politics 3.0
SPCH 7 Intercultural Communication 3.0
HIST 36 Women in American History - Beyond the Stereotypes 3.0
BIO 15 Human Sexuality 3.0
or
BIO 15H Human Sexuality - Honors 3.0
LIT 33 Images of Women in Literature 3.0
PSYC 25 The Psychology of Women 3.0
PSYC 26 Psychology of Sexuality 3.0
SOC 5 Introduction to Criminology 3.0
SOC 14 Marriage and the Family 3.0
SOC 20 Sociology of Ethnic Relations 3.0
or
SOC 20H Sociology of Ethnic Relations - Honors 3.0

Cluster 3: Development of the Person
(minimum of 3 units selected from the following):
BIO 5 Contemporary Health Issues 3.0
BIO 13 Human Reproduction, Development and Aging 3.0
CHLD 1 Child, Family and Community 3.0
CHLD 10 Child Growth and Development 3.0
or
CHLD 10H Child Growth and Development - Honors 3.0
PSYC 14 Developmental Psychology 3.0
SOC 2 Sociology 3.0
or
SOC 2H Sociology - Honors 3.0
SOC 4 Introduction to Gerontology 3.0
SOC 15 Child Development 3.0

Cluster 4: Biology as it Relates to Behavior or Society
(minimum of 3 units selected from the following):
ANTH 1 Biological Anthropology 3.0
BIOL 6 Humans and the Environment 3.0
BIOL 17 Neurobiology and Behavior 3.0
PSYC 1B Biological Psychology 3.0
Plus additional units taken from any courses in Clusters 2-4 above for a total of at least 18 units.

Total Units 18.0
for Area of Emphasis

Students who decide to major in the Social and Behavioral Sciences are strongly encouraged to gain a strong research methods background by taking PSYC 3 Introduction to Research Methods in Psychology 4.0 or LIBR 1 Information Resources and Research Methods 3.0.

Other recommended electives include:

ANTH 3 Archaeology 3.0
BUSM 60 Human Relations in Business 3.0
FCS 41 Life Management 3.0
COUN 5 Career/Life Planning 3.0
COUN 51 Career Planning 1.0
CHLD 1 Child, Family and Community 3.0
CHLD 73 Infant/Toddler Care and Development 3.0
CHLD 85 Infants At Risk 3.0
LIT 15 Introduction to Cinema 3.0
LIT 20 African American Literature 3.0
LIT 25 Contemporary Mexican American Literature 3.0
LIT 3 Multicultural American Literature 3.0
PSYC 17 Introduction to Human Services 3.0
PSYC 19 Abnormal Psychology 3.0
PSYC 33 Psychology for Effective Living 3.0
SPCH 26 Intercultural Communication 3.0
or
SPCH 26H Intercultural Communication - Honors 3.0
SL 1 Service Learning/Seminar for Health Occupations 6.0
or
SL 2 Linked Service Learning 1.0
or
SL 3 Service Learning/Seminar in Community Involvement 3.0
or
SL 4 Service Learning and Community 1.0
PROGRAMS OF STUDY LEADING TO TRANSFER

Mt. San Antonio College offers lower division transfer courses to meet the requirements for most baccalaureate majors offered by accredited colleges and universities in the United States. Students should meet with a counselor or an educational advisor in the Student Services Center for information about transfer courses in their major. It is advised that the student visit the Counseling Center in advance of the next registration period.

Students should develop an educational plan by the end of their second semester. Students with declared majors are encouraged to consult with an educational advisor or a counselor in the Counseling Center. Students who are undecided are encouraged to see a counselor or enroll in COUN 5 – Career/Life Planning.

Listed below are majors that may be offered at various campuses of the California State University (CSU) and/or the University of California (UC). Although a serious attempt was made to make this list a comprehensive one, it is not an exact list of every major available. To find out exactly what major is available at any particular university, please visit the Counseling Center. All of the CSU and UC catalogs are available in the Career and Transfer Center for your use. If you are undecided about which major is right for you, please make an appointment with a counselor in the Counseling Center, Ext. 4380.

Students who are preparing to transfer, especially to a UC campus, are strongly encouraged to balance their studies by taking both general education courses and lower division (freshman/sophomore) major courses. Completing only general education courses, especially for high unit majors, such as business administration, natural sciences, math or engineering, may not be in a student’s best interest. Additional coursework may be completed as elective courses, to complement or supplement, a major course of study.

**UNIVERSITY TRANSFER MAJOR OPTIONS**

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<tr>
<th>Liberal Arts</th>
<th>Social Sciences</th>
<th>Natural Sciences &amp; Math</th>
<th>Life Sciences</th>
<th>Physical Sciences</th>
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<td>Law and Society</td>
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<td>Government/Public Service</td>
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<td>Physical Education</td>
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<td>Radiologic Technology</td>
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<td>Recreation Administration</td>
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<td>Rehabilitation</td>
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<td>Social Work</td>
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**Communication Studies**

- Communication Studies
- Film Studies
- Journalism
- Mass Communication
- Motion Picture – Television
- Photography
- Photo – Journalism
- Public – Relations
- Radio – Television Services

**Services**

- Communicative Disorders
- Counseling
- Criminal Justice

**Business**

- Accounting
- Finance
- Human Resources Management
- Information Systems
- International Business Management
- Marketing
- Communication
- Advertising

**Agriculture/Natural Resources/Environment**

- Agricutural Management
- Agriculture
- Animal Science
- Bio-resources
- Conservation
- Entomology
- Environmental Biology
- Environmental Biology/Toxicology Fisheries
- Environmental Science/Studies
- Forestry
- Natural Resources Management
- Park Management
- Petroleum Studies
- Plant Biology
- Soil Sciences
- Wildlife Management

**Applied Arts**

- Architecture
- Art
- Design
- Graphic Arts

**Engineering & Computer Science**

- Aerospace
- Aeronautics
- Bio-engineering
- Chemical
- Civil
- Electrical/Electronic
- Environmental
- Food Engineering
- Industrial Engineering
- Materials Science
- Mechanical
- Nuclear
- Petroleum

**Physical Sciences**

- Astrophysics
- Atmospheric Sciences
- Chemistry
- Earth Science
- Geophysics
- Geology
- Oceanography
- Physical Geography
- Physical Sciences
- Physics

**Math**

- Mathematics
- Statistics
- Quantitative Methods

**Univ. Transfer Majors (continued)**

- Industrial Design
- Chemistry
- Engineering
- Computer Science
- Aerospace
- Bio-engineering
- Chemical
- Civil
- Electrical/Electronic
- Environmental
- Food Engineering
- Industrial Engineering
- Materials Science
- Mechanical
- Nuclear
- Petroleum
- Business
- Accounting
- Finance
- Human Resources Management
- Information Systems
- International Business Management
- Marketing
- Communication
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- Journalism
- Mass Communication
- Motion Picture – Television
- Photography
- Photo – Journalism
- Public – Relations
- Radio – Television Services
- Services
- Communicative Disorders
- Counseling
- Criminal Justice
THE CALIFORNIA STATE UNIVERSITY

Lower Division Transfer Admission Requirements

Some campuses restrict enrollment of lower-division transfer students. California residents may be eligible for CSU admission with fewer than 60 transferable semester units (90 quarter units) if they:

- Have a college grade point average of 2.00 or better in all transferable college units attempted.
- Are in good standing at the last college or university attended, i.e., you are eligible to re-enroll.
- Meet the admission requirements for a first-time freshman or have successfully completed necessary courses to make up the deficiencies you had in high school if you did not complete the 15-unit pattern of college preparatory subjects.
- Meet the eligibility index required of a freshman.

Some campuses may require lower-division transfer students to have completed English composition and general education mathematics prior to transfer. Some campuses do not admit lower-division transfer students.

Contact your campus of choice to determine whether there are admission limits on the number of lower-division transfer students.

Students who completed college units before they graduated from high school or during the summer between high school graduation and CSU enrollment are considered first-time freshmen and must meet those admission requirements.

Upper Division Transfer Admission Requirements

Students are eligible for admission with 60 or more transferable semester units (90 quarter units) if they:

- Have a college grade point average of 2.00 or better (2.40 for non-California residents) in all transferable college units attempted.
- Are in good standing at the last college or university attended, i.e. are eligible to re-enroll.
- Have completed or will complete prior to transfer at least 30 semester units (45 quarter units) of courses equivalent to general education requirements with a grade of "C" or better. The 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course of at least 3 semester units (4 quarter units) required in college-level mathematics.

The above information is from the 2009-2010 California State University (CSU) undergraduate application.
CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2009-10

Forty-eight units of general education are required to graduate from campuses of the CSU system. A maximum of 39 units may be certified by community colleges; nine units must be taken at the upper division level. Acceptable courses are grouped in five areas, A through E. A maximum of 30 units may be certified from Areas B through D collectively. The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet General Education-Breadth Requirements will be honored if they are on the list during the year taken.

The following program is structured so that a student who completes the program will be assured of properly meeting the General Education-Breadth Requirements of CSU. Area A and Mathematics must be completed with a minimum grade of “C.” Students who have attended other colleges are urged to consult with a counselor or educational advisor for advice on satisfying General Education-Breadth Requirements.

Students beginning Fall 2009 must follow 2009-2010 CSU GE-Breadth requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy from the Counseling Center for the most recent version of the CSU GE. come to the Counseling Center located in Student Services, upper level.

Area A

The English Language and Critical Thinking (9 units minimum):
Select one course from each group:
A-1: Oral Communication:
SPCH 1A Public Speaking
SPCH 1AH Public Speaking – Honors
A-2: Written Communication:
ENGL 1A Freshman Composition
ENGL 1AH Freshman Composition – Honors
A-3: Critical Thinking:
ENGL 1C Critical Thinking and Writing
ENGL 1CH Critical Thinking and Writing – Honors
PHIL 1 Logic in Practice
PHIL 1H Logic in Practice – Honors
PHIL 8 Critical Thinking
PHIL 9 Critical Thinking and Logical Writing
PSCY 1S Psychology of Reasoning and Problem Solving
SPCH 1B Intermediate Public Speaking
SPCH 20 Argumentation and Debate
SPCH 20H Argumentation and Debate – Honors

Area B

The Physical Universe & Life (9 units minimum):
Select one course from each group. Also, one lab (+) course must be included in one of the science groups.
B-1: Physical Science –
Select at least one course from the following list:
ASTR 5 Introduction to Astronomy
ASTR 5H Introduction to Astronomy – Honors
ASTR 1L Astronomical Observing Laboratory
ASTR 7 Geology of the Solar System
ASTR 8 Introduction to Stars, Galaxies and the Universe
+CHEM 10 Chemistry for Allied Health Majors
+CHEM 20 Introductory Organic and Biochemistry
+CHEM 40 Introduction to General Chemistry
+CHEM 50 General Chemistry I
+CHEM 50H General Chemistry I – Honors
+CHEM 51 General Chemistry II
+CHEM 51H General Chemistry II – Honors
+CHEM 52H General Chemistry Laboratory
+CHEM 53H General Chemistry Laboratory – Honors
+CHEM 54H General Chemistry Laboratory – Honors
+CHEM 55H General Chemistry Laboratory – Honors

Area C

Arts, Literature, Philosophy and Foreign Languages (9 units minimum):
Select three courses, with at least one course from “Arts” and one course from “Humanities”:
C-1: Arts
+ARTB 1 Understanding the Visual Arts
+AHS 1H Understanding the Visual Arts – Honors
+AHS 2 Topics in Visual Art and Culture
+AHS 2H Topics in Visual Art and Culture – Honors
+AHS 3 History of Women and Gender in Art
+AHS 3H History of Women and Gender in Art – Honors
+AHS 4 History of Western Art: Prehistoric Through Gothic
+AHS 4H History of Western Art: Prehistoric Through Gothic – Honors
+AHS 5 History of Western Art: Renaissance Through Modern
+AHS 5H History of Western Art: Renaissance Through Modern – Honors
+AHS 6 History of Modern Art
+AHS 6H History of Modern Art – Honors
+AHS 9 History of Asian Art
+AHS 10 A History of Greek and Roman Art and Architecture
+AHS 11 History of African, Oceanic and Native American Art
+AHS 12 History of Precolombian Art
+AHS 12H History of Precolombian Art – Honors
+ARCH 31 World Architecture I
+ARCH 32 World Architecture II
+ARTB 14 Basic Studio Arts
+ARTB 15A Drawing: Beginning
+ARTB 20 Design: Two Dimensional
+ARTB 25A Painting: Beginning
+ARTG 20 Art, Artists and Society
+ARTS 22 Design: Three Dimensional
+ARTS 30A Ceramics: Beginning
+ARTS 40A Sculpture: Beginning
+DIH 20 History and Appreciation of Dance
+ID 180 History of Interior Architecture and Furnishings I

MUS 7 Fundamentals of Music
MUS 11A Music Literature Survey
### California State University General Education Requirements 2009-10

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<th>Social, Political, and Economic Institutions and Behavior; Historical Background</th>
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<tbody>
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<td>D-0: Sociology &amp; Criminology</td>
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<tr>
<td>CHILD 1</td>
<td>Child, Family, School and Community</td>
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<td>SOC 1</td>
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<td>SOC 5</td>
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<td>SOC 14</td>
<td>Marriage and the Family</td>
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<td>SOC 15</td>
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<td>SOC 20</td>
<td>Sociology of Ethnic Relations</td>
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<td>SOC 20H</td>
<td>Sociology of Ethnic Relations – Honors</td>
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</table>

| D-1: Anthropology & Archeology |
| ANTH 3 | Archeology |
| ANTH 5 | Principles of Cultural Anthropology |
| ANTH 22 | General Cultural Anthropology |
| ANTH 30 | The Native American |

| D-2: Economics |
| AGCF 20 | Conservation of Natural Resources |
| BUSC 1A | Principles of Economics – Macroeconomics |
| BUSC 1AH | Principles of Economics – Macroeconomics – Honors |

### Attention:
It is recommended that you use one of the options below as part of the 9 units required in Area D.

### CSU American Institutions & U.S. History Graduation Requirement:

**Option 1:**
HIST 7 (or 7H) + HIST 8 (or 8B)
Note: If Option #1 is selected, DO NOT select another D6 course as your third Area D course.

**Option 2:**
Completion of one course from U.S. History plus one course from American Institutions:

#### United States History:
- HIST 1
- HIST 7
- HIST 8
- HIST 30
- HIST 31
- HIST 40

#### American Institutions:
- POLI 1
- POLI 2
- POLI 1H
- POLI 25
- POLI 31
- POLI 33

The two courses from Option 1 or Option 2 may be used as part of the 9 units for Area D.
## TRANSFERRING TO CALIFORNIA COLLEGES AND UNIVERSITIES

### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2009-10

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<td>HIST 30</td>
<td>History of the African American</td>
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<td>HIST 31</td>
<td>History of the African American</td>
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<td>HIST 35</td>
<td>History of Africa</td>
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<td>HIST 36</td>
<td>Women in American History — Beyond the Stereotypes</td>
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<td>HIST 39</td>
<td>California History</td>
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<td>HIST 40</td>
<td>History of the Mexican American</td>
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<td>HIST 44</td>
<td>History of Native Americans</td>
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### D-7: Interdisciplinary Social or Behavioral

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<td>Child Growth and Development — Honors</td>
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<td>SPCH 7</td>
<td>Intercultural Communication</td>
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<td>SPCH 26</td>
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### D-8: Political Science, Government, and Legal Institutions

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<td>POLI 35</td>
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### D-9: Psychology

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<td>PSYC 14</td>
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<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 25</td>
<td>The Psychology of Women</td>
<td></td>
</tr>
</tbody>
</table>

### Notes

1. Upper division transfer students (60 - 70 semester baccalaureate units), will need to have at least 30 semester units of general education. Within those 30 units, Area A (9) semester units and Mathematics (3) semester units must be completed with grades of “C” or better.

2. CSULA transfer students are advised to complete ENGL 1C or ENGL 1CH as part of the Area A requirements. CSULA requires completion of ENGL 102 (ENGL 1C or 1CH) as a prerequisite to UNIV 400 (Writing Proficiency Examination).

3. Courses on this list have been approved by the CSU Office of the Chancellor for Fall 2009 and beyond. If a course was completed prior to approval, it cannot be certified for CSU General Education–Breadth requirements.

4. Some majors at CSU do not allow double counting of major preparation courses and general education requirements. Students are advised to consult with a counselor or advisor to determine if courses can be double counted.

5. Some majors require specific general education courses. Students planning to transfer are advised to plan their schedules carefully in order to maintain progress.

* Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.
THE UNIVERSITY OF CALIFORNIA

UC Minimum Admission Requirements

There are several ways to meet the University's minimum admission requirements for transfer students, as described below. The path you use depends on the degree to which you satisfied UC's minimum eligibility requirements for freshmen, at the time you graduated from high school. In all cases, you must have at least a "C" (2.0) grade point average in all transferable coursework. If you need assistance in determining whether you met the requirements, contact an educational advisor in the Counseling Center.

Minimum Admission Requirements for California Residents Transferring to UC

1. If you were eligible for admission to the University when you graduated from high school — meaning you satisfied the Subject, Scholarship, and Examination Requirements, or were identified by the University during your senior year in high school as eligible in the Local Context — you are eligible for transfer if you have a 2.0 GPA in your transferable coursework.

2. If you met the Scholarship Requirement in high school but did not satisfy the Subject Requirement, you must take transferable college courses in the missing subjects, earn a "C" or better in each required course, and maintain a 2.0 GPA in all transferable coursework to be eligible to transfer.

3. If you were not eligible for admission to the University when you graduated from high school because you did not meet the Scholarship Requirement, you must:
   A. Complete 60 semester units (or 90 quarter units) of transferable college credit with at least a 2.4 GPA. No more than 14 semester units may be taken pass/no pass; and
   B. Complete the following course pattern requirement, earning a grade of "C" or better in each course:
      • two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
      • one transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning; and
      • four transferable college courses (3 semester 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, and the physical and biological sciences.

Students who satisfy the Intersegmental General Education Transfer Curriculum (IGETC) prior to transferring to UC may satisfy Option 3B of the transfer admission requirements.
Transferring to California Colleges and Universities

**INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) 2009-10**

Completion of the IGETC will permit a student to transfer from Mt. SAC to a campus in either the University of California (UC) system or California State University (CSU) without the need, after transfer, to take additional lower-division general education courses to satisfy university general education requirements. It should be noted that completion of the IGETC is not an admission requirement for transfer to UC or CSU, nor is it the only way to fulfill the lower-division general education requirements of UC or CSU prior to transfer. Students pursuing majors that require extensive lower-division preparation may not find the IGETC option to be advantageous (i.e., Engineering, Sciences).

The requirements listed below must be completed in their entirety for full certification to the UC and CSU. For students who have completed coursework at multiple campuses, the campus of last attendance prior to transfer to UC or CSU will certify the coursework. Mt. SAC will certify coursework from other campuses according to the IGETC list of the originating campus. A minimum grade of “C” is required in each course. A grade of “C−” is not acceptable.

Students beginning Fall 2009 must follow 2009-2010 IGETC requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy of the Counseling Center.

### Area 1

**English Communication**

Select one course from each group:

**Group A: English Composition**

- ENGL 1A Freshman Composition
- ENGL 1AH Freshman Composition – Honors

**Group B: Critical Thinking – Composition**

- ENGL 1C Critical Thinking and Writing
- ENGL 1CH Critical Thinking and Writing – Honors
- PHIL 9 Critical Thinking and Logical Writing

**Group C: Oral Communication**

CSU requirements only

- SPCH 1A Public Speaking
- SPCH 1AH Public Speaking – Honors

### Area 2

**Mathematical Concepts and Quantitative Reasoning**

Select one course from:

- MATH 110 Elementary Statistics
- MATH 110H Elementary Statistics – Honors
- MATH 120 Finite Mathematics
- MATH 130 College Algebra
- MATH 140 Calculus for Business
- MATH 160 Precalculus Mathematics
- MATH 180 Calculus and Analytic Geometry
- MATH 280 Calculus and Analytic Geometry
- MATH 285 Linear Algebra and Differential Equations
- PSYC 10 Statistics for the Behavioral Sciences

### Area 3

**Arts and Humanities**

Select three courses minimum, at least one course from the Arts group and one course from the Humanities group:

**Arts Courses:**

- AHIS 1 Understanding the Visual Arts, or
- AHIS 1H Understanding the Visual Arts – Honors
- AHIS 4H History of World Art
- AHIS 5H History of Western Art: Renaissance through Modern
- AHIS 6 History of Modern Art
- AHIS 6H History of Modern Art – Honors
- AHIS 10 A History of Greek and Roman Art and Architecture
- AHIS 11 History of African, Oceanic, and Native American Art
- AHIS 12 History of Precolombian Art
- AHIS 12H History of Precolombian Art – Honors
- ARCH 31 World Architecture I
- ARCH 32 World Architecture II
- DN 10 History and Appreciation of Dance
- MUS 11A Music Literature Survey
- MUS 11B Music Literature Survey
- MUS 12 History of Jazz
- MUS 13 Introduction to Music Appreciation
- MUS 13H Introduction to Music Appreciation – Honors
- MUS 14A World Music
- MUS 14B American Folk Music

**Humanities Courses:**

- CHIN 3 Intermediate Chinese
- CHIN 4 Continuing Intermediate Chinese
- ENGL 1B English – Introduction to Literary Types
- ENGL 18H English – Introduction to Literary Types – Honors
- FRCH 3 Intermediate French
- FRCH 4 Continuing Intermediate French
- FRCH 5 Advanced French
- FRCH 6 Continuing Advanced French
- FRCH 60 French Culture through Cinema
- GER 3 Intermediate German
- HIST 1 History of the United States
- HIST 2 History of American Civilization
- HIST 3 History of World Civilization
- HIST 4 History of World Civilization – Honors
- HIST 4H History of World Civilization – Honors
- HIST 7 History of Western Civilization
- HIST 7H History of Western Civilization – Honors
- HIST 8 History of the United States
- HIST 8H History of the United States – Honors
- HIST 10 History of Africa
- HIST 11 History of Asia
- HIST 19 History of Mexico
- HIST 30 History of the African American
- HIST 31 History of the African American
- HST 35 History of Africa
- HST 36 Women in American History – Beyond the Stereotypes
- HST 39 California History
- HST 40 History of the Mexican American
- HUMA 1 The Humanities
- ITAL 3 Intermediate Italian
- ITAL 4 Continuing Intermediate Italian
- ITAL 5 Advanced Italian
- ITAL 6 Continuing Advanced Italian
- ITAL 60 Italian Culture through Cinema
- JAPN 3 Intermediate Japanese
- JAPN 4 Continuing Intermediate Japanese
- JAPN 5 Advanced Japanese
- LIT 1 Early American Literature
- LIT 2 Modern American Literature
- LIT 3 Multicultural American Literature
- LIT 6A Survey of English Literature
- LIT 6B Survey of English Literature
- LIT 10 American Deaf Culture
- LIT 11N World Literature
- LIT 11B World Literature
- LIT 14 Introduction to Modern Poetry
- LIT 15 Introduction to Cinema
- LIT 20 African American Literature
- LIT 25 Contemporary Mexican American Literature
- LIT 33 Images of Women in Literature
- LIT 35 Science Fiction and Fantasy Survey
- LIT 36 Introduction to Mythology
- LIT 46 The Bible as Literature: Old Testament
- LIT 47 The Bible as Literature: New Testament
- LIT 5 Introduction to Philosophy
- PHIL 5H Introduction to Philosophy – Honors
- PHIL 12 Ethics
- PHIL 12H Ethics – Honors
- PHIL 15 Major World Religions
- PHIL 15H Major World Religions – Honors
- PHIL 20A History of Western Philosophy
- PHIL 20B History of Western Philosophy
- SIGN 104 American Sign Language 4
- SIGN 202 American Deaf Culture
- SPAN 3 Intermediate Spanish
- SPAN 4 Continuing Intermediate Spanish
- SPAN 5 Advanced Spanish
- SPAN 6 Continuing Advanced Spanish
- SPAN 25 Spanish Literature
### Social and Behavioral Sciences

Select three courses total from a minimum of two different subject areas:

- **ANTH 3** Archaeology
- **ANTH 5** Principles of Cultural Anthropology, or
- **ANTH 22** General Cultural Anthropology
- **BUSC 1A** Principles of Economics: Macroeconomics
- **BUSC 1A** Principles of Economics: Microeconomics
- **GEOG 2H** Human Geography – Honors
- **GEOG 30** Geography of California
- **HIST 44** History of Native Americans
- **POLI 1** Political Science
- **POLI 1H** Political Science – Honors
- **POLI 5** Political Science Theory
- **POLI 9** Introduction to International Relations
- **POLI 25** Politics of the Mexican American
- **POJI 35** African American Politics
- **PSYC 1B** Biological Psychology
- **PSYC 1A** Introduction to Psychology
- **PSY 1C** Abnormal Psychology
- **PSY 25** The Psychology of Women
- **SOC 1** Sociology
- **SOC 1H** Sociology – Honors
- **SOC 2** Sociology
- **SOC 2H** Sociology – Honors
- **SOC 4** Introduction to Gerontology
- **SOC 5** Introduction to Criminology
- **SOC 5H** Introduction to Criminology – Honors
- **SOC 20** Sociology of Ethnic Relations
- **SOC 20H** Sociology of Ethnic Relations – Honors
- **SPCH 7** Intercultural Communication

### Physical and Biological Sciences

Choose two courses, one physical and one biological science, at least one must include a laboratory. Laboratory must be a corresponding section to the lecture course taken. Laboratory courses are underlined.

- **ASTR 5** Introduction to Astronomy
- **ASTR 5L** Astronomical Observing Laboratory
- **ASTR 7** Geology of the Solar System
- **ASTR 8** Introduction to Stars, Galaxies, and the Universe
- **CHEM 10** Chemistry for Allied Health Majors
- **CHEM 20** Introduction to General Chemistry
- **CHEM 50** General Chemistry I
- **CHEM 51** General Chemistry II
- **CHEM 52** General Chemistry I – Honors
- **CHEM 53** General Chemistry II – Honors
- **GEOL 1** Physical Geography Laboratory
- **GEOL 1H** Physical Geography Laboratory – Honors
- **GEOL 1L** Physical Geography Laboratory
- **GEOL 1LH** Physical Geography Laboratory – Honors
- **GEOL 8** Earth Science
- **GEOL 8H** Earth Science – Honors
- **GEOL 9** Environmental Geology
- **GEOL 13** Evolution of the Earth
- **OCEA 10** Introduction to Oceanography
- **OCEA 10H** Introduction to Oceanography – Honors
- **OCEA 10L** Introduction to Oceanography Laboratory
- **PHYS 1** Engineering Physics
- **PHYS 2A** General Physics
- **PHYS 2B** General Physics
- **PHYS 3** Physics
- **PHYS 4A** Engineering Physics
- **PHYS 4B** Engineering Physics
- **PHYS 4C** Engineering Physics
- **BIOLOGY: ANAT 10** Human Anatomy
- **ANAT 10H** Human Anatomy
- **ANAT 15** Human Physiology
- **ANTH 1** Biological Anthropology
- **ANTH 1H** Biological Anthropology – Honors
- **ANTH 1L** Biological Anthropology Laboratory
- **BIOL 1** General Biology
- **BIOL 1H** Biology for Majors
- **BIOL 1L** Biology for Majors – Honors
- **BIOL 2** Plant and Animal Biology
- **BIOL 3** Marine Biology
- **BIOL 4** Biology of Majors
- **BIOL 4L** Biology of Majors – Honors
- **BIOL 5** Humans and the Environment Laboratory
- **BIOL 6** Humans and the Environment Laboratory
- **BIOL 6L** Cell and Molecular Biology
- **BIOL 8** Marine Biology
- **MICR 1** Principles of Microbiology
- **MICR 2** Microbiology
- **PSYC 1** Biological Psychology

### UC Requirement Only

#### Language other than English:
The minimum proficiency required is met by completing one of the courses listed below or by completion of two years of high school study in the same language.

- **ARAB 1** Elementary Arabic
- **CHIN 1** Elementary Chinese
- **FREN 1** Elementary French
- **GERM 1** Elementary German
- **HINDI 1** Elementary Hindi
- **JAPAN 1** Elementary Japanese
- **SPAN 1** Elementary Spanish
- **SPAN 11** Spanish for the Spanish Speaking

### CSU Graduation Requirements Only in U.S. History, Constitution, and American Ideals:

- **HIST 7** History of the United States
- **HIST 8** History of the United States
- **HIST 7H** History of the United States – Honors
- **HIST 8H** History of the United States – Honors
- **HIST 31** History of the African American
- **HIST 36** Women in American History – Beyond the Stereotypes

### United States History:

- **HIST 40** History of the Mexican American

### American Institutions:

- **POLI 1** Political Science
- **POLI 1H** Political Science – Honors
- **POLI 25** Politics of the Mexican American
- **POLI 35** African American Politics

### Notes:

- UC limits transfer credit for some courses. Students may review the UC Transfer Course Agreement (TCA) with an educational advisor or counselor in the Student Services Center. Students must see an educational advisor or counselor for preliminary IGETC certification. For IGETC certification, the course must be on the list during the year taken. Students from non-English speaking countries should see an educational advisor or international student counselor for language proficiency equivalences.
The IGETC provides a pattern of courses that fulfills the transfer general education requirements at both the University of California (UC) and the California State University (CSU). Each California community college offers a complete set of courses that satisfies IGETC. If you attend more than one community college, the campus you attend just prior to transfer will certify your completion of IGETC, including courses taken at other colleges. The IGETC pattern is not recommended for all majors. See your counselor/educational advisor for advice and more complete information on the IGETC certification.

California's fully-accredited independent colleges and universities provide many options at the undergraduate, graduate, and professional levels for students planning to continue their education beyond the community college.

Admission requirements vary and are listed in the catalogs of the various universities and colleges.

Financial aid may be a primary factor in making it possible for a student to attend an independent college or university. There are many forms of financial assistance available, such as federal, state, institutional, and private aid. Students should apply for scholarships, grants, loans, and work-study awards from all possible sources. All independent colleges urge, and some require, that all undergraduates who are California residents apply for a Cal Grant. Financial aid applications are available in January for the following academic year and may be obtained from a campus financial aid office. Filing instructions and deadlines are indicated on the form. Contact the individual campuses for details and assistance in completing the necessary forms.

The independent colleges and universities include:
- Alliant International University
- American Academy of Dramatic Arts Los Angeles
- Antioch University Los Angeles
- Art Center College of Design
- Azusa Pacific University
- Biola University
- California Baptist University
- California College of the Arts
- California Institute of Technology (Cal Tech)
- California Institute of the Arts
- California Lutheran University
- Chapman University
- Charles R. Drew University of Medicine and Science
- Claremont Graduate University
- Claremont McKenna College
- Cogswell Polytechnical College
- Concordia University
- DeVry Institute of Technology
- Dominican University of California
- Fielding Graduate University
- Fresno Pacific University
- Golden Gate University
- Harvey Mudd College
- Holy Names College
- Hope International University
- Humphreys College
- John F. Kennedy University
- Keck Graduate Institute
- La Sierra University
- Laguna College of Art and Design
- Loma Linda University
- Loyola Marymount University
- Marymount College
- The Master's College
- Menlo College
- Mills College
- Monterey Institute of International Studies
- Mount St. Mary's College
- National University
- Notre Dame de Namur University
- Occidental College
- Otis College of Art and Design
- Pacific Graduate School of Psychology
- Pacific Oaks College
- Pacific Union College
- Patten College
- Pepperdine University
- Phillips Graduate Institute
- Pitzer College
- Point Loma Nazarene University
- Pomona College
- Saint Mary's College of California
- Samuel Merritt College
- San Diego Christian College
- San Francisco Conservatory of Music
- Santa Clara University
- Saybrook Graduate School and Research Center
- Scripps College
- Simpson University
- Soka University of America
- Southern California University of Health Sciences
- Stanford University
- Thomas Aquinas College
- Touro University California
- University of Judaism
- University of La Verne
- University of Redlands
- University of San Diego
- University of San Francisco
- University of Southern California
- University of the Pacific
- Vanguard University of Southern California
- Western University of Health Sciences
- Westmont College
- Whittier College
- William Jessup University
- Woodbury University

For more information on California Independent Colleges and Universities see an educational advisor or counselor in the Counseling Center. You may also obtain information from the aiccu.edu.
Section 10
Course Descriptions
Course Descriptions

DEFINITIONS OF TERMS

**CSU Transfer**
Courses designated “CSU” are baccalaureate level and will transfer to all of the California State Universities and count toward graduation at Mt. San Antonio College.

**CSU/UC Cross Enrollment Program**
California residents students at Mt. San Antonio College may enroll in one undergraduate course per term at any CSU or UC campus provided the student has met the course prerequisites and approval is granted by both Mt. SAC and the university. To cross-enroll, students must: have completed at least one term at Mt. SAC; have a 2.0 grade point average (GPA) in transferable course work; and be enrolled in at least six units at Mt. SAC. A $10.00 fee plus any material/lab fees associated with the course may be charged. To apply for the CSU/UC Cross Enrollment Program, students must complete the CSU/UC Cross Enrollment application; these forms are available in the Advising Center.

**UC Transfer/UC Credit Limitation**
Courses designated “UC” are baccalaureate level and will transfer to all of the University of California campuses and California State Universities, and will count toward graduation at Mt. San Antonio College. UC limits credit for some courses. Students contemplating transfer to UC should consult with an educational advisor and review the UC Transfer Course Agreement (TCA) for course credit limitations and changes.

**UC Credit for Physical Education Activity Courses**
A maximum of four semester units of UC credit will be awarded for Physical Education Activity courses. Courses of a vocational nature such as Fire or Police Academy Protection Preparation or Aerobic Instructor Training will not be awarded UC credit.

**UC Credit Pending**
Credit for Special Projects courses are given only after a review of the topic for the course by the enrolling UC campus. This usually occurs after transfer and may include recommendations from faculty. The UC will not give credit for special projects courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments because of the credit restrictions in those areas.

**CAN (California Articulation Number System)**
The California Articulation Number (CAN) System is a statewide numbering system of independent twin course numbers assigned by local colleges. A CAN number signals that participating California colleges and universities have determined that courses offered by other campuses are equivalent in content and scope to courses offered on their own campuses, regardless of their unique titles or local identifying numbers. Thus, if a schedule of classes or catalog lists a course bearing a CAN number, students on one campus can be assured that it will be accepted in lieu of the comparable CAN course noted in the catalog or schedule of classes of another campus. For example, CAN ECON 2 on one campus will be accepted as meeting the requirement of the designated CAN ECON 2 course on other participating community college or university campuses.

The CAN numbering system is obviously useful for students attending more than one community college and is applied to many of the transferable lower division courses students need as preparation for their intended major. Because these course requirements may change, however, and because courses are continually being redefined, qualified, or deleted from the CAN database, students should always check with an educational advisor in the Advising Center or counselor in the Counseling Department to determine how CAN-designated courses fit into their educational plans for transfer. Students should consult the ASSIST database at www.assist.org for specific information on course agreements. The college staff will help students interpret this information.

**Eligibility**
In listing a prerequisite for enrolling in a course, an “eligibility” may also be listed. An eligibility requirement specifies the course level the student must qualify to enroll in—not that the course has to be completed prior to enrollment. For example, the prerequisite “eligibility for English 68” requires that the student must qualify to enroll in English 68 in order to enroll in the particular course.

**Prerequisite**
A prerequisite is a course which must be taken for enrollment in another course.

**Corequisite**
A corequisite is a course which is required to be taken simultaneously in order to enroll in another course.

**Advisory**
An advisory prerequisite is a course which is advised, but not required, to be taken either before or in conjunction with enrollment in a course.

**Non-Degree Credit**
Courses designated “Non-Degree Credit” are college level classes which are neither a part of an associate degree or certificate program nor transferable to four-year colleges and universities.

**Degree Appropriate**
Courses designated “Degree Appropriate” are college-level classes which are a part of an associate degree or certificate program.

**Physical Education Activity**
Physical education activity units consist of a combination of lecture and activity hours. This includes all PE classes except those having a prefix of PE.

**UC Credit for Physical Education Activity Courses**
A maximum of four semester units of UC credit will be awarded for Physical Education activity courses. Courses of a vocational nature such as Fire or Police Academy Protection Preparation or Aerobic Instructor Training will not be awarded UC credit.
COURSE DESCRIPTIONS

ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT

ADJU 1 — The Administration of Justice System 3 Units
(CAN AD02) Degree Applicable, CSU, UC
54 hours lecture
History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

ADJU 2 — Principles and Procedures of the 3 Units Justice System
Degree Applicable, CSU
54 hours lecture
Roles and responsibilities of each segment of the justice system; additional focus on relationships between system segments and subsystem procedures from initial incident to final disposition.

ADJU 3 — Concepts of Criminal Law 3 Units
(CAN AD04) Degree Applicable, CSU, UC
54 hours lecture
Provides an overview of California criminal law from the perspective of the law enforcement officer.

ADJU 4 — Legal Aspects of Evidence 3 Units
Degree Applicable, CSU
54 hours lecture
Introduction to criminal evidence, including admissibility, witness competency, privileged communication, hearsay, and collection and preservation of evidence.

ADJU 5 — Community Relations 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for English 68
Community problems and policing. Focus on service image, diversity, human relations, crises and confrontations with the public.

ADJU 6 — Concepts of Enforcement Services 3 Units
Degree Applicable
54 hours lecture
Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.

ADJU 7 — Concepts of Traffic Services 3 Units
Degree Applicable
54 hours lecture
A study of traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and specialization in traffic management. Emphasis is placed on service to the motoring public.

ADJU 20 — Principles of Investigation 3 Units
54 hours lecture
Prerequisite: Eligibility for English 68
Fundamentals of investigation; 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; scientific aids; sources of information; interviews and interrogation; follow up and case preparation.

ADJU 38 — Narcotics Investigation 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for English 68
Investigation techniques for drug enforcement. Drug effects, use of informants, amendment issues, and handling of evidence.

ADJU 59 — Gangs in the Community/Corrections 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68, ADJU 1
Exploration of contemporary street and prison gang issues, including historical and current perspectives, prison gang dynamics, identification of characteristics, cultural differences of gang philosophy. Includes law enforcement/corrections role in intervention/suppression.

ADJU 68 — Administration of Justice Report Writing 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for English 68
Advisory: Eligibility for ENGL 68, ADJU 1
Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

ADJU 74 — Vice Control 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for English 68
Advisory: Eligibility for ENGL 68, ADJU 1
54 hours lecture
Prerequisite: Eligibility for English 68
A study of drug enforcement and intelligence. Code and case law dealing with vice; detection and suppression; apprehension and prosecution of violators; special consideration of laws dealing with gambling, prostitution, and sex crimes.

AERONAUTICS

AERO 23 — Primary Pilot Ground School 4 Units
Degree Applicable, CSU
72 hours lecture
Basic aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors, and cross-country navigation procedures; provides introductory material on radio navigation, aeromedical factors, and radio communications procedures. Meets the preparation requirements for the FAA Private Pilot computerized knowledge examination.

AERO 24 — Navigation 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23
Advanced dead reckoning navigation procedures. Aeronautical computers and their application in cross-country flying. Use of radio navigation aids, flight planning, flight directors, global positioning system, and electronic flight instrumentation systems.

AERO 25 — Commercial Pilot Ground School 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23
FAA Commercial Pilot certification requirements, including aerodynamics, commercial pilot maneuvers, complex aircraft operations, multi-engine aircraft operations, aircraft weight and balance, aircraft performance charts, and radio navigation using advanced instrumentation. Prepares students for completion of the FAA Commercial Pilot Computerized Knowledge Examination.

AERO 26 — Aviation Weather 3 Units
Degree Applicable, CSU
54 hours lecture
A basic study of weather elements, the atmosphere, weather mechanics, weather disturbances, weather analysis and forecasts. Evaluation of aviation weather reports and forecasts.

AERO 27 — Aviation Safety and Human Factors 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23
An investigation of factors which lead to aircraft accidents. Includes the study of aircraft accident cause factors, with emphasis on human behavior as it relates to the environment of the pilot and air traffic controller.

AERO 28 — Aircraft and Engines 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23
Aircraft design, subsystems, repair and maintenance. Principles of internal combustion engines, fuel systems, engine construction and design, lubrication and cooling methods, ignition system, basic troubleshooting. Turbine engine basic design and operational characteristics.

AERO 29 — Federal Aviation Regulations 2 Units
Degree Applicable, CSU
36 hours lecture
Federal Aviation Regulations that pertain to pilot certification, aircraft maintenance, general operating rules; air traffic control practices and procedures; reporting of aircraft accidents.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>AERO 30</td>
<td>Instrument Ground School</td>
<td>3</td>
<td>CSU</td>
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<td><strong>Advisory:</strong> AERO 23 and AERO 26</td>
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<td>Instrument Flight Rules, Air Traffic Control communications and procedures, air navigation radio aids, instrument landing systems, flight instruments, aircraft performance, aeronautical publications, instrument approach procedures, IFR cross-country navigation, and instrument weather. Meets the preparation requirements for the FAA Instrument Pilot computerized knowledge exam.</td>
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<tr>
<td>AERO 40</td>
<td>Flight</td>
<td>1</td>
<td>CSU</td>
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<td><strong>Advisory:</strong> AERO 23 taken prior or concurrently</td>
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<td>Flight training career preparation, including evaluation of locally available flight training options and flight career opportunities including corporate aviation, charter operations, cargo airline careers, and military flight training. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>AERO 40L</td>
<td>Flight Laboratory</td>
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<td>CSU</td>
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<td><strong>Advisory:</strong> AERO 23 taken prior or concurrently</td>
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<td>Primary flight training and the development of specialized skills. Students individually schedule training lessons at a flight school of their choice, under the supervision of an FAA certified flight instructor. Students must complete a minimum of 15 hours of flight time, including three hours of dual instruction. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>AERO 41</td>
<td>Basic Flight Simulator Laboratory</td>
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<td><strong>Advisory:</strong> AERO 26</td>
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<td></td>
<td>Flight simulator training in the IGATE PC-ATD simulator in preparation for the instrument rating. Full and partial panel airwork, holding patterns, VOR and ADF orientation, and instrument approach procedures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AERO 42</td>
<td>Advanced Flight Simulator Laboratory</td>
<td>.5</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Advisory:</strong> Private Pilot's Certificate and AERO 30 or Instrument Rating</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Flight simulator training in the ATC-810 simulator for the multi-engine rating and advanced instrument flight. Emergency procedures for multi-engine aircraft and high performance airplanes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AERO 45A</td>
<td>Multi-Engine Turbine Aircraft Operations</td>
<td>3</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Advisory:</strong> AERO 25 and AERO 30 or Commercial Pilot Certificate with Instrument Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>An introduction to the design features and operational characteristics of a selected multi-engine turbine aircraft utilized in regional airline operations and corporate aviation, with emphasis on aircraft and engine systems.</td>
<td></td>
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</tr>
<tr>
<td>AERO 58</td>
<td>Flight Instructor Ground School</td>
<td>3</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Advisory:</strong> AERO 25 and AERO 30 or Commercial Pilot Certificate with Instrument Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The learning process, basic teaching principles, and the application of these principles in teaching student pilots. Analysis of flight maneuvers and instruments. Prepares students for the FAA computerized knowledge tests for Flight Instructors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGHE 60</td>
<td>Medical Nursing and Animal Care</td>
<td>4</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> AGLI 95 and formal admittance to the Registered Veterinary Technology Program</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Animal examination for health and disease conditions in the animal hospital, including sanitation, administration of medicine, emergency treatment, therapeutic techniques, dental prophylaxis, venipuncture, electrocardiography, application of casts, splints and other appliances. Includes diseases, their causes and effects, and immunology of animals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGHE 61</td>
<td>Surgical Nursing</td>
<td>4</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> AGLI 95 and formal admittance to the Registered Veterinary Technology Program</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Surgical preparation, surgical assistance, post-operative care, administer and monitor anesthesia, dentistry, CPR, sterilization and the maintenance of a sterile environment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGHE 62A</td>
<td>Clinical Pathology</td>
<td>4</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> AGLI 95 and formal admittance to the Registered Veterinary Technology Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduces students to the expansive field of clinical pathology. Topics include hematology, clinical chemistries, internal parasites, immunology, serology and vaginal cytology.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGHE 62B</td>
<td>Clinical Pathology</td>
<td>4</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> AGLI 95 and formal admittance to the Registered Veterinary Technology Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduces students to the expansive field of clinical pathology. Topics include hematology, clinical chemistries, internal parasites, immunology, serology and vaginal cytology.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGHE 64</td>
<td>Veterinary Pharmacology</td>
<td>3</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> Formal admittance to Advanced Class Status in the Registered Veterinary Technology Program, and completion of MATH 51 or MATH 51B or AGAG 91</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Basic concepts in pharmacological chemistry. Pharmaceuticals and biologics commonly used in the maintenance of animal health. Includes generic terminology, abbreviations for prescriptions, labeling requirements, state and federal laws, classification of materials, weights and measures, drug dosage flow rates, pharmacological mathematics and the metric system, side effects and drug interactions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### AGHE 65 — Veterinary Radiography 2 Units
Degree Applicable, CSU

- 18 hours lecture
- 54 hours lab

Prerequisite: AGLI 95 and formal admittance to the Registered Veterinary Technology Program

Basic concepts and skills of veterinary positioning of canine, feline, avian, reptilian species, and livestock for radiography; processing of the radiograph; radiation safety; basic technique and instrumentation; contrast radiography and ultrasound imaging. Emphasizes performance of x-ray procedures for the veterinary practitioner.

### AGHE 79 — Laboratory Animal Medicine and Care 3 Units
Degree Applicable, CSU

- 36 hours lecture
- 54 hours lab

Laboratory animal medicine, care and procedures, rules and regulations governing laboratory animals.

### AGHE 83A — Work Experience in Animal Health 1 to 2 Units
Degree Applicable

(May be taken four times for credit)

- 75 to 150 hours lab

Prerequisite: Formal admittance in the Registered Veterinary Technology Program. Compliance with Work Experience regulations as designated in the College Catalog.

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### AGHE 84A — Applied Animal Health Procedures 1 Unit
Degree Applicable

- 54 hours lab

Fall field study course in the collection, handling, and analysis of feces, urine, and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

### AGHE 84B — Applied Animal Health Procedures 1 Unit
Degree Applicable

- 54 hours lab

Spring field study course in the collection, handling and analysis of feces, urine and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with school domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

### AGHE 85 — Seminar in Registered Veterinary Technology 1 Unit
Degree Applicable

- 18 hours lab

Prerequisite: Completion of the Registered Veterinary Technology program

Group study course designed to help students with success on their national and state registration examinations. Course includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

### AGHE 86 — Anatomy and Physiology of Domestic Animals 4 Units
Degree Applicable, CSU

- 54 hours lecture
- 54 hours lab

Prerequisite: Formal admittance to the Registered Veterinary Technology Program

Analyzes the body structures and systems, comparing domestic animals commonly found in veterinary medicine. The physiology section will emphasize functions of internal organs and body systems.

### AGAN 1 — Animal Science 3 Units
Degree Applicable, CSU, UC

- 54 hours lecture

Covers the study of the types of domestic animals and their utilization by humans.

### AGAN 2 — Animal Nutrition 3 Units
Degree Applicable, CSU, UC

- 54 hours lecture

Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

### AGAN 51 — Animal Handling and Restraint 3 Units
Degree Applicable, CSU

- 36 hours lecture
- 54 hours lab

Methods of proper handling for large and small animals, including chemical and physical techniques of restraint.

### AGAN 94 — Animal Breeding 3 Units
Degree Applicable

- 54 hours lecture

The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.

### AGFR 20 — Conservation of Natural Resources 3 Units
Degree Applicable, CSU, UC

- 54 hours lecture

Prerequisite: Eligibility for ENGL 68

Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, and conservation organizations. Emphasis on temperate forest, tropical forest, desert, and grassland ecosystems.

### AGAG 1 — Food Production, Land Use and Politics 3 Units
Degree Applicable, CSU, UC

- 54 hours lecture

Surveys the world’s food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food producing agriculture.

### AGAG 91 — Agricultural Calculations 3 Units
Degree Applicable

- 54 hours lecture

Prerequisite: Eligibility for MATH 51

Calculating the proper rates of application of veterinary drugs, fertilizers, irrigation water, farm chemicals and pesticidal materials. Practical field work in calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions and standardizing butterfat and solids non-fat.
Selection, utilization, and management of the light horse emphasizing 54 hours lab on the school farm and sheep farms in the area. Shearing, breeding, lambing, and marketing. Practical skills are taught means of entering them. Sheep management, sheep handling, feeding, nutrition and reproduction. Includes analysis of industry trends and emphasis on identification, health maintenance, handling techniques, and small commercial sites.

A study of the various types of sheep enterprises and the ways and means of entering them. Swine management, including handling, feeding, breeding, farrowing, butchering, and marketing. Practical skills are taught using the college farm.

Care and management of exotic and alternative livestock species with emphasis on identification, health maintenance, handling techniques, nutrition and reproduction. Includes analysis of industry trends and principal marketing uses of exotic animals.

A study of the various types of swine enterprises and the ways and means of entering them. Swine management, including handling, feeding, breeding, farrowing, butchering, and marketing. Practical skills are taught using the college farm.

Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrous cycles, breeding problems and stallion care.

A study of the various types of swine enterprises and the ways and means of entering them. Swine management, including handling, feeding, breeding, farrowing, butchering, and marketing. Practical skills are taught using the college farm.

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Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrous cycles, breeding problems and stallion care.

Care and management of exotic and alternative livestock species with emphasis on identification, health maintenance, handling techniques, nutrition and reproduction. Includes analysis of industry trends and principal marketing uses of exotic animals.

Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrous cycles, breeding problems and stallion care.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 15</td>
<td>Interior Landscaping</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous</td>
<td>3</td>
<td>Degree Applicable, UC</td>
</tr>
<tr>
<td>AGOR 30</td>
<td>Ornamental Plants - Trees and Woody Shrubs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 39</td>
<td>Turf Grass Production and Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 50</td>
<td>Soil Science and Management</td>
<td>3</td>
<td>Degree Applicable, UC</td>
</tr>
<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape Equipment Operations</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 52</td>
<td>Hydraulics</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 54</td>
<td>Small Engine Repair I</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 55</td>
<td>Diesel Engine Repair</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 56</td>
<td>Engine Diagnostics</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 57</td>
<td>Power Train Repair</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
</tbody>
</table>

- **AGOR 15 — Interior Landscaping**: 3 Units  
  Design, installation and maintenance practices used in interior landscape. Includes identification, culture and care of plants suitable for interior use. Field trip required.

- **AGOR 24 — Integrated Pest Management**: 3 Units  
  Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses use, safety, equipment, laws, and regulations of pesticides.

- **AGOR 29 — Ornamental Plants - Herbaceous**: 3 Units  
  Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses use, safety, equipment, laws, and regulations of pesticides.

- **AGOR 30 — Ornamental Plants - Trees and Woody Shrubs**: 3 Units  
  Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses use, safety, equipment, laws, and regulations of pesticides.

- **AGOR 32 — Landscaping and Nursery Management**: 3 Units  
  Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mixes and proper use of fertilizers, insecticides, fungicides, herbicides and growth regulators; irrigation; mechanization; financing; personnel management; retail displays, advertising and customer relationships; federal, state and local laws and regulations. Field trips are included.

- **AGOR 39 — Turf Grass Production and Management**: 3 Units  
  Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

- **AGOR 50 — Soil Science and Management**: 3 Units  
  Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skid loader, skid steer loader, backhoe, lawn mowers, edgers, weed eaters, blower/vacuum, rototillers, chain saws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.

- **AGOR 51 — Tractor and Landscape Equipment Operations**: 3 Units  
  Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

- **AGOR 52 — Hydraulics**: 3 Units  
  Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

- **AGOR 54 — Small Engine Repair I**: 3 Units  
  Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

- **AGOR 55 — Diesel Engine Repair**: 3 Units  
  Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

- **AGOR 56 — Engine Diagnostics**: 3 Units  
  Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.

- **AGOR 57 — Power Train Repair**: 3 Units  
  Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.
AGOR 62 — Landscape Irrigation - Design and Installation 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

AGOR 63 — Landscape Irrigation Systems Management 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Advisory: Eligibility for ENGL 68
A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency test will be incorporated to demonstrate proper methods of water audits.

AGOR 64 — Landscape Irrigation - Drip and Low Volume 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.

AGOR 71 — Landscape Construction Fundamentals 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Advisory: Eligibility for ENGL 68
Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include utilities (gas, water, electricity), woodworking, masonry and surveying techniques applied to landscaping.

AGOR 72 — Landscape Hardscape Applications 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Landscape construction pertaining to all hardscape features. Course covers estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

AGOR 73 — Landscaping Laws, Contracting, and Estimating 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Landscape laws, contracting, and estimating as it pertains to Landscape Construction. Information covered will be helpful for the licensing exam administered by the state of California C-27 classification. Students will gain hands-on experience of contracting and running a business.

AGOR 75 — Urban Arboriculture 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

AGOR 91 — Work Experience in Nursery Operations 1 to 4 Units
(May be taken for credit)
54 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

#### AIR CONDITIONING AND REFRIGERATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 10</td>
<td>Technical Mathematics in Air Conditioning and Refrigeration</td>
<td>2</td>
<td>Develops mathematical skills required for the study and application of air conditioning and refrigeration including measurements and equations applied to heat loads, air distribution, electricity, and the design of air conditioning and refrigeration equipment.</td>
</tr>
<tr>
<td>AIRC 11</td>
<td>Welding for Air Conditioning and Refrigeration</td>
<td>2</td>
<td>Fundamentals of welding related to the field of air conditioning and refrigeration with emphasis on the sterile techniques and skills required for joining copper refrigerant lines and the procedures for light fabrication.</td>
</tr>
<tr>
<td>AIRC 12</td>
<td>Air Conditioning Codes and Standards</td>
<td>3</td>
<td>Building codes and standards as they apply to the air conditioning and refrigeration industry. Develops skills necessary to read and interpret building codes and resolve installation and service problems as they apply to the construction industry.</td>
</tr>
<tr>
<td>AIRC 20</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
<td>Principles of mechanical refrigeration based on the refrigeration cycle and associated mechanical components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydraation techniques, and the safe handling and containment of refrigerants.</td>
</tr>
<tr>
<td>AIRC 25</td>
<td>Electrical Fundamentals for Air Conditioning and Refrigeration</td>
<td>4</td>
<td>Electrical principles and practices used in air conditioning and refrigeration as applied to the development and interpretation of schematics and the sequential approach to wiring circuits including power supplies, motors, and controls. Develops skills for designing electrical circuits, and electrical trouble shooting.</td>
</tr>
<tr>
<td>AIRC 26A</td>
<td>Heat Pump Fundamentals</td>
<td>1.5</td>
<td>Theory, operation, and application of heat pump systems used in residential and light commercial heating installations including the heat pump refrigeration cycle, reversing valves, defrost methods, supplemental heat, balance point, air flow, and heat pump thermostats.</td>
</tr>
<tr>
<td>AIRC 26B</td>
<td>Gas Heating Fundamentals</td>
<td>2</td>
<td>Analysis of gas heating systems used in residential and light commercial heating installations including the properties of fuel gasses, gas combustion, furnace construction, pilot proving devices and ignition systems.</td>
</tr>
<tr>
<td>AIRC 30</td>
<td>Heat Load Calculations</td>
<td>3</td>
<td>Heat load factors and charts will be explored, developed and applied to the heat loss and gain of a residential, refrigeration and commercial building.</td>
</tr>
<tr>
<td>AIRC 31</td>
<td>Commercial Electrical for Air Conditioning and Refrigeration</td>
<td>4</td>
<td>Electrical control of commercial air conditioning and refrigeration equipment emphasizing time clocks, defrost, three phase transformers, three phase motors, timers, sequencers, starting methods and troubleshooting of three phase systems.</td>
</tr>
<tr>
<td>AIRC 32A</td>
<td>Air Properties and Measurement</td>
<td>1.5</td>
<td>Investigates the air-side operating theory and application of comfort cooling systems. This course will broaden the student’s understanding of air conditioning systems by addressing psychrometrics to include the measurement of dry bulb and wet bulb temperatures, relative humidity, dew point temperatures, and sensible and latent heat processes.</td>
</tr>
<tr>
<td>AIRC 32B</td>
<td>Air Distribution Systems</td>
<td>1.5</td>
<td>Designed as a continuation of AIRC 32A and explores airside equipment and duct design applied to built-up and unitary air distribution systems.</td>
</tr>
<tr>
<td>AIRC 34</td>
<td>Advanced Mechanical Refrigeration</td>
<td>4</td>
<td>Advanced principles of mechanical air conditioning and refrigeration based on operating characteristics of working equipment and the interpretation of the pressure-enthalpy chart. Advanced technical aspects of mechanical components will be explored to include compressors, metering devices, pressure regulators, capacity controls, and defrost methods.</td>
</tr>
<tr>
<td>AIRC 37</td>
<td>Pneumatic Controls</td>
<td>2</td>
<td>Principles of mechanical refrigeration based on the refrigeration cycle and associated mechanical components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydration techniques, and the safe handling and containment of refrigerants.</td>
</tr>
<tr>
<td>AIRC 39</td>
<td>Building Automation Systems</td>
<td>4</td>
<td>Principles of building automation systems applied to air conditioning systems, chiller plant operation, and air distribution. Includes the application of variable air volume, constant air systems, multizone systems and controlled devices used in automated air conditioning systems. Emphasis on programming strategies applied to mechanical trainers.</td>
</tr>
<tr>
<td>AIRC 95</td>
<td>Work Experience in Air Conditioning and Refrigeration</td>
<td>1 to 4</td>
<td>Work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
### Course Descriptions

#### AIR TRAFFIC CONTROL

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRT 43</td>
<td>Air Traffic Control Team Skills</td>
<td>1.5 Units</td>
<td>27 hours lecture. Advisory: AIRT 42. Leadership skills for aviation professionals, with emphasis on air traffic control scenarios. Control tower simulations, including communication and conflict resolution. Coordination and control of air traffic utilizing FAA standards and interpersonal team skills.</td>
</tr>
<tr>
<td>AIRT 45</td>
<td>Flight Services</td>
<td>3 Units</td>
<td>54 hours lecture. Advisory: AERO 23, AERO 29. Air traffic control procedures utilized by Flight Service Stations in providing flight assistance and communication services. Air traffic pilot briefings, emergency procedures, flight handling, search and rescue, and introduction to data transmission procedures and services.</td>
</tr>
<tr>
<td>AIRT 47</td>
<td>Work Experience in Air Traffic Control</td>
<td>1 Unit</td>
<td>75 hours lab. Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. On-the-job experience in an approved FAA work station. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
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#### AIRCRAFT MAINTENANCE TECHNOLOGY

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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>AIRM 65A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>13 Units</td>
<td>108 hours lecture. 376 hours lab. Theory and overhaul of aircraft reciprocating and turbine powerplants. Approved and required for the FAA powerplant certification and Airframe and Aircraft Powerplant Maintenance Technology major.</td>
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<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>13 Units</td>
<td>108 hours lecture. 376 hours lab. Reciprocating and turbine engine systems and components. Approved and required for the FAA powerplant certification and Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>13 Units</td>
<td>108 hours lecture. 376 hours lab. Airframe systems and components. Approved and required for the FAA and required airframe certification and the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Airframe Maintenance Technology</td>
<td>13 Units</td>
<td>108 hours lecture. 376 hours lab. Airframe systems and components. Approved and required for the FAA and required airframe certification and the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
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#### AIRM 70A — Aircraft Maintenance Electricity and Electronics

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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity and Electronics</td>
<td>3 Units</td>
<td>108 hours lecture. 72 hours lab. Advisory: AIRM 71. Basic electrical theory including units, terminology, applications of Ohm's Law in series and parallel circuits, nickel cadmium and lead acid storage batteries, generators and related control circuits, electrical wiring practices, and electrical measuring instruments construction and use. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
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</table>

#### AIRM 71 — Aviation Maintenance Science

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6 Units</td>
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#### AIRM 72 — Aviation Materials and Processes

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<tbody>
<tr>
<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
<td>1.5 Units</td>
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#### AIRM 73 — Aviation Welding

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<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
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<td>Course Code</td>
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<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Technology - Work Experience</td>
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<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance Technology</td>
<td>.5 to 1 Unit</td>
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<td>AIRM 90A</td>
<td>Airframe Maintenance Technology</td>
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<td>AIRM 90B</td>
<td>Airframe Maintenance Technology</td>
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<td>AIRM 91A</td>
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<td>AIRM 92A</td>
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<td>AIRM 92B</td>
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<td>AIRM 95A</td>
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<td>AIRM 98A</td>
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<td>AD 1</td>
<td>Alcohol/Drug Dependency</td>
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<td>AD 2</td>
<td>Physiological Effects of Alcohol/Drugs</td>
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<tr>
<td>AD 3</td>
<td>Chemical Dependency: Intervention, Treatment and Recovery</td>
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<td>AD 4</td>
<td>Issues in Domestic Violence</td>
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<td>AD 5</td>
<td>Chemical Dependency: Prevention and Education</td>
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<td>AD 6</td>
<td>Dual Diagnosis</td>
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<td>Group Process and Leadership</td>
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<td>AD 8</td>
<td>Family Counseling</td>
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<td>AD 9</td>
<td>Client Record and Documentation</td>
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<td>AD 10</td>
<td>Techniques of Intervention</td>
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<td>AD 11</td>
<td>Internship/Seminar</td>
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<td>AD 12</td>
<td>Advanced Internship/Seminar</td>
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<td>AMLA 21S</td>
<td>American Language 2 Units</td>
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<td>AMLA 22S</td>
<td>American Language 2 Units</td>
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<tr>
<td>AMLA 23S</td>
<td>American Language Formal Speaking</td>
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COURSE DESCRIPTIONS

AML A 24 — Idiomatic English 2 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
Intermediate course in the study of idiomatic language, including common American idioms and proverbs, as used in everyday language situations

AML A 31R — American Language Basic Reading 4 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: Successful completion of appropriate Reading Placement Test or successful completion of noncredit ESL Level 4
Basic reading and vocabulary for non-native speakers.

AML A 32R — American Language Intermediate Reading 4 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: Successful completion of AMLA 31R or satisfactory score on appropriate Placement Test
Intermediate reading and vocabulary for non-native speakers.

AML A 33R — American Language Advanced Reading 4 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: Completion of AMLA 32R or satisfactory score on appropriate Placement Test
Advanced reading and vocabulary for non-native speakers.

AML A 41W — American Language Basic Writing 4 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Prerequisite: Satisfactory score on the English Placement Test or successful completion of noncredit ESL Level 4
Basic writing practice for non-native English students.

AML A 42W — American Language Intermediate Writing 4 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Prerequisite: Satisfactory score on the English Placement Test or successful completion of AMLA 41W or noncredit ESL Level 5 or 6 or VESL
Intermediate grammar and writing for non-native speakers.

AML A 43W — American Language Advanced Writing 4 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: Satisfactory score on the English Placement Test or successful completion of AMLA 42W
Advisory: AMLA 33R taken prior or concurrently
Advanced grammar and writing for non-native speakers.

AML A 56 — American Language Nouns and Articles 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Concentrates on count and non-count nouns, article usage and other determiners for non-native learners of English. Writing practice and exercises will emphasize correct usage of these structures in writing and speaking.

AML A 57 — American Language Verb Review I 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Concentrates on verb tense, form, and use for non-native learners of English. Practice in present, past, and future verb tense forms, meaning, and use in both spoken and written English, with special emphasis on writing for college courses.

AML A 58 — American Language Verb Review II 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Concentrates on count and non-count nouns, article usage and other determiners for non-native learners of English. Writing practice and exercises will emphasize correct usage of these structures in writing and speaking.

AML A 59 — American Language Prepositions 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Designed to help non-native learners of English practice their use of prepositions in spoken and written English. Students will analyze prepositions and idiomatic expressions through reading and will apply their knowledge to written work.

AML A 60 — American Language Verb Review III 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Advanced work on gerunds, infinitives and participles for non-native English students. Exercises and writing practice will emphasize improved verbal usage in writing.

AML A 61 — American Language Word Forms 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Helps non-native speakers of English practice noun, verb, adjectival and adverb word forms in spoken and written English.

ANATOMY AND PHYSIOLOGY

ANAT 10A — Introductory Human Anatomy 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
A systematic study of the macroscopic and microscopic structures of the human body. Emphasis on cell structures, skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory, endocrine, and reproductive systems.

ANAT 10B — Introductory Human Physiology 4 Units
Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: ANAT 10A or ANAT 35
Advisory: CHEM 10 or CHEM 40
An integrated study of the function of and interaction between the skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory (including electrolyte and acid-base balance), endocrine, and reproductive systems (including human genetics and embryology).

ANAT 35 — Human Anatomy 5 Units
Degree Applicable, CSU, UC
CAN BIOL 10
54 hours lecture
108 hours lab
Advisory: BIOL 1, BIOL 4
Structure of the organ systems at the gross, subgross, and microscopic levels based on human material and dissection of the cat. Designed to serve as an introduction to vertebrate embryology.

ANAT 36 — Human Physiology 5 Units
Degree Applicable, CSU, UC
CAN BIOL 12
54 hours lecture
108 hours lab
Prerequisite: ANAT 35 and CHEM 10 or CHEM 40
Extensive study of human physiology at the cellular and molecular levels covering muscular, nervous, circulatory, respiratory, renal, digestive, endocrine, and reproductive systems. Includes regulation and integration of organ systems where appropriate.
ANTH 1H. Techniques for human prosection. Regional exploration of the human organs at the gross level.

Prerequisite: Completion of ANAT 35

108 hours lab

ANAT 50 — Basic Anatomy and Physiology 3 Units

Degree Applicable, CSU

54 hours lecture

Introduction to human anatomy and physiology by systems, with brief descriptions of biochemistry, cell biology, and molecular biology. Upon completion, students will understand normal functions of major human organ systems and be able to recognize pathologies.

ANTH 1 — Biological Anthropology 3 Units

Degree Applicable, CSU, UC

54 hours lecture

Prerequisite: Eligibility for ENGL 68

The evolutionary biology of primates with particular emphasis on hominid evolution and behavior. The genetic and evolutionary mechanisms underlying evolution, human variation, primate field studies, and the hominid palentological record are stressed.

ANTH 1H — Biological Anthropology - Honors 3 Units

Degree Applicable, CSU, UC

54 hours lecture

Prerequisite: Acceptance into the Honors Program

The evolutionary biology of primates with particular emphasis on hominid evolution and behavior. The genetic and evolutionary mechanisms underlying evolution, human variation, primate field studies, and the hominid palentological record are stressed. This enriched course is designed for the honors program allowing, for example, more student directed discussions and more extensive writing assignments. Students may not receive credit for both ANTH 1 and ANTH 1H.

ANTH 1L — Biological Anthropology Laboratory 1 Unit

Degree Applicable, CSU, UC

54 hours lab

Corequisite: ANTH 1 or ANTH 1H (may have been taken previously)

Scientific study of human evolution. Students will generate and test hypotheses using the techniques and materials of biological anthropology. Includes genetic observations and calculations, osteological techniques and measurements, and primate behavior observations. One field trip to a zoo for primate observation is required.

ANTH 3 — Archaeology 3 Units

Degree Applicable, CSU, UC

(May be taken for option of letter grade or Pass/No Pass)

54 hours lecture

Prerequisite: Eligibility for ENGL 68

Introduction to the aims, methods and ethics of archaeological research and their application to the archaeological record, in contrast to popular depictions of archaeology. Topics include the evolution of culture from the earliest stone toolmakers to the primary civilizations of the Old and New Worlds, with emphasis on the invention and spread of agriculture and the impact of this change on prehistoric cultures.

ANTH 5 — Principles of Cultural Anthropology 3 Units

Degree Applicable, CSU, UC

54 hours lecture

The anthropological approach to the study of human behavior from a cross cultural, comparative, and an evolutionary perspective. An exploration into the languages, economics, sociopolitical systems, religions, and world views of diverse world cultures. A technical presentation is stressed as this course is designed for Social Sciences majors.

ANTH 22 — General Cultural Anthropology 3 Units

Degree Applicable, CSU, UC

54 hours lecture

An introductory course to explore the nature of culture and how cultural anthropologists study cultural phenomena such as language, personality, subsistence, economics, social and political organization, marriage, kinship systems, religion, the arts, and culture change. A substantial amount of case material will be drawn from at least three of the following: African Americans, indigenous peoples of the United States, Asian Americans, Chicano/Latino Americans, and European Americans. This course may meet the cultural diversity requirement at transfer universities.

ANTH 30 — The Native American 3 Units

Degree Applicable, CSU, UC

54 hours lecture

Surveys the prehistory and history of Native Americans. An overview of the classification system used to organize particular groups into culture areas related to adaptive strategies. Identification of world contributions and contemporary issues for modern Native Americans.

ANTH 99 — Special Projects in Anthropology 2 Units

Degree Applicable, CSU

(May be taken four times for credit)

36 hours lecture

To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

ARAB 1 — Elementary Arabic 4 Units

Degree Applicable, CSU, UC

72 hours lecture

Intended for students with little or no previous exposure to Arabic. Begins to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Focuses on mastery of Arabic script, pronunciation, simple grammatical structures, and basic vocabulary, along with an introduction to Arab culture.

ARAB 2 — Elementary Arabic Continued 4 Units

Degree Applicable, CSU, UC

4 hours lecture

Prerequisite: ARAB 1 or equivalent

Continues to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Emphasizes verbs, word patterns, and vocabulary building; introduces short authentic texts. Includes some exposure to Formal Spoken Arabic.

ARCH 10 — Design I - Elements of Design 3 Units

Degree Applicable, CSU, UC

36 hours lecture

72 hours lab

Fundamentals of two- and three-dimensional design and design process. Elements include visualization, perception, presentation, expression, and site analysis of physical/contextual/cultural aspects of design and/or the urban environment. Portfolio will be produced.

ARCH 11 — Architectural Drawing 3 Units

Degree Applicable, CSU, UC

36 hours lecture

72 hours lab

Advisory: Eligibility for MATH 51

Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.
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<th>Course Code</th>
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<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>ARCH 12</td>
<td>Architectural Materials and Specifications</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
<td>Advisory: Eligibility for MATH 51</td>
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<td>Application and development of construction materials. Formulation of materials specification used in architecture and the construction industry.</td>
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<tr>
<td>ARCH 13</td>
<td>Architectural Illustration</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>36 hours lecture</td>
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<td>72 hours lab</td>
<td>Advisory: ARCH 11 or equivalent experience</td>
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<td>Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio.</td>
</tr>
<tr>
<td>ARCH 14</td>
<td>Building and Zoning Codes</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
<td>Advisory: ARCH 11 or equivalent experience</td>
</tr>
<tr>
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<td>Building and zoning codes, including code requirements related to architectural design and construction documentation. Process of obtaining design approvals and building permits from proper authorities having jurisdiction.</td>
</tr>
<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings I</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 11, ARCH 12, ARCH 14, and eligibility for MATH 51</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Methods and techniques used in the development of architectural construction documents for light frame structures (Type V construction) including construction theory, practice, and working drawings. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td>54 hours lab</td>
<td>Advisory: Eligibility for MATH 51</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications).</td>
</tr>
<tr>
<td>ARCH 18</td>
<td>Architectural Computer Aided Design Elements</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 11, ARCH 16 or equivalent experience</td>
</tr>
<tr>
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<td></td>
<td>Intermediate CAD (Computer Aided Design and Drafting) specifically for architectural design and production. Portfolio of 2-D drawings and 3-D CAD models will be produced.</td>
</tr>
<tr>
<td>ARCH 21</td>
<td>Design II - Architectural Design</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 10, ARCH 11, ARCH 13</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Application of methods and theory used in architectural design projects. Includes graphic technique, design process, site analysis, presentation drawings and construction principles. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 23</td>
<td>Architectural Presentations</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 10, ARCH 11 taken prior</td>
</tr>
<tr>
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<td></td>
<td>Analysis and preparation of architectural presentation projects, including schematic and final design, architectural models, oral presentation techniques, board layouts using hand-drawn and computer-aided techniques, and development of project portfolio.</td>
</tr>
<tr>
<td>ARCH 26</td>
<td>Architectural CAD Working Drawings</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 15, ARCH 18 or equivalent experience</td>
</tr>
<tr>
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<td>Advanced architectural CAD drawings. Portfolio of working and presentation applications of integrated 2-D and 3-D CAD models will be produced.</td>
</tr>
<tr>
<td>ARCH 27</td>
<td>Design III - Environmental Design</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 21, ARCH 23 or equivalent experience</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Application of theory and principles of environmental design as applied to architecture, landscape architecture, urban design, urban planning and (civil) engineering. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 28</td>
<td>Architectural CAD 3-D Illustration and Animation</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 18 or equivalent experience</td>
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<td>Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual &quot;walk-through&quot; and &quot;fly-through&quot; of interior/exterior 3-D models with photo-realistic materials and lighting will be produced.</td>
</tr>
<tr>
<td>ARCH 29</td>
<td>Design IV - Advanced Project</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td>72 hours lab</td>
<td>Advisory: ARCH 23, ARCH 27 or equivalent experience</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Advanced design seminars and complex building design projects in architecture, including portfolio development.</td>
</tr>
<tr>
<td>ARCH 31</td>
<td>World Architecture I</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
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<td></td>
<td>Development of architecture including ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Influence of geography, religion, and socie- economic movements on architecture.</td>
</tr>
<tr>
<td>ARCH 32</td>
<td>World Architecture II</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.</td>
</tr>
<tr>
<td>ARCH 89</td>
<td>Architectural Work Experience</td>
<td>1 to 2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75 to 150 hours lab</td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</td>
</tr>
<tr>
<td>AHIS 1</td>
<td>Understanding the Visual Arts</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
</tr>
<tr>
<td></td>
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<td>Fundamentals of visual art forms and the role art plays in various historical periods and cultures. Students may not earn credit for both AHIS 1 and ARTH 1.</td>
</tr>
<tr>
<td>AHIS 1H</td>
<td>Understanding the Visual Arts - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
</tr>
</tbody>
</table>
|             |              |                  | Fundamentals of visual art forms and the role art plays in various historical periods and cultures. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 1 (formerly ARTH 1) and AHIS 1H.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 2</td>
<td>Topics in Visual Art and Culture</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 3</td>
<td>History of Women and Gender in Art</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 4</td>
<td>History of Western Art: Prehistoric</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 5</td>
<td>History of Western Art: Renaissance</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 6</td>
<td>History of Modern Art</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 7</td>
<td>History of History Art: Renaissance</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 8</td>
<td>History of Modern Art</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 9</td>
<td>History of Asian Art</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 10</td>
<td>History of Greek and Roman Art</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 12</td>
<td>History of Precolumbian Art</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 13</td>
<td>History of African, Oceanic, and</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>AHIS 14</td>
<td>History of Pre-Columbian Art</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Prerequisite</td>
</tr>
</tbody>
</table>

AHIS 2: A thematic introduction to selected works of art and visual culture, providing a framework for understanding the relationship between art and society and the differing ways art can be viewed. A global and/or interdisciplinary approach will be taken. Topics will vary with instructor.

AHIS 3: Survey of the roles of women and gender in cultural creation and production with a focus on the visual arts. A historical and global survey, covering the role of women artists in the history of art and the representation of gender in a variety of cultures and time periods. Students may not receive credit for both AHIS 2 and AHIS 2H.

AHIS 4: A critical history of Greek and Roman art before 500 CE. Works of art examined in their cultural contexts. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 4 (formerly ARTA 4) and AHIS 4H.

AHIS 5: Western art from the Prehistoric through Gothic periods demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 5 (formerly ARTA 5) and AHIS 5H.

AHIS 6: Major monuments of sculpture, painting, architecture, body decoration, and ritual objects will be studied in their religious and cultural contexts. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 6 (formerly ARTA 6) and AHIS 6H.

AHIS 9: An examination of Asian artistic traditions. Major monuments of painting, sculpture, architecture, and other visual art forms are studied within their religious and cultural contexts.

AHIS 10: A critical history of Greek and Roman art before 500 CE. Works of art and architecture will be examined in their cultural contexts. Historical perceptions of Classical art and culture and their impact on Europe and America will be studied.

AHIS 11: Examination of the traditional arts of African tribes and kingdoms, Oceania and Australia, and Native North America. Visual arts including painting, sculpture, architecture, body decoration, and ritual objects will be studied in their cultural contexts.

AHIS 12: The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Inca will be studied in their cultural contexts.
## ART: ADVERTISING DESIGN/GRAPHICS

### ARTC 60 — Graphic Design: Lettering and Typography 3 Units
36 hours lecture
72 hours lab
Prerequisite: Eligibility for ENGL 68
An entry level course emphasizing creative expression through a variation of design concepts, letter forms and style variation. Emphasis is placed on tools and techniques as applied to comprehensive graphic design images.

### ARTC 66 — Portfolio 3 Units
36 hours lecture
72 hours lab
Prerequisite: Completion of a minimum of 15 semester units in Advertising Design, Architectural Design, Art, Fashion Merchandising, Industrial Design, Interior Design or Photography
This course aids individuals from any of the visual art disciplines to assemble a portfolio, book, or package of works of art (that represents their individual development, interests and/or strengths) for use to enter a four-year institution, professional art school, or a professional field of choice.

### ARTC 70 — Computer Graphics: Introduction 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
72 hours lab
Introduces basic art, design and color theory principles to the application of 2-dimensional computer graphics. Explores basic computer concepts applied to graphic projects utilizing professional imaging software programs. Introduces the use of color scanner, digitized artist tablet, laser and color printers. Software: Adobe Photoshop, Adobe Illustrator.

### ARTC 74 — Computer Graphics: Web Design 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Professional design concepts applied to the common elements of Web site design and development including page and site design, usability, editing and formatting, graphics preparation, multimedia technologies, tables, forms, frames, cascading style sheets (CSS). An emphasis will be placed on the exploration of new tools and concepts of Web design including Flash navigation, interactivity, animation, and video.

### ARTC 77 — Computer Graphics: Exploring Digital Illustration 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Advisory: COMP 13
Basic principles of art, design and color. Theory as applied to digital hand illustration will be explored and original illustrations created through use of professional illustration software.

### ARTC 78A — Work Experience in Advertising Design/Illustration 1 to 3 Units
(May be taken four times for credit)
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Advisory: ARTD 20 or ARTD 15A or ARTD 17A or ANIM 104 (may have been taken previously)
Provides students with on-the-job experience in advertising design, illustration and other graphic design and related areas in an approved workplace which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 unpaid clock hours per semester is required for each unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### ARTC 165 — Illustration 3 Units
36 hours lecture
72 hours lab
Corequisite: ARTD 20 or AR TD 15A or ARTD 17A or ANIM 104 (may have been taken previously)
Introduction to contemporary illustration with an emphasis on story, editorial, and advertising applications. Course covers the proper uses of illustrative rendering techniques in traditional drawing and painting media, paper, and their integration to electronic media. Using professional illustration software, peripherals, and color laser printing, students advance to produce more complex illustrations.

### ARTC 167 — Computer Graphics 2: Advanced Layout 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Advanced visual communication strategies related to digital layout and design in Advertising and Graphic Design. Introduces page layout, and image processing in preparation of newsletters, brochures, posters, and advertising collateral. Emphasis is placed on clarity of communication, design and technical skills. Software: Adobe Creative Suite, QuarkXpress.

### ARTC 169 — Graphic Design: Layout 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Provides students with on-the-job experience in advertising design, illustration and other graphic design and related areas in an approved workplace which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 unpaid clock hours per semester is required for each unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### ARTC 172 — Computer Graphics - Multimedia 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Provides students with on-the-job experience in advertising design, illustration and other graphic design and related areas in an approved workplace which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 unpaid clock hours per semester is required for each unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### ARTC 175 — Digital Illustration 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Provides students with on-the-job experience in advertising design, illustration and other graphic design and related areas in an approved workplace which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 unpaid clock hours per semester is required for each unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### ARTC 178 — Work Experience in Advertising Design/ Illustration 1 to 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Provides students with on-the-job experience in advertising design, illustration and other graphic design and related areas in an approved workplace which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 unpaid clock hours per semester is required for each unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### ARTC 184 — Graphic Design: Typography 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Explores contemporary and traditional approaches to lettering and typography. The course covers the proper uses of typographical rendering techniques in traditional drawing and painting media, paper, and their integration to electronic media. Using professional illustration software, peripherals, and color laser printing, students advance to produce more complex illustrations.

### ARTC 186 — Graphic Design: Digital Photography 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Explores contemporary and traditional approaches to digital photography. The course covers the proper uses of typographical rendering techniques in traditional drawing and painting media, paper, and their integration to electronic media. Using professional illustration software, peripherals, and color laser printing, students advance to produce more complex illustrations.

### ARTC 187 — Graphic Design: Typography 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Explores contemporary and traditional approaches to lettering and typography. The course covers the proper uses of typographical rendering techniques in traditional drawing and painting media, paper, and their integration to electronic media. Using professional illustration software, peripherals, and color laser printing, students advance to produce more complex illustrations.

### ARTC 188 — Graphic Design: Digital Photography 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Explores contemporary and traditional approaches to digital photography. The course covers the proper uses of typographical rendering techniques in traditional drawing and painting media, paper, and their integration to electronic media. Using professional illustration software, peripherals, and color laser printing, students advance to produce more complex illustrations.

### ART: ANIMATION

### ANIM 101 — Drawing - Gesture and Figure 3 Units
(May be taken four times for credit)
36 hours lecture
72 hours lab
Explores contemporary and traditional approaches to sketching basic objects and the human figure using drawing techniques for rapid visualization. Emphasizes and develops perceptual and technical skills for capturing basic visual mechanics of motion and gesture. Students who repeat this course will improve skills through further instruction and practice.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 104</td>
<td>Drawing Fundamentals</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<td>Emphasizes creative expression through the use of drawing media and techniques. Emphasis is placed on light logic, atmospheric and linear perspective. Includes basic drawing skills and methods of achieving compositional integrity through objective analysis and synthesis.</td>
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<tr>
<td></td>
<td>72 hours lab</td>
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<tr>
<td>ANIM 107</td>
<td>Figure in Motion</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
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<td>(May be taken four times for credit)</td>
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<td>Drawing human figures in motion. Anatomical landmarks, proportion, light and shadow, line composition, figure/ground relationship, the interaction of form and content, and the expressive potential of the human figure will be explored. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>72 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: ANIM 101</td>
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<tr>
<td>ANIM 108</td>
<td>Principles of Animation</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<td>Explores the principles of drawing for traditional animation concentrating on the mechanics of movement, timing, and emotion for the creation of expressive line drawings.</td>
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<td>72 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: ANIM 108</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANIM 109</td>
<td>Advanced Principles of Animation</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Advanced principles of animation including mechanics of motion, weighted movement, lip sync and expression applied to story, staging, and character development. Focus will be on the animated film process from script to storyboards, timing sheets, key posing, inbetweening and clean up through the completion of a final animation.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
<td></td>
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<tr>
<td></td>
<td>Prerequisite: ANIM 108</td>
<td></td>
<td></td>
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<tr>
<td>ANIM 110</td>
<td>Animal Drawing</td>
<td>1.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>(May be taken two times for credit)</td>
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<td>Exploring both traditional and contemporary approaches to sketching and drawing animals. Gesture, anatomical structure, proportion, line and action analysis will be explored. Requires several off-campus field trips. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>36 hours lab</td>
<td></td>
<td></td>
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<tr>
<td>ANIM 115</td>
<td>Storyboarding</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Storyboarding for animation including script, idea and action development. Staging, expression, emotional appeal, camera movement, dialogue and character enhancement, and development will be included.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
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<td></td>
<td>Prerequisite: ARTD 15A or ANIM 104</td>
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<tr>
<td>ANIM 116</td>
<td>Character Development</td>
<td>1.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td>Techniques for innovation and development of animated characters. Observation of details for drawings of character attitude, personality, movement, posing, point-of-view, dialog/mouth positions, body language, and development of consistent drawing techniques for model sheets.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Prerequisite: ARTD 15A or ANIM 104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANIM 117</td>
<td>Animation Background Layout</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Basic principles of design and composition as applied to layout and background design for animation. Drawing and painting techniques exploring rendering, modeling, light logic, perspective, color, space and environments are included.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ANIM 115 or ARTD 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANIM 118</td>
<td>Background Painting</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Analysis and production of environments for scenes in animation. Emphasis on the study of light logic and color as they pertain to the creation of atmosphere, mood and environments.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANIM 119</td>
<td>Portfolio</td>
<td>1.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td>Production of a portfolio representative of student interest, strength and skill for entry into animation fields, professional schools, or baccalaureate institutions. Selection of work for a portfolio will be determined by requirements of the animation specialty and institution to which it is directed.</td>
</tr>
<tr>
<td></td>
<td>36 hours lab</td>
<td></td>
<td></td>
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<tr>
<td>ANIM 120</td>
<td>Script Development for Animation</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td>Creative and problem solving processes as applied to story and script development. Scripts screenplays, live action and animated film, and the practical application of story adaptation to screenplay.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
<td></td>
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</tr>
<tr>
<td>ANIM 130</td>
<td>Introduction to 3-D Computer Animation</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Explores 3-D computer animation interfaces, use of polygons, perspective views, contouring, links, external processors for special computer effects, and using the Alias MAYA software. 3-D modeling, rendering, and animation of primitive and complex poly-spline meshes used in environments, and following a story board developed for scene sequencing are included.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
<td></td>
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<tr>
<td>ANIM 132</td>
<td>Modeling, Texture Mapping and Lighting</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>3-D modeling, rendering, and animation of primitive and complex poly-spline meshes used in environments. Includes camera animation with stage and environmental scenes featuring fly-throughs and colored lighting effects.</td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
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<tr>
<td>ANIM 134</td>
<td>Visual Effects I: Dynamics</td>
<td>1.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td>Advanced course exploring the animation techniques called dynamics. Covers building material for 3-D objects using bitmaps to create texture maps and using light effects in 3-D computer environments.</td>
</tr>
<tr>
<td></td>
<td>36 hours lab</td>
<td></td>
<td>Advisory: ANIM 132</td>
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<tr>
<td>ANIM 135</td>
<td>Visual Effects II: Particle Systems</td>
<td>1.5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td>Advanced course in the creation of computer animated particle systems that imitate the natural forces of nature, the physical forces of the universe and plasma forces of combustion.</td>
</tr>
<tr>
<td></td>
<td>36 hours lab</td>
<td></td>
<td>Advisory: ANIM 134</td>
</tr>
</tbody>
</table>
ANIM 148 — Demo-Reel 1.5 Units
36 hours lecture
18 hours lab
Prerequisite: ANIM 130
Production of a demo-reel representative of student interest, non-art majors emphasizing creative expression through the visual arts. Painting, drawing, printmaking and sculpture are explored to introduce the student through various media to the arts.

ART: BASIC STUDIO ARTS
ARP 1 — Understanding the Visual Arts 3 Units
36 hours lecture
Prerequisite: Eligibility for ENGL 68
Fundamentals of visual art forms and the role art plays in various historical periods and cultures. Students may not earn credit for both ARPT 1 and AHIS 1.

ART 14 — Basic Studio Arts 3 Units
36 hours lecture
72 hours lab
Prerequisite: Eligibility for ENGL 68
An entry level course designed for non-art majors emphasizing creative expression through the visual arts. Painting, drawing, printmaking and sculpture are explored to introduce the student through various media to the arts.

ART 20 — Art, Artists and Society 3 Units
36 hours lecture
72 hours lab
Prerequisite: Satisfactory completion of all courses within a given art emphasis
Extended studio experiences supplementary to those available in the courses within a given art emphasis and allows the student to pursue more advanced and complex studio projects and experiments. Emphasis is placed upon the development of an individual creative direction. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART: THREE-DIMENSIONAL STUDIO ARTS</strong></td>
</tr>
<tr>
<td>ARTS 22 — Design: Three-Dimensional</td>
</tr>
<tr>
<td>(CAN ART16) Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
<tr>
<td>72 hours lab</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 6B</td>
</tr>
<tr>
<td>Develops perception and enhances decision making within the three-dimensional world. Emphasis is placed on concept development and artistic expression utilizing principles and elements of three-dimensional design as well as practical experiments with various media.</td>
</tr>
</tbody>
</table>

| ARTS 30A — Ceramics: Beginning  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| Introduction to clay, glaze and firing through projects that employ techniques in hand building and on the wheel. Emphasis is on developing skills, vocabulary and analysis of form, function and aesthetics through projects and oral and written criticism. |

| ARTS 30B — Ceramics: Beginning  | 3 Units |
| Degree Applicable, CSU, UC |
| (May be taken for option of letter grade or Pass/No Pass) |
| 36 hours lecture |
| 72 hours lab |
| Prerequisite: ARTS 30A |
| A continuation into the study of clay, glazes and firing, developing skills introduced in ARTS 30A. Emphasis is on more advanced techniques, using larger amounts of clay and developing the aesthetics of design through form, function and surface treatment. |

| ARTS 31A — Ceramics: Intermediate  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| Prerequisite: ARTS 30B |
| Integrating materials and design through advanced problems in the techniques of clay construction, glazing and firing. |

| ARTS 31B — Ceramics: Intermediate  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| Prerequisite: ARTS 31A |
| A continuation of ARTS 31A, examining the problems of aesthetically integrating materials and design by means of advanced problems in the technique of clay construction, glazing and firing. Emphasis is on integrating form and content, mixing glazes and the variety of firing processes. |

| ARTS 33 — Ceramics: Hand Construction  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| Introduction to clay, glazes and firing through projects that are hand built. Emphasis is on developing skills and vocabulary and analysis of form, function, aesthetics and craftsmanship through projects, discussion and oral/written criticism. |

| ARTS 40A — Sculpture: Beginning  | 3 Units |
| (CAN ART12) Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| An overview of traditional and contemporary approaches to sculpture. Emphasizes principles of sculptural design and concept development. Includes exploration of technique and materials as an integral part of creative expression. |

| ARTS 40B — Sculpture: Beginning  | 3 Units |
| Degree Applicable, CSU, UC |
| (May be taken for option of letter grade or Pass/No Pass) |
| 36 hours lecture |
| 72 hours lab |
| Prerequisite: ARTS 40A |
| Advanced projects in subtractive, additive and manipulative approaches are explored. Students who repeat this course will improve skills by further instruction and practice. |

| ARTS 41A — Sculpture: Life  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure. |

| ARTS 41B — Sculpture: Life  | 3 Units |
| Degree Applicable, CSU, UC |
| (May be taken for option of letter grade or Pass/No Pass) |
| 36 hours lecture |
| 72 hours lab |
| Prerequisite: ARTS 41A |
| (May be taken for option of letter grade or Pass/No Pass) |
| 36 hours lecture |
| 72 hours lab |
| Advisory: ARTS 41 and/or ARTS 42 |
| Modeling, molding, casting and application of special effects makeup appliances and masks to the human figure. Emphasis on human anatomy as it informs sculptural form and specialized molding and casting techniques and materials. Students who repeat this course will improve skills by further instruction and practice. |

| ARTS 42 — Sculpture: Mold Making  | 3 Units |
| Degree Applicable |
| (May be taken for option of letter grade or Pass/No Pass) |
| 36 hours lecture |
| 72 hours lab |
| Construction and use of flexible and plaster molds. Students who repeat this course will improve skills by further instruction and practice. |

| ARTD 15A — Drawing: Beginning  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| An entry level course emphasizing creative expression through the use of drawing media. Emphasis is placed on basic drawing methods and skills, composition and exploration of drawing media. |

| ARTD 15B — Drawing: Beginning  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| Prerequisite: ARTD 15A |
| Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles. |

| ARTD 16 — Drawing: Perspective  | 3 Units |
| Degree Applicable, CSU, UC |
| 36 hours lecture |
| 72 hours lab |
| Prerequisite: ARTD 15A or ANIM 104 |
| Drawing using the elements and principles of linear perspective with lights and shadows to represent natural and fabricated forms. Emphasizes methods and techniques directly related to the artist’s needs. |
**Course Descriptions**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites/Notes</th>
<th>Lecture</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTD 17A</td>
<td>Drawing: Life (May be taken two times for credit)</td>
<td>3</td>
<td>(CAN ART24) Degree Applicable, CSU, UC</td>
<td>36</td>
<td>72</td>
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<tr>
<td>ARTD 20</td>
<td>Design: Two Dimensional</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>36</td>
<td>72</td>
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<tr>
<td>ARTD 21</td>
<td>Design: Color and Composition</td>
<td>3</td>
<td>(CAN ART22) Degree Applicable, CSU, UC</td>
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<td>72</td>
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<tr>
<td>ARTD 22</td>
<td>Drawing: Life and Hands</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
<td>18</td>
<td>36</td>
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<tr>
<td>ARTD 23A</td>
<td>Painting: Beginning</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>36</td>
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<tr>
<td>ARTD 24</td>
<td>Design: Intermediate</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 25</td>
<td>Painting: Intermediate</td>
<td>3</td>
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<td>72</td>
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<tr>
<td>ARTD 26</td>
<td>Painting: Intermediate</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 27</td>
<td>Painting: Watercolor</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 28</td>
<td>Painting: Advanced</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 29</td>
<td>Painting: Advanced</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 30</td>
<td>Painting: Advanced</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 31</td>
<td>Painting: Advanced</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 32</td>
<td>Painting: Advanced</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 33</td>
<td>Painting: Advanced</td>
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<tr>
<td>ARTD 34</td>
<td>Painting: Advanced</td>
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<tr>
<td>ARTD 35</td>
<td>Painting: Advanced</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 36</td>
<td>Painting: Advanced</td>
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<tr>
<td>ARTD 37</td>
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<td>ARTD 38</td>
<td>Painting: Advanced</td>
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<tr>
<td>ARTD 39</td>
<td>Painting: Advanced</td>
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<tr>
<td>ARTD 40</td>
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<tr>
<td>ARTD 41</td>
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<td>3</td>
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<tr>
<td>ARTD 42</td>
<td>Painting: Advanced</td>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 43</td>
<td>Introduction to Printmaking</td>
<td>3</td>
<td>(CAN ART20) Degree Applicable, CSU, UC</td>
<td>36</td>
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<tr>
<td>ARTD 44</td>
<td>Printmaking: Relief and Lithography</td>
<td>3</td>
<td>(CAN ART20) Degree Applicable, CSU, UC</td>
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<tr>
<td>ARTD 45</td>
<td>Printmaking: Collagraph/Monotype/ Silkscreen</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>36</td>
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</tbody>
</table>

**Astronomy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 5</td>
<td>Introduction to Astronomy</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 10</td>
<td>Advanced Calculus</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 15</td>
<td>Physical Optics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 20</td>
<td>Computational Physics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 25</td>
<td>Statistical Mechanics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 30</td>
<td>Analytical Mechanics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ASTR 35</td>
<td>Environmental Science</td>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ASTR 40</td>
<td>Astrophysics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 45</td>
<td>Astronomical Instrumentation</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>ASTR 50</td>
<td>Analytical and Technical Astronomy</td>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ASTR 60</td>
<td>Practical Astronomy</td>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ASTR 70</td>
<td>Advanced Analytical Astronomy</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ASTR 80</td>
<td>Advanced Analytical Astronomy</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>ASTR 90</td>
<td>Advanced Analytical Astronomy</td>
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<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 100</td>
<td>Advanced Analytical Astronomy</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

54 hours lecture

**Prerequisites:** Eligibility for ENGL 1A

A non-technical survey of the Universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; results of space exploration and modern cosmology. Enroll in ASTR 5L to receive laboratory science credit. Field trips may be required.
Course Descriptions

ASTR 5H — Introduction to Astronomy - Honors 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 1A; acceptance into Honors Program
An honors course designed to provide an enriched experience. A non-technical survey of the Universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; results of space exploration and modern cosmology. Enroll in ASTR 5L to receive laboratory science credit. Field trips may be required. Students may not receive credit for both ASTR 5H and ASTR 5.

ASTR 5L — Astronomical Observing Laboratory 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Corequisite: ASTR 5 or ASTR 7 or ASTR 8 (may have been taken previously)
Provides practical experience in astronomy including use of telescopes and demonstrations in the college planetarium. Occasional evening observing sessions with the telescopes and other field trips are required.

ASTR 7 — Geology of the Solar System 3 Units
Degree Applicable, CSU
54 hours lecture
A study of the Earth-like planets, satellites, and meteorites, from a geological point of view. Surveys geological methods and their application to the study of cratering, tectonic and volcanic activity, weathering, rock formation, landsliding, erosion, faulting, etc. Emphasis on solar system bodies other than Earth. Field trips may be required.

ASTR 8 — Introduction to Stars, Galaxies, and the Universe 3 Units
Degree Applicable, CSU
54 hours lecture
Introduction to astronomy with emphasis on the structure and evolution of stars, galaxies, and the universe. Field trips required.

ASTR 99 — Special Projects in Astronomy 2 Units
Degree Applicable, CSU
36 hours lecture
In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Students who repeat this course will improve skills through further instruction and practice.

BIOI 1 — General Biology 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
An introduction to the major principles and concepts of biology, including cellular biology, energy relationships, biological systems, heredity, evolution and ecology. BIOL 1 is recommended for non-majors. BIOL 4 is recommended for biology majors and those majors requiring a more rigorous biology background.

BIOI 2 — Plant and Animal Biology 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: BIOL 1 or BIOL 4; and Math 71
Basic structures and functions of plants and animals including concepts in systematics, evolution, physiology, ecology, and biotic relationships.

BIOI 3 — Ecology and Field Biology 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: BIOL 1 or BIOL 4; and Math 71
Basic structures and functions of plants and animals including concepts in systematics, evolution, physiology, ecology, and biotic relationships.

BIOI 4 — Biology for Majors (CAN BIOL02) 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: CHEM 10 or CHEM 40, and MATH 71
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.

BIOI 4H — Biology for Majors - Honors (CAN BIOL02) 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program, CHEM 10, and MATH 71
Explores core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 4 and BIOL 4H.

BIOI 5 — Contemporary Health Issues 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.

BIOI 6 — Humans and the Environment 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.

BIOI 6L — Humans and the Environment Laboratory 2 Units
Degree Applicable, CSU, UC
108 hours lab
Corequisite: BIOI 6 (may have been taken previously)
Provides practical experience in the study of the major principles and concepts of biology. Includes two laboratory hours per week; most trips require significant amounts of walking. Course includes one weekend field trip.

BIOI 8 — Cell and Molecular Biology 4 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: CHEM 10 or CHEM 40, and MATH 71
Provides a basic foundation in cell and molecular biology, including cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.

BIOI 10 — Human and the Environment Laboratory 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Corequisite: BIOI 10 (may have been taken previously)
Provides practical experience in the study of the major principles and concepts of biology. Includes two laboratory hours per week; most trips require significant amounts of walking. Course includes one weekend field trip.

BIOI 12 — Natural History of California 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Explores core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.

BIOI 12A — Special Projects in Biology 2 Units
Degree Applicable, CSU, UC
36 hours lecture
In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Students who repeat this course will improve skills through further instruction and practice.

BIOI 12A — Special Projects in Biology 3 Units
Degree Applicable, CSU, UC
36 hours lecture
Prerequisite: Acceptance into the Honors Program, CHEM 10, and MATH 71
Explores core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 4 and BIOL 4H.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU</th>
<th>UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 12B</td>
<td>Natural History of California</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td>BIOL 13</td>
<td>Human Reproduction, Development and Aging</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
</tr>
<tr>
<td>BIOL 15</td>
<td>Human Sexuality</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
</tr>
<tr>
<td>BIOL 15H</td>
<td>Human Sexuality - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
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<tr>
<td>BIOL 17</td>
<td>Neurobiology and Behavior</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
</tr>
<tr>
<td>BIOL 20</td>
<td>Marine Biology</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
</tr>
<tr>
<td>BIOL 21</td>
<td>Marine Biology Laboratory</td>
<td>1</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
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<tr>
<td>BIOL 34</td>
<td>Fundamentals of Genetics</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>UC</td>
</tr>
<tr>
<td>BIOL 50</td>
<td>Biology Basic Skills</td>
<td>.5</td>
<td>Not Degree Applicable</td>
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<tr>
<td>BIOL 99A</td>
<td>Special Projects in Biology</td>
<td>1 to 2</td>
<td>Degree Applicable</td>
<td>CSU</td>
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</tr>
<tr>
<td>BTNY 3</td>
<td>Plant Structures, Functions, and Diversity</td>
<td>5</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>5</td>
<td>Degree Applicable</td>
<td>CSU</td>
<td>UC</td>
</tr>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
<td>3</td>
<td>Degree Applicable</td>
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</tbody>
</table>
BUSA 21 — Cost Accounting  
4 Units  
Degree Applicable  
72 hours lecture  
18 hours lab  
Prerequisite: BUSA 8  
Practical and theoretical concepts of cost accounting. Includes variable and fixed costs, cost-volume-profit analysis, job order and process costing, activity-based costing, general and flexible budgeting, standard costs, product cost/pricing methods, cost allocation, inventory management, capital budgeting, and transfer pricing.

BUSA 52 — Intermediate Accounting  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSA 8  
Detailed review of basic accounting concepts and principles and an in-depth analysis of the balance sheet and income statement. Emphasis is placed on the changing nature of principles and practices, the application of present-value concepts, the complexity of transactions that arise in a complex economic environment and the use of accounting information in decision making.

BUSA 53 — Ten-Key Calculations  
2 Units  
Degree Applicable  
18 hours lecture  
54 hours lab  
Prerequisite: BUSA 68 or eligibility for MATH 50  
Operation of electronic calculators by the touch method to solve basic business and accounting problems. Focuses on the application of calculator features to specific business concepts including banking records, payroll, invoice pricing and inventory.

BUSA 58 — Federal Income Tax Law  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSA 7 or BUSA 72  
Federal and state income tax laws as related to individuals, partnerships, and corporation taxation including interpretations of recent changes. Emphasis is placed on individual income taxes and related problems in research through the use of a federal tax reporting service.

BUSA 68 — Business Mathematics  
3 Units  
Not Degree Applicable  
54 hours lecture  
Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.

BUSA 70 — Payroll and Tax Accounting  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: Eligibility for BUSA 71  
Examines all areas of on-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal, and state income taxes and their reconciliation. Laws related to Worker's Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.

BUSA 71 — Financial Planning  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Functional approach to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.

BUSA 72 — Bookkeeping - Accounting  
5 Units  
Degree Applicable  
90 hours lecture  
Prerequisite: BUSA 68 or eligibility for MATH 50  
Fundamental bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of a practice set.

BUSA 75 — Using Microcomputers in Financial Accounting  
1 Unit  
Degree Applicable  
18 hours lecture  
Prerequisite: BUSA 7 or BUSA 72  
Application of basic accounting concepts utilizing a computerized ledger software program. Hands-on use of a microcomputer to process accounting transactions, prepare statements and reports, and complete accounting cycle tasks. Completion of a computerized accounting practice set will be required.

BUSA 76 — Using Microcomputers in Managerial Accounting  
1 Unit  
Degree Applicable  
18 hours lecture  
Prerequisite: BUSA 7 or BUSA 72  
Analyze financial data and prepare managerial accounting reports using Excel software. Development of “what-if” formulas to be used as an aid in decision-making. Manufacturing and consolidation worksheets, financial statement analysis, and statement of cash flows.

BUSA 81 — Work Experience in Accounting  
1 to 4 Units  
Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
75 to 300 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
Advisory: BUSA 7 or BUSA 72  
Provides accounting students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.

BUSC 1A — Principles of Economics - Macroeconomics  
3 Units  
(CAN ECON02)  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A  
Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debts; international trade and finance.

BUSC 1AH — Principles of Economics - Macroeconomics  
3 Units — Honors  
(CAN ECON02)  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debts; international trade and finance. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 1A and BUSC 1AH.

BUSC 1B — Principles of Economics - Microeconomics  
3 Units  
(CAN ECON04)  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: BUSC 1A or BUSC 1AH  
Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice; income distribution; externalities and government regulation; comparative economic systems.
BUSL 18H — Principles of Economics - Microeconomics 3 Units
Honors
(CAN ECON04) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: BUSC 1A or BUSC 1AH
Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice, income distribution, externalities and government regulations; comparative economic systems. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 1A and BUSC 1AH.

BUSL 18 — Business Law 3 Units
(CAN BUS08) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of business law emphasizing legal setting of business, nature of the law and court procedure, principles of contract law, sales of goods under the Uniform Commercial Code, personal property, bailments, and secured transactions.

BUSL 19 — Advanced Business Law 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: BUSL 18
Principles of business law emphasizing commercial paper, agency, partnerships, corporations, bankruptcy, regulation of trade and real property.

BUSL 20 — International Business Law 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68
A comparative approach to the study of the international legal environment for business. Cultural, political, economic and ethical issues are emphasized as well as traditional business law subjects such as sales, commercial paper, corporate law, agency, licensing, employment, crimes, trade regulation and technology transfers.

BUSL 20 — International Business Law 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing, and strategic planning.

BUSM 25 — Principles of E-Commerce 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
A hands-on course focusing on learning the principles of E-commerce through the use of the internet. Students study the economic importance of E-commerce domestically and internationally. Includes uses of the internet, consumer buying, retail and business purchases, internet marketing, digital advertising, global E-commerce and business Web sites.

BUSM 50 — World Culture: A Business Perspective 3 Units
Degree Applicable, CU
54 hours lecture
An overview of the effects of culture on business communication and interaction. Cultural roles and components are described and related to the business environment and the student’s own culture.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>Practical problems encountered in organizing and operating a small business enterprise: initiating the business, financial and administrative control, legal and government relationships and other related considerations.</td>
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<tr>
<td>BUSM 81</td>
<td>Work Experience in Business</td>
<td>1 to 4</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td>75 to 300 hours lab</td>
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<td>Corequisite: BUSM 20 (may have been taken previously)</td>
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<td></td>
<td>Provides business students with actual on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>BUSM 85</td>
<td>Special Issues in Business</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken two times for credit)</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Provides business majors with a forum to gain knowledge, develop techniques, problem solve and implement an actual business plan. Special emphasis will be placed on the particular project of the actual business used as the class project. Students who repeat this course will improve skills through further instruction and practice.</td>
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</table>

**BUSINESS: OFFICE TECHNOLOGY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>Thorough training in the skills and techniques of English, as applied to business situations, with emphasis on effective paragraphs and memos.</td>
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<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>Written communications including letters and memos meeting a variety of situations in the business environment. Includes writing of good news, bad news, sales, claims, and persuasive correspondence; letters and resumes appropriate to job seeking and application; and practising oral skills as applied to job interviews and business reports.</td>
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</table>

**BUSINESS: PARALEGAL**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLGL 30</td>
<td>Introduction to Paralegal/Legal</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>Basic knowledge required of paralegals. An overview of the federal and state legal systems, the relationship of paralegals to attorneys, an introduction to legal writing and research investigation of claims and legal ethics.</td>
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<tr>
<td>PLGL 31A</td>
<td>Legal Analysis and Writing</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>Corequisite: PLGL 30 or BUSL 30 (may have been taken previously)</td>
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<tr>
<td></td>
<td>Use of a law library for legal research and references, reading and analyzing codes and statutes, and preparation of case briefs and research reports.</td>
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</tr>
<tr>
<td>PLGL 31B</td>
<td>Advanced Legal Analysis and Writing</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>Preparor of research memoranda, trial briefs, appellate briefs and other paralegal documents. Continuation of PLGL 31A, Legal Analysis and Writing.</td>
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</tr>
<tr>
<td>PLGL 33A</td>
<td>Civil Procedure Pretrial</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>Design to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.</td>
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</table>

**Course Descriptions**

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<th>Units</th>
<th>Degree Applicable, CSU</th>
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<tbody>
<tr>
<td>BUSO 26</td>
<td>Oral Communications for Business</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Designed to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.</td>
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</tr>
<tr>
<td>PLGL 33B</td>
<td>Civil Procedure Pretrial</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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</tr>
<tr>
<td></td>
<td>Preparor of research memoranda, trial briefs, appellate briefs and other paralegal documents. Continuation of PLGL 31A, Legal Analysis and Writing.</td>
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</table>

<table>
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<tr>
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<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU</th>
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</thead>
<tbody>
<tr>
<td>PLGL 35A</td>
<td>Law Office Procedures</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: PLGL 30</td>
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<td>Examines procedures utilized by a paralegal in a law office. Includes knowledge of court systems, preparation and filing of legal papers and court documents, and drafting specialized documents in such areas as estate planning, real estate, divorce, unlawful detainer, adoption, corporations, conservatorships and guardianships.</td>
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<tr>
<td>PLGL 35B</td>
<td>Automated Law Office Procedures</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: PLGL 35A</td>
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<td>Use of the personal computer for special purposes in the law office; includes the drafting of pleadings, legal research, document control, preparation of billing, law office and case load management, and tax reports.</td>
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<tr>
<td>PLGL 36</td>
<td>Paralegal Internship</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>75 hours lab</td>
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<td></td>
<td>Advisory: PLGL 37, PLGL 33A and PLGL 35A</td>
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<tr>
<td></td>
<td>Corequisite: PLGL 30B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)</td>
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<td></td>
<td>Designed to provide the student with actual on-the-job experience in the paralegal profession which relates to student's classroom based learning. Placement is not guaranteed but assistance is provided by the paralegal faculty. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PLGL 37</td>
<td>Tort Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Analysis of the law of torts including intentional torts such as assault, battery, false imprisonment, defamation, privacy, trespass and nuisance, negligence, and strict liability. Examination of insurance defense issues.</td>
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<tr>
<td>Course Descriptions</td>
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<tr>
<td><strong>PLGL 38 — Employment and Ethical Issues</strong></td>
<td>2 Units</td>
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<tr>
<td><strong>Degree Applicable</strong></td>
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<tr>
<td>36 hours lecture</td>
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<tr>
<td>Prerequisite: PLGL 33A, and PLGL 35A</td>
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<tr>
<td>Corequisite: PLGL 31B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)</td>
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<tr>
<td>Job search skills including preparation of professional resumes and cover letters. Interviewing techniques, networking, application of these skills in beginning the search for paralegal employment, and paralegal and attorney ethics.</td>
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</table>

| **PLGL 39 — Contract Law** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |

| **PLGL 40 — Landlord-Tenant Law** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Landlord-tenant law and creation of legal documentation to represent the landlord-tenant relationship. Examination of the rights and liabilities of the landlord and the tenant. |

| **PLGL 41 — Property Law** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Examination of the law relating to real and personal property. Analysis of the ownership of real property, easements, covenants, conditions, and licenses; constitutional questions; types of real estate deeds; and land use controls. |

| **PLGL 42 — Family Law** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Laws relating to marriage, dissolution, nullity, and legal separation. Includes topics of community property, child custody, child support, spousal support, and prenuptial/antenuptial agreements. |

| **PLGL 43 — Wills and Trusts** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Legal principles of the laws of wills and trusts, organization and jurisdiction of the California Probate Courts, estate planning and estate taxes. |

| **PLGL 44 — Bankruptcy Law** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Creation, scope, and administrative function of federal bankruptcy proceedings and arrangements. Includes wage earner plans and inolvency proceedings. |

| **PLGL 45 — Creditors’ Rights** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Creation, perfection, and enforcement of security interests in property. Unsecured creditors and their methods of enforcing rights and obtaining judgments. |

| **PLGL 47A — Litigation Procedures** | 3 Units |
| **Degree Applicable** |
| 54 hours lecture |
| Overview of litigation procedures. Description of a trial and trial presentations are emphasized. Preparation of opening statements, direct and cross examinations, and closing statements. Elements of oral argument are examined. Methods of responding to questioning are analyzed. |

| **PLGL 47B — Litigation Practice** | 1.5 Units |
| **Degree Applicable** |
| 27 hours lecture |
| Students will present a case and evaluate the effectiveness of their presentation. Continuous revision of opening arguments, closing arguments, direct examinations, and cross-examinations. |

| **PLGL 48 — Criminal Law and Procedures** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| General principles of criminal law and procedure, elements of crimes against person and property, parties to a crime, defenses to crimes. Analysis of procedural law relating to arrest, search and seizure, rights to counsel and a jury, evidentiary issues, sentencing and appeal. |

| **PLGL 49 — Evidence Law** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Overview of evidence law in civil and criminal cases; principles of relevance and competence of evidence; hearsay and character evidence rules; evidentiary privileges; use and authentication of writings. Use of evidence at trial, burdens of proof and presumptions, constitutional issues. |

| **PLGL 50 — Comparative Law** | 3 Units |
| **Degree Applicable** |
| 54 hours lecture |
| Advisory: Eligibility for ENGL 1A |
| A comparison of the traditions and legal systems of various nations. Specific legal concepts and principles relating to areas of business, substantive law, and procedural law are compared to illustrate and distinguish those systems from the U.S. system. Ethics, language, and management issues are considered with regard to doing business abroad. |

| **BUSR 50 — Real Estate Principles** | 3 Units |
| **Degree Applicable, CSU** |
| 54 hours lecture |
| Introductory real estate law; public control, property valuation, finance and real estate practice. Meets some of the California Real Estate Salesperson and Broker License requirements and meets 30 hours toward Basic Appraisal Procedures 2008 Appraiser Qualifications Board (AQB) requirements for certified residential/certified general appraiser license. Also provides 30 hours toward office of real estate Appraisers (OREA) requirements for state licensing. |

| **BUSR 51 — Legal Aspects of Real Estate** | 3 Units |
| **Degree Applicable** |
| 54 hours lecture |
| Prerequisite: BUSR 50 or employment in the real estate field |
| Real estate contracts, leases, deeds, foreclosures, homesteads, agency, and disclosures. Can be used to meet the additional educational requirements for the salesperson or broker license. |

| **BUSR 52 — Real Estate Practice** | 3 Units |
| **Degree Applicable** |
| 54 hours lecture |
| Corequisite: BUSR 50 (may have been taken previously) or employment in the real estate field |
| Office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. A course in real estate practice must be completed within 18 months of licensure. |

| **BUSR 52D — Real Estate Practice Work Experience** | 3 Units |
| **Degree Applicable** |
| (May be taken four times for credit) |
| 225 hours lab |
| Corequisite: BUSR 50 and not possessing a permanent California real estate license at time of enrollment. Student must be enrolled in seven units minimum including work experience units. |
| Provides a minimum of 180 hours of on-site real estate office and/or field work experience under the supervision of a licensed California real estate professional and a college instructor/coordinator. Designed to satisfy Department of Real Estate licensing requirements serving as an equivalent to BUSR 52. Students who repeat this course will improve their skills through further instruction and practice. |

| **BUSR 53 — Real Estate Finance** | 3 Units |
| **Degree Applicable** |
| 54 hours lecture |
| Prerequisite: BUSR 50 or employment in the real estate field |
| Real estate financing sources, loans underwriting, applications, and appraisals. Can be used to meet the additional education requirement of the salesperson or broker license. |
**BUSR 55 — Real Estate Economics** 3 Units
Degree Applicable

54 hours lecture
Prerequisite: BUSR 50 or employment in the real estate field
Analysis of international, national, and local factors which determine the value of real estate. Required by the DRE for the real estate broker license and may be used as the elective course for the salesperson license.

**BUSR 57 — Income Tax Aspects of Real Estate Investments** 3 Unit
Degree Applicable

54 hours lecture
Current income tax principles governing the acquisition, ownership, operation and disposition of real property investments with special emphasis on tax planning and integration of tax concepts with procedural aspects. May be used as an elective course to satisfy one of the California Department of Real Estate's requirements for the salesperson or broker license.

**BUSR 59 — Real Estate Property Management** 3 Units
Degree Applicable

54 hours lecture
Prerequisite: BUSR 50
Property management for owners and managers of residential and commercial income properties. Meets California real estate license requirements for salesperson and broker.

**BUSR 60 — Real Estate Investment Planning** 3 Units
Not Degree Applicable

54 hours lecture
Prerequisite: BUSR 50 or employment in the real estate field
A comprehensive analysis of various investment strategies, techniques, systems, and theories involving all forms of real estate with particular emphasis on research methods needed for successful investing.

**BUSR 62 — Mortgage Loan Brokering and Lending** 3 Units
Degree Applicable

54 hours lecture
Overview of the technical knowledge of the State and Federal laws that govern the practice of mortgage loan brokerage and lending in the State of California as well as mortgage lending history and process. May be used as an elective for the salesperson or broker license.

**BUSR 76 — Escrow Procedures I** 3 Units
Degree Applicable

54 hours lecture
A case study method of escrow procedures including processing of sale escrows with and without new trust deed financing; learning and using the vocabulary of escrow; drawing of documents; and other processing details pertinent to handling escrows from inception to closing. May be used as an elective for the salesperson or broker license.

**BUSR 77 — Escrow Procedures II** 3 Units
Degree Applicable

54 hours lecture
Prerequisite: BUSR 76
Advanced escrow procedures covering the more unusual and difficult types of escrows and evaluating the possible solutions. Emphasis on practical processing of real estate sale and loan transactions with some personal property sales. Designed to assist those either directly or indirectly connected with the escrow industry.

**BUSR 81 — Appraisal: Principles and Procedures** 3.5 Units
Not Degree Applicable

63 hours lecture
Principles and procedures of appraising real property with emphasis on residential properties. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and by the Department of Real Estate (DRE) for real estate broker license. Provides 60 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Basic Appraisal Principles and Basic Appraisal Procedures modules. May be used as the elective course for the salesperson license.

**BUSR 82 — USPAP** 1 Unit
Not Degree Applicable

18 hours lecture
Emphasizes appraisal standards and professional ethics. Meets the national 15-hour Uniform Standards of Professional Appraisal Practice (USPAP) requirement for initial licensing by the Office of Real Estate Appraisers (OREA).

**BUSR 83 — Residential Appraisal** 3.5 Units
Not Degree Applicable

63 hours lecture
Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Residential Market Analysis and Highest and Best Use, Residential Appraiser Site Valuation and Cost Approach, and Residential Sales Comparison and Income Approaches. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and provides 60 hours toward OREA requirements for appraisal licensing. May be used as the elective course for the salesperson license or the required appraisal course for broker license.

**BUSR 84 — Residential Appraisal: Case Studies** 2.5 Units
Not Degree Applicable

45 hours lecture

**BUSR 85 — USPAP** 1 Unit
Not Degree Applicable

18 hours lecture
Emphasizes appraisal standards and professional ethics. Meets the national 15-hour Uniform Standards of Professional Appraisal Practice (USPAP) requirement for initial licensing by the Office of Real Estate Appraisers (OREA).

**BUSR 86 — Residential Appraisal** 3.5 Units
Not Degree Applicable

63 hours lecture
Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Residential Market Analysis and Highest and Best Use, Residential Appraiser Site Valuation and Cost Approach, and Residential Sales Comparison and Income Approaches. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses and provides 60 hours toward OREA requirements for appraisal licensing. May be used as the elective course for the salesperson license.

**BUSR 87 — Residential Appraisal: Case Studies** 2.5 Units
Not Degree Applicable

45 hours lecture

**BUSU 33 — Advertising and Promotion** 3 Units
Degree Applicable, CSU

54 hours lecture
Characteristics and role of advertising and promotion in business are explored. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy. Students may not receive credit for both BUSU 33 and FASH 63.

**BUSU 35 — Professional Selling** 3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of selling and the role of a salesperson in the marketing process. Includes characteristics and skills necessary for a successful salesperson, techniques for prospecting and/or qualifying buyers, buyer behavior and critical steps in the selling process. Students develop and offer a sales presentation for a selected product, service or concept.

**BUSU 36 — Principles of Marketing** 3 Units
Degree Applicable, CSU

54 hours lecture
Prerequisite: Eligibility for ENGL 68
Organization and function of system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.

**BUSU 50 — Retail Store Management and Merchandising** 3 Units
Degree Applicable, CSU

54 hours lecture
Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service. Students may not receive credit for both FASH 62 and BUSU 50.

**BUSU 79 — Work Experience in Marketing Management** 1 to 4 Units
Degree Applicable

(0 to 45 hours lab
Prerequisite: BUSU 33 or BUSU 35 or BUSU 36 or BUSU 50 and compliance with Work Experience regulations as designated in the College Catalog
Provides marketing students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.
Course Descriptions

BUSS 85 — Special Issues in Marketing 2 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50
Provides marketing majors with a forum to gain knowledge, develop
abilities, problem solve, and implement an actual business marketing
plan. Special emphasis will be placed on the particular project of the
actual business used as the class project. Students who repeat this
course will improve skills through further instruction and practice.

CHMT 1 — Introduction to Chemical Laboratory Technology 3 Unit
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: CHEM 10
A survey of chemical laboratory professional and ethical responsibilities,
aspects of environmental health and safety, safe handling of chemicals,
data collection, data presentation, and strategies for quality
improvement. Group projects and case studies will be used to illustrate
specific aspects of the course. May include field trips.

CHMT 5 — Elementary Principles of Chemical Processing 2 Units
Degree Applicable, CSU
36 hours lecture
Prerequisite: CHEM 50
Fundamental theories of industrial chemical processing. Includes mass
transfer, heat transfer, real-time instrument measurement, water
treatment, materials of construction and corrosion, separation by
solubility, distillation, mixing systems and chemical reactions.

CHMT 8 — Work Experience in Chemical Technology 1 to 2 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 to 150 hours lab
Prerequisite: Compliance with Work Experience regulations as designated
in the College Catalog
Provides Chemistry Technology students with actual on-the-job
experience in an approved work setting which is related to classroom
instruction. A minimum of 75 paid or 60 non-paid clock hours per
semester of supervised work is required for each unit of credit. It is
recommended that the hours per week be equally distributed
throughout the semester. Students who repeat this course will improve
skills through further instruction and practice.

CHEM 10 — Chemistry for Allied Health Majors 4 Units
(CAN CHEM06)
Degree Applicable, CSU, UC
54 hours lecture
72 hours lab
Prerequisite: Eligibility for MATH 71
Principles of inorganic chemistry including measurements, structure,
nomenclature, reactions, radioactivity, energy, properties of matter,
acids/bases and solutions. For Allied Health majors such as nursing,
dental hygiene, radiation technology. Completion does not give
eligibility for CHEM 50.

CHEM 20 — Introductory Organic and Biochemistry 5 Units
(CAN CHEM08)
Degree Applicable, CSU, UC
54 hours lecture
108 hours lab
Prerequisite: CHEM 10 or CHEM 40
Nomenclature, structure, function and reactions of major classes of
organic compounds and of biomolecules, including amino acids, lipids,
carbohydrates, nucleic acids and proteins. Structure and function of
vitamins, coenzymes and enzymes. Metabolic pathways and biochemical
energy.

CHEM 40 — Introduction to General Chemistry 4 Units
(CAN CHEM06)
Degree Applicable, CSU, UC
54 hours lecture
72 hours lab
Prerequisite: Eligibility for MATH 71
Advisory Eligibility for ENGL 1A
Introduction to measurements, structure and properties of matter,
writing/balancing equations, stoichiometry, properties and behavior of
gases, and properties of solutions. For science/ engineering majors
preparing for admission into General Chemistry (CHEM 50.)

CHEM 50 — General Chemistry I 5 Units
(CAN CHEM02)
Degree Applicable, CSU, UC
54 hours lecture
108 hours lab
Prerequisite: CHEM 40 or satisfactory score on Chemistry Placement
Examination and (MATH 71, 71B or 71X or equivalent)
Topics in general chemistry such as scientific method, measurements,
nomenclature, formulas and equations, reaction patterns, stoichiometry,
thermodynamic processes, periodic trends, atomic structure, molecular
bonding and geometry, properties of gases, liquids, solids and solutions.
Emphasis is on critical thinking and mathematical problem-solving
using dimensional analysis. Hands-on laboratory experiments use
computer and calculator-based technologies in data acquisition and
analysis. Introduces techniques of scientific writing. An honors course
designed to provide an enriched experience. Students may not receive
credit for both CHEM 50 and CHEM 50H.

CHEM 50H — General Chemistry I - Honors 5 Units
Degree Applicable, CSU, UC
54 hours lecture
108 hours lab
Prerequisite: Acceptance into the Honors Program. Also (CHEM 40 or
satisfactory score on the Chemistry Placement Exam) and (MATH 71,
71B or 71X or equivalent)
Topics in general chemistry such as scientific method, measurements,
nomenclature, formulas and equations, reaction patterns, stoichiometry,
thermodynamic processes, periodic trends, atomic structure, molecular
bonding and geometry, properties of gases, liquids, solids and solutions.
Emphasis is on critical thinking and mathematical problem-solving
using dimensional analysis. Hands-on laboratory experiments use
computer and calculator-based technologies in data acquisition and
analysis.

CHEM 51 — General Chemistry II 5 Units
(CAN CHEM04)
Degree Applicable, CSU, UC
CAN CHEM SEQ A
54 hours lecture
108 hours lab
Prerequisite: CHEM 50 or CHEM 50H
The application of the laws, theories and principles presented in CHEM
50 to a variety of chemical systems. Topics include kinetics, equilibrium,
thermodynamics, acid-base and oxidation-reduction reactions, transition
metals, electrochemistry and nuclear chemistry. Emphasis is on critical
thinking and mathematical problem-solving. Laboratory experiments
use computer and calculator-based technologies in data acquisition and
analysis.

CHEM 59C — Quantitative Chemical Analysis 4 Units
Degree Applicable
54 hours lecture
108 hours lab
Prerequisite: CHEM 50H
Techniques of gravimetric, volumetric and instrumental analysis.
Precision in measurements, computations, accurate record keeping and
report writing. General procedures, skills, methods, practices, philosophies, terminologies and ethics found in industrial, governmental
and academic laboratories.

CHEM 75 — Instrumental Analysis 5 Units
Degree Applicable
54 hours lecture
108 hours lab
Prerequisite: CHEM 51
Introduction to a variety of instruments used in chemical industries.
Includes theory, hands-on experience and basic maintenance of
chemical instrumentation.
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>CHEM 80</td>
<td>Organic Chemistry</td>
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<td>CHEM 81</td>
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<tr>
<td>CHEM 99</td>
<td>Special Projects in Chemistry</td>
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In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this class. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

**CHILD DEVELOPMENT**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>CHLD 1</td>
<td>Child, Family, School and Community</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>CHLD 5</td>
<td>Principles/Practices in Child Development Programs</td>
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<td>Degree Applicable, CSU</td>
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Overview of early child development programs: their histories, philosophies and emphasis; methods of guidance and discipline, licensing and regulations for state, federal and private programs. Reviews philosophies of educating young children and learning, while examining developmentally appropriate practices, including the influence of culture and inclusive environments on the developing child. Explores career paths, professional growth, and ethics. Student assignments involve ten hours outside of class time observation and participation in children's programs.

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<tr>
<th>Course Code</th>
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</thead>
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<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
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Overview of curriculum design for early childhood programs, including planning, implementation and evaluation of curriculum, and observing the interaction of play and development of the whole child. Organization of materials, curriculum areas, and resources are explored.

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<tbody>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development</td>
<td>3</td>
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Developmental approach to the study of the child identifying forces affecting growth processes from conception through adulthood. Meets requirements for Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. TB test required.

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<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>CSU, UC</td>
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</table>

Developmental approach to the study of the child identifying forces affecting growth processes from conception through adulthood. Meets requirements for Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both CHLD 10 and CHLD 10H. TB test required.

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<tr>
<th>Course Code</th>
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<th>Units</th>
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<td>CHLD 50</td>
<td>Multicultural Education: Anti-Bias Perspective</td>
<td>3</td>
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Current approaches to diversity in the early childhood setting. Students will create culturally relevant and inclusive teaching environments while fostering the goals of anti-bias curriculum. An emphasis is placed on addressing issues of bias that children and families experience on a daily basis in our society and recognizing effective and respectful handling of bias.

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<tr>
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<tr>
<td>CHLD 51</td>
<td>Early Literacy in Child Development</td>
<td>3</td>
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<td>Degree Applicable</td>
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</table>

Examines the developmental continuum of literacy from birth through early childhood. Considerations of cultural and linguistic diversity are applied to the study of how children become competent in all areas of language. An appreciation of the importance of interaction and cooperation between home and school underlies the exploration of language and literacy acquisition. Issues of early literacy in public policy are reviewed. TB test/observations required.

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<tr>
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<tr>
<td>CHLD 61</td>
<td>Language Arts and Art Media for Young Children</td>
<td>3</td>
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<td>Degree Applicable</td>
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</tbody>
</table>

Language and literacy development of young children (0 to 6 years) is explored through developmentally appropriate activities, language study, games and play. Describes the role of creative art in the curriculum in relationship to the child's development and creativity. Emphasizes ways to develop an inclusive culturally and linguistically appropriate learning environment which encourages the child's use of senses and builds an awareness of aesthetic materials.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 62</td>
<td>Music and Motor Development for Young Children</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>Degree Applicable</td>
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</tbody>
</table>

Exploration of the role of music and movement in a child's development. Emphasizes students development in practical activities including making music, movement, singing and musical instruments.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 63</td>
<td>Creative Sciences and Math for Young Children</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>Degree Applicable</td>
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</tbody>
</table>

Exploration of children's thinking processes and problem solving abilities as they become aware of the physical world. Discussion, planning, and creating basic science and math experiences. Emphasizes creative aspects of math and science.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 64</td>
<td>Health, Safety and Nutrition of Young Children</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>Degree Applicable</td>
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</tbody>
</table>

Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the adult role in preventative health care, legal and ethical reporting of abuse, assisting families to access community services while supporting family practices from diverse populations. Includes universal health precautions, evaluate center/agency policies with licensing requirements, and food program service with guidelines for food handling.

Section 10
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 66</td>
<td>Early Childhood Development Observation</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 67</td>
<td>Early Childhood Development Participation</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 68</td>
<td>Children With Special Needs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 69</td>
<td>Early Childhood Development Field Work Seminar</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 70</td>
<td>Management/Marketing/Personal for ECD Programs</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 71</td>
<td>Teacher, Parent, and Child Relationships</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 72</td>
<td>Infant/Toddler Care and Development</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 73</td>
<td>Program Planning for the School Age Child</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 74</td>
<td>Advocacy in Child Development</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 75</td>
<td>Current Curriculum Models in Child Development</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 76</td>
<td>Current Issues in Child Development</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 77</td>
<td>Program Planning for the School Age Child</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 78</td>
<td>Work Seminar</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 79</td>
<td>Observation Laboratory</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 80</td>
<td>Advocacy in Child Development</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 81</td>
<td>Early Childhood Development Field Work Seminar</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CHLD 82</td>
<td>Advocacy in Child Development</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
</tr>
</tbody>
</table>

### CHLD 66 — Early Childhood Development Observation
- 54 hours lecture
- Prerequisite: CHLD 1 and CHLD 5
- Corequisite: CHLD 66L (may have been taken previously)
- Emphasizes the importance of observation of children's behavior and its significance in understanding child development principles. Focus will be on the interaction of the preschool child with the environment and with significant people.

### CHLD 67 — Early Childhood Development Participation
- 36 hours lecture
- Prerequisite: CHLD 6 and CHLD 66
- Corequisite: CHLD 67L
- Application of knowledge of child development principles in the preschool children's classroom setting and recognition of skills necessary for the teacher of young children. Evaluation of participation experiences.

### CHLD 68 — Children With Special Needs
- 54 hours lecture
- Prerequisite: CHLD 10 or CHLD 10H
- Characteristics of the needs of typically and atypically developing children in areas of cognitive, physical, neurological, emotional and social development. Identifies legal requirements, current issues, community resources and the IEP/IFSP process. Emphasizes modifications, adaptations, accommodations and teaching techniques involved in the inclusive classroom. Required observations in community agencies.

### CHLD 69 — Early Childhood Development Field Work Seminar
- 36 hours lecture
- Prerequisite: CHLD 67, CHLD 67L
- Corequisite: CHLD 91
- Selected topics pertinent to problems of students placed in community sites. Topics include philosophical orientation, curriculum, parent involvement, staff relations, professionalism and professional growth, and will involve study, discussion and research.

### CHLD 70 — Management/Marketing/Personnel for ECD Programs
- 54 hours lecture
- Prerequisite: CHLD 71A
- Strategic planning for ECD programs, including financial administration, budgeting and marketing. Investigates basic financial/data management programs; examines personnel management practices designed to facilitate director/administrator/staff relationships; and explores staff development strategies and techniques employed in creative teaching methods.

### CHLD 71 — Teacher, Parent, and Child Relationships
- 54 hours lecture
- Comprehensive examination of child/parent/teacher relationships to better understand family dynamics and to recognize influences in the child development setting. Theories of sequential changes in parent/child/school relations within the large social context. Strategies dealing with issues that emerge when working with children and their families in the school setting.

### CHLD 72 — Infant/Toddler Care and Development
- 54 hours lecture
- Prerequisite: CHLD 10 or CHLD 10H
- Caregivers and parents learn developmentally appropriate practices for infants and toddlers applicable to families and group care, environmental planning, and developing relationships between diverse families and staff. Student assignments involve up to ten hours of observations and participation with infants and toddlers outside of class time.
### Child Development Settings

**CHLD 84 — Guidance and Discipline in Child Development Settings**
1 Unit
Degree Applicable, CSU
18 hours lecture
Advisory: CHLD 5
Problem solving approach to guidance and discipline of children in child development settings. Investigation of appropriate developmental and attitudinal aspects of producing a respectful environment between children, caregivers and parents.

**CHLD 85 — Infants At Risk**
3 Units
Degree Applicable
54 hours lecture
Prerequisite: CHLD 64 and CHLD 73
Advisory: CHLD 5
Principles and methods of working with infants and toddlers who are disabled or at-risk in the early childhood setting. Emphasis is placed on issues affecting normal development prevention, intervention, referrals and transition to school. Course will prepare teachers of young children for appropriate planning in these settings.

**CHLD 91 — Early Childhood Development Field Work**
1 Unit
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
75 hours lab
Prerequisite: CHLD 67 and CHLD 67L
Corequisite: CHLD 69
A teacher-supervised work experience course which permits students to apply early childhood development principles in community preschools. CHLD 69 Seminar will supplement student’s progress. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester.

**CHLD 92 — Family Child Care**
3 Units
Degree Applicable
54 hours lecture
Advisory: CHLD 1, 5, 6 and 10
An overview of home-based early education programs which includes standards of quality for the field of family child care in relationships, environments, activities, developmental learning goals, safety/health, professional and business practices.

### Chinese

**CHIN 2 — Continuing Elementary Chinese**
4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: CHIN 1 or equivalent
Further develops conversational, reading, and writing skills in Mandarin Chinese with special emphasis on verbs, grammar, and extension of vocabulary.

**CHIN 3 — Intermediate Chinese**
4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: CHIN 2 or equivalent
Further development of Mandarin Chinese language skills and their use as tools in exploring Chinese civilization. Further study and review of grammar, exercises in word building, derivation, and the extension of the active and recognition vocabularies.

**CHIN 4 — Continuing Intermediate Chinese**
4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: CHIN 3 or equivalent
Enables students to use Mandarin in traveling, telling stories, describing experiences and discussing Chinese literary works, festivals and food. Students learn advanced grammar such as the directional and potential complements, repetition of adjectives, the focus construction, the be and bei structures.

### Computer Applications

**COMP 1A — Computer Keyboarding**
2 Units
Degree Applicable, CSU
27 hours lecture
27 hours lab
Advisory: COMP 1A or BUSO 1A, or ability to type 20 warm with test verification at first class meeting
Develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit and includes keyboarding of letters, tables, and manuscripts.

**COMP 1B — Computer Keyboarding**
2 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: COMP 1 or COMP 1B or BUSO 1 or BUSO 1B, or one year of high school keyboarding
Develops computer keyboarding speed and accuracy with a proficiency standard upon completion of 55-55 gross words a minute with a predetermined error limit. Using word processing software, extensive instruction given for formatting of letters, memos, reports, tables and other related business documents.

**COMP 10 — Operating the Macintosh Computer**
1.5 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
27 hours lecture
Basic skills and in-depth practice operating the Apple Macintosh computer. Includes introduction to the operating system, paint, draw, word-processing, database, spreadsheet, and multi-media applications.

**COMP 11 — Internet Research for Business**
2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
27 hours lecture
27 hours lab
Advisory: COMP 10 or CSIS 13
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (File Transfer Protocol) and mailing lists.

**COMP 12 — Office Computer Applications**
4 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
In-depth study of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMP 13</strong> — Using Web Page Software</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Advisory: COMP 10 or COMP 12 or CSB 13 or CSB 15</td>
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</tbody>
</table>

Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.

<table>
<thead>
<tr>
<th>COMP 18 — Data Entry</th>
<th>3</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>Advisory: Ability to type 25 wpm with test verification at first class meeting</td>
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</table>

Data entry using a microcomputer. Includes intensive skill building on the ten-key pad and development of keyboarding skills for entering formatted and non-formatted text, both alphabetic and numeric, in a variety of business applications.

<table>
<thead>
<tr>
<th>COMP 20 — Word for the Business Professional</th>
<th>4</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>54 hours lab</td>
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</tr>
<tr>
<td>Advisory: COMP 10 or CSB 13 and ability to type 25 wpm with test verification at first class meeting</td>
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</table>

Extensive hands-on instruction using Microsoft Word and its editing, formatting, and language tools to create, revise and format various business and report documents. Also create flyers, newsletters, and other publication documents using advanced formatting techniques and tools.

<table>
<thead>
<tr>
<th>COMP 28 — Office Management Skills</th>
<th>3</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>Advisory: COMP 1 or COMP 1A or BUSO 1 or BUSO 1A and BUSO 5</td>
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</table>

Training and skill building in filing systems and procedures, proofreading, telephone techniques, faxing, emailing, and electronic calendaring of events, appointments and meetings.

<table>
<thead>
<tr>
<th>COMP 50 — Desktop Presentations Using PowerPoint</th>
<th>4</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: COMP 10 or COMP 12 or CSB 13 or CSB 15</td>
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</tbody>
</table>

Use PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies.

<table>
<thead>
<tr>
<th>COMP 60 — Business Publications Using Desktop Publishing Software</th>
<th>4</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Using desktop publishing software, integrate text and graphics to design, edit, and produce high-quality business publications.</td>
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</table>

<table>
<thead>
<tr>
<th>COMP 68 — Transcription Techniques</th>
<th>3</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Using transcriber software to transcribe dictation and produce professional transcribed materials.</td>
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<table>
<thead>
<tr>
<th>COMP 150 — Basic PowerPoint</th>
<th>1</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>18 hours lecture</td>
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<tr>
<td>Overview and basic instruction using one of the most popular presentation software packages. Recommended for all students who need to know how to create presentations. Not recommended for Office Technology majors.</td>
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</tbody>
</table>

### COMPUTER GRAPHICS

<table>
<thead>
<tr>
<th>GRAP 1 — Computer Graphics Lab</th>
<th>1</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken four times for credit)</td>
<td></td>
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<tr>
<td>54 hours lab</td>
<td></td>
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</tr>
<tr>
<td>Advisory: COMP 10 or equivalent computer experience</td>
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</tbody>
</table>

Provides computer laboratory experience to supplement the regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

<table>
<thead>
<tr>
<th>GRAP 10 — Photo Editing with Photoshop</th>
<th>3</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Advisory: COMP 10 or PHOT 4</td>
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</table>

Basic techniques to adjust and modify photos using Photoshop software tools. Includes digital color theory and photo quality standards; practice photo scan reproduction, resolution and scaling, masking, layer editing and effects, filters, color correction and file formats; output for editing, restoring, and retouching.

<table>
<thead>
<tr>
<th>GRAP 12 — Advanced Photo Editing with Photoshop</th>
<th>3</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 hours lecture</td>
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<tr>
<td>54 hours lab</td>
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<tr>
<td>Prerequisite: GRAP 10</td>
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</table>

Advanced training in Photoshop editing, color, exposure, sharpening, and contrast enhancement, layer and object masking, vector tools, image compositing, and the uses of blended modes; design of realistic and imaginary photo illustrations using 8- and 16-bit high resolution digital images.

<table>
<thead>
<tr>
<th>GRAP 14 — Digital Color Management</th>
<th>3</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 hours lecture</td>
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<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: GRAP 10</td>
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</tbody>
</table>

Advanced techniques of digital photo color management systems and workflow. System color architectures, monitors, printers, profilers, and other digital devices; spectrophotometer techniques; scripting Photoshop actions, using “digital raw” meta data to organize photo storage; advanced special editing techniques for 16-bit raw color and grayscale images.

<table>
<thead>
<tr>
<th>GRAP 16 — Digital Image Design with Illustrator and Freehand</th>
<th>3</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: GRAP 10</td>
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</tbody>
</table>

Provides computer laboratory experience to supplement the regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

<table>
<thead>
<tr>
<th>GRAP 18 — Advanced Image Design - 3D Modeling Techniques</th>
<th>3</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
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<td></td>
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<tr>
<td>Prerequisite: GRAP 16</td>
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</tbody>
</table>

Advanced digital image drawing emphasizing creation of photorealistic 3D models and environments. Principles of perspective, coordinate space, photographic lighting, object animation, photo and video texture mapping, and common techniques for rendering still or animated QuickTime image movies for digital compositing and post-production.
### Course Descriptions

#### COMPUTER INFORMATION SYSTEMS: AUXILIARY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 10</td>
<td>Principles of digital storytelling, combining still photos, graphics images, type, video, and audio content output to digital CD or DVD media, video, or Web pages. Commonly used tools and techniques of Apple's iPhoto, iMovie, iDVD, iTunes, GarageBand, and QuickTime Pro multimedia software, Mac OS X features, and other multimedia software and hardware.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAP 24</td>
<td>Work Experience in Computer Graphics</td>
<td>2 Units</td>
<td>Provides Computer Graphics students with actual on-the-job experience in an approved work setting which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will increase skill proficiencies in Computer Graphics Systems.</td>
</tr>
<tr>
<td>GRAP 28</td>
<td>Digital Portfolio</td>
<td>3 Units</td>
<td>Provides an understanding of computer information systems: computer hardware, software, data communications, computer ethics, computer security, systems analysis and design, Internet, problem solving and programming using multiple computer platforms.</td>
</tr>
<tr>
<td>GRAP 99</td>
<td>Special Projects in Computer Graphics</td>
<td>2 Units</td>
<td>Offers hands-on instruction on a Windows-based PC.</td>
</tr>
</tbody>
</table>

#### COMPUTER INFORMATION SYSTEMS: DATABASE

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</td>
<td>4 Units</td>
<td>Introduction of Windows-based operating system and applications. Simple business examples using up-to-date browser, word processing, spreadsheet, database management and presentation software; and integration of software applications. Hands-on instruction on Windows-based computers.</td>
</tr>
<tr>
<td>CISB 21</td>
<td>Microsoft Excel</td>
<td>4 Units</td>
<td>Provides an understanding of Microsoft Access and similar Database Management Software (DBMS). Basic database design, creation of tables, queries, forms, reports, data access pages, and macros. Creation of custom graphical user interface using Switchboard Manager and Visual Basic (VB) code. Extensive hands-on experience on a Windows-based PC.</td>
</tr>
</tbody>
</table>

#### COMPUTER INFORMATION SYSTEMS: BEGINNING

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISD 11</td>
<td>Database Management - Microsoft Access</td>
<td>4 Units</td>
<td>Provides CIS students with actual on-the-job experience in an approved work setting which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>CISD 14</td>
<td>Advanced Database Management - Microsoft Access</td>
<td>4 Units</td>
<td>Provides an understanding of Microsoft Access and similar Database Management Software (DBMS). Basic database design, creation of tables, queries, forms, reports, data access pages, and macros. Creation of custom graphical user interface using Switchboard Manager and Visual Basic (VB) code. Extensive hands-on experience on a Windows-based PC.</td>
</tr>
<tr>
<td>CISD 21</td>
<td>SQL Server</td>
<td>4 Units</td>
<td>Provides an understanding of Microsoft Access and similar Database Management Software (DBMS). Basic database design, creation of tables, queries, forms, reports, data access pages, and macros. Creation of custom graphical user interface using Switchboard Manager and Visual Basic (VB) code. Extensive hands-on experience on a Windows-based PC.</td>
</tr>
</tbody>
</table>

#### COMPUTER INFORMATION SYSTEMS: BASIC

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISB 11</td>
<td>Computer Information Systems</td>
<td>3.5 Units</td>
<td>Provides an understanding of computer information systems: computer hardware, software, data communications, computer ethics, computer security, systems analysis and design, Internet, problem solving and programming using multiple computer platforms.</td>
</tr>
<tr>
<td>CISB 12</td>
<td>Advanced Microsoft Access Programming</td>
<td>4 Units</td>
<td>Advanced Microsoft Access programming techniques using Visual Basic for Applications (VBA) language; event-driven programming; Access Object Model, Data Access Objects (DAO) model, ActiveX Data Objects (ADO) model; VBA structures, arrays, error handling, multi-user applications, transaction processing, client-server; security issues. Extensive hands-on experience on a Windows-based PC.</td>
</tr>
<tr>
<td>CISB 13</td>
<td>Microsoft Windows</td>
<td>2 Units</td>
<td>Provides an understanding of computer information systems: computer hardware, software, data communications, computer ethics, computer security, systems analysis and design, Internet, problem solving and programming using multiple computer platforms.</td>
</tr>
</tbody>
</table>

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*GRAP 20 — Applying Photos and Images in Multimedia 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Advisory: GRAP 10
Principles of digital storytelling, combining still photos, graphics images, type, video, and audio content output to digital CD or DVD media, video, or Web pages. Commonly used tools and techniques of Apple’s iPhoto, iMovie, iDVD, iTunes, GarageBand, and QuickTime Pro multimedia software, Mac OS X features, and other multimedia software and hardware.*

*GRAP 24 — Work Experience in Computer Graphics 2 Units
(May be taken for option of letter grade or Pass/No Pass)
150 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides an understanding of Microsoft Access and similar Database Management Software (DBMS). Basic database design, creation of tables, queries, forms, reports, data access pages, and macros. Creation of custom graphical user interface using Switchboard Manager and Visual Basic (VB) code. Extensive hands-on experience on a Windows-based PC.*

*GRAP 28 — Digital Portfolio 3 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: GRAP 12 and GRAP 20
Preparation of a personal computer graphics portfolio containing key samples of work for presentation or career evaluation. The portfolio displays the learner’s skills mastery, knowledge, and capacities for communicating, synthesis, and problem solving.*

*GRAP 99 — Special Projects in Computer Graphics 2 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.*
### Course Descriptions

**CISD 31 — Database Management - Oracle** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISD 11**

Database management system (DBMS) functions, concepts, and terms. PL/SQL is used to code, test, and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL.

**CISD 32 — Oracle Forms and Reports** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISD 31**

Design, creation and implementation of interactive single forms with multiple canvases, multiple forms and reports using PL/SQL triggers, the Object Navigator, and Form and Report Builders. Business reports and interactive forms are created using single and multiple tables.

**CISD 40 — Database Design** 3 Units

- **54 hours lecture**
- **Advisory: CISD 11**

Database design principles. Understanding database needs and functions, creating data models, entity-relationship (E-R) and Unified Modeling Language (UML) diagrams, using normalization rules and principles to create properly-designed databases, learning basic database administrator objectives and tasks, and understanding the role of data warehousing and data mining.

### COMPUTER INFORMATION SYSTEMS: MANAGEMENT

**CISM 11 — Systems Analysis and Design** 3.5 Units

- **54 hours lecture**
- **27 hours lab**
- **Advisory: CISP 11 or CISP 21**

Develops basic understanding of information systems, general system solutions and the discipline of systems analysis in relation to the information system life cycle. Develops skills in applying the tools, techniques, and concepts of systems analysis to information systems development.

**CISM 14 — Advanced Telecommunications** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISM 11, CISM 11, CISM 41**

Concepts of advanced telecommunications and network analysis. Topics including: review of networking and telecommunications protocols; advanced TCP/IP subnet and OSI Model applications; use of protocol analysis tool to capture data frame and troubleshoot advanced network problems through the decode analysis of the captured data frame; design and analysis of LAN, WAN, and Wireless networks in various environments and appraisal of network security, vulnerability and intrusion detection.

**CISM 24 — Window Server Network and Security Administration** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISP 15 or CISP 11 or CISP 21**

Active directory security and policy management, server/client installation, DHCP (Dynamic Host Configuration Protocol), DNS (Domain Name Service), file system security, logon script, network printing, web and terminal server, NAT, IPSec and secure VPN.

### COMPUTER INFORMATION SYSTEMS: NETWORKING

**CISN 11 — Telecommunications/Networking** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISP 11 or CISP 15**

CISNA core. Prepare for Cisco CCNA 1st year certification. Covers fundamental concepts and design in telecommunications/networking including: networking standards, TCP/IP, OSI, network protocols, transmission media, hardware architecture, local area network, wide area network, remote connectivity, Network operating system (Microsoft Windows, Novell NetWare, and UNIX), troubleshooting, maintaining/upgrading network, network security, vulnerability, and intrusion detection.

**CISN 21 — Windows Operating System** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISP 11 or CISP 15 or COMP 12**

Employs a Windows operating system to manage disks, files and applications. Creating and editing documents with Wordpad and Paint applications, analyze and debug Windows operating environment problems, secure a Windows environment, conduct research on the Internet.

**CISN 41 — Novell/SUSE Linux Enterprise** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISN 11 or CISN 24 or CISN 34 or CISN 41**

Concepts and skills in planning and installing Linux Operating System and its security components. In-depth study of concepts TCP/IP, IP addressing, network protocols and servers, gateways, routers, bridges and applications. Creating Linux intranets and connecting to Internet.

**CISN 51 — Cisco CCNA Networking and Routing** 4 Units

- **54 hours lecture**
- **54 hours lab**
- **Advisory: CISN 11 or CISN 24 or CISN 34 or CISN 41**

CNASAC (Computer Network Administration and Security Management) AS degree core course. Prepare for Cisco CCNA certification. Cover VLAN/WAN (Local/Wide Area Network) fundamentals, advanced IP subnet, TCP/IP, IP, EGP, and network design. Configure Cisco IOS, router, switch, VLAN, access list, PPP, frame relay, HDLC, and routing protocols (Static Route, RIP, IGIP, EIGRP and OSPF).

### COMPUTER INFORMATION SYSTEMS: PROGRAMMING

**CISP 10 — Principles of Object-Oriented Design** 2 Units

- **27 hours lecture**
- **27 hours lab**
- **Advisory: CISP 11 or CISP 21 or CISP 31 or CISP 41**

Object-oriented design, patterns, and use of UML in different programming languages that will enable students to build large packages and business applications.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(CAN CSCI06)</td>
<td>54</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: CISP 11</td>
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<td></td>
<td>Programming using Visual Basic. Designing, coding, testing, implementing object-oriented multiple tier programs; program design using Unified Modeling Language using data adapters, object linking and embedding (OLE) objects and dynamic link libraries (DLLs); incorporating XML, Web forms, and Web services; creating and updating sequential and random files; validating input data; trapping errors; designing, displaying, searching, and updating database tables; creating record sets using SQL and database reports using Crystal Reports, producing business graphics; using distributing applications; creating components, collections, and help files.</td>
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<tr>
<td>CISP 21</td>
<td>Programming in Java</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Advisory: CISP 11</td>
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<td></td>
<td>Programming using Java. Design and develop object-oriented programs and Web-based applets; documentation and debugging techniques; user-interface, objects, properties, methods, and events; elementary control structures, lists, arrays, streams and serialization. Provides hands-on experience.</td>
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<tr>
<td>CISP 24</td>
<td>Advanced Java Programming</td>
<td>4</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td>Advisory: CISP 21</td>
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<td></td>
<td>Advanced object-oriented programming concepts and techniques in Java. Course is designed to teach serialization, multithreading, advanced Swing components, networking, server-side technology (servlets, RMI), J2EE, Java Beans, Security (PKI).</td>
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<tr>
<td>CISP 31</td>
<td>Programming in C++</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td>Advisory: CISP 11</td>
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<td></td>
<td>Object-oriented programming using C++ as the programming language. Object oriented design, documentation, and debugging techniques. Elementary control structures, classes, overload operators and functions, single and multiple inheritance.</td>
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<tr>
<td>CISP 34</td>
<td>Advanced C++ Programming</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Advisory: CISP 31</td>
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<tr>
<td>CISP 41</td>
<td>Programming in C#</td>
<td>4</td>
<td>Degree Applicable</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Advisory: CISP 11</td>
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<td></td>
<td>Plan, develop and debug C# applications using Windows Forms and Web Forms. Course covers loops, if statements, switch blocks, database connections, multiple forms, object-oriented programming concepts. Course taught in hands-on environment and requires projects implementing each concept.</td>
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<tr>
<td>CISP 44</td>
<td>Advanced Programming in C#</td>
<td>4</td>
<td>Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Prerequisite: CISP 41 or industry experience in C#</td>
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<tr>
<td></td>
<td>Advanced programming concepts using C#. Designing, coding, testing, and implementing object-oriented multi-tier applications; displaying, searching, and updating SQL/Client databases using Data Readers and Data Adapters with both Windows Forms and Web Forms; creating user controls, Web Services, and container classes; creating HTML help files, deploying applications, and developing mobile applications.</td>
<td></td>
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<tr>
<td>CISP 51</td>
<td>Principles of Object-Oriented Design</td>
<td>2</td>
<td>Degree Applicable</td>
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<td></td>
<td>27 hours lecture</td>
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<td></td>
<td>27 hours lab</td>
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<td>Advisory: CISP 11</td>
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<td></td>
<td>Provides instruction in object-oriented design and patterns, vital concepts for object-oriented programming language. Includes object-oriented design, patterns and UML within programming that will enable students to build large packages and business applications.</td>
<td></td>
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</tr>
<tr>
<td>CISS 11</td>
<td>Practical Computer Security</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>27 hours lecture</td>
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<tr>
<td></td>
<td>27 hours lab</td>
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<tr>
<td></td>
<td>Advisory: CISP 11</td>
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<td></td>
<td>Introductory course in computer security. Provides awareness for all computer users to protect user accounts and computer systems from attacks. Hands-on projects illustrate security software and hardware configuration.</td>
<td></td>
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<tr>
<td>CISS 13</td>
<td>Principles of Information Systems Security</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td>Advisory: CISP 11</td>
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<td>Introductory course in information systems security covering the ten domains needed for the Certified Information Systems Security Professional (CISSP).</td>
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<tr>
<td>CISS 15</td>
<td>Operating Systems Security</td>
<td>4</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: CISP 11</td>
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<td>Advanced aspects of operating systems security: from how attackers operate to how viruses strike. Covers strengthening operating systems and repelling attacks. Fundamental knowledge of a full range of security concepts and techniques and application to different operating systems (Windows, Unix etc.).</td>
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</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

CISW 21 — Secure Web Programming with ASP.NET 4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: CISW 15 or CISW 11
Acquire secure programming skills for designing user interfaces, processing user input, and accessing Web servers and databases. Use secure coding techniques with Web programming, scripting and markup languages like HTML, Dynamic HTML, CSS, XML, Javascript, AJAX, ASP.NET, and VB.NET.

CISW 24 — Secure Server Side Web Programming 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: CISW 21
Advanced Web programming such as creating Web user interfaces like interactive GUI (Common Gateway Interface), programming databases, managing files, extracting information, report formatting, and accessing Web servers by using a Web scripting or programming language like Perl.

CISW 31 — Secure Web Servers 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: CISW 31 or CISW 21
Plan, install and manage secure Web servers like Apache or IIS using server side programming language like PHP to access, manage and secure databases. Course topics include Web server security using firewalls, authentication, and SSL, database installation and configuration, running and securing practical e-commerce sites.

CISW 41 — XML Secure Programming 3 Units
Degree Applicable
54 hours lecture
Advisory: CISW 21
Principles, components and benefits of the Extensible Markup Language (XML), including advanced concepts of XPointers, XLink, and XSLT. Apply XML secure programming using DOM and SAX and standards such as Canonicalization, Signatures and Encryption.

CISW 49 — Service Oriented Architecture Concepts and Practice 3 Units
Degree Applicable
54 hours lecture
Prerequisite: CISW 41
Concepts and design principles of Service Oriented Architecture (SOA) and best practices on how to integrate SOA; XML technologies like DTD, XSD, XSLT, XQuery and XPath; and Web Services technologies like WSDL, SOAP, and UDDI. Best practices on integrating SML and Web Services into applications and databases and enterprise level systems.

CSCI 110 — Fundamentals of Computer Science 3.5 Units
Degree Applicable, CSU, UC
54 hours lecture
27 hours lab
Prerequisite: MATH 71 or MATH 71B or equivalent
Advisory: Eligibility for ENGL 1A
Basic concepts of computer hardware and software. General computer organization and information representation. Binary and hexadecimal number systems. Algorithm design and problem-solving techniques. Introduction to programming using a high level language (C, C++ or Java.)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 150L</td>
<td>Assembly Language Laboratory</td>
<td>1</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>(CAN CSCI10)</td>
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<td>CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td>Advisory: CSCI 150</td>
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<td></td>
<td>CSCI 140; language experience programming general</td>
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<tr>
<td></td>
<td>and scientific algorithms and data structures in</td>
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<td></td>
<td>C++ or Java strongly recommended</td>
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<td></td>
<td>Complements the lecture material in CSCI 150.</td>
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<td></td>
<td>Development/debugging</td>
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<td>Corequisite: CSCI 220</td>
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<td>An independent study program designed to</td>
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<tr>
<td></td>
<td>complement the lecture material presented in</td>
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<tr>
<td></td>
<td>CSCI 220, Data Structures. Hands-on computer</td>
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<td>work will include problem solving in</td>
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<td></td>
<td>linear data structures, strings, and trees.</td>
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<tr>
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<td>CSCI 230 — Data Structures II</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td></td>
<td>(CAN CSCI22)</td>
<td></td>
<td>CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Corequisite: CSCI 220</td>
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<td>Basic searching/sorting algorithms, hashing,</td>
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<tr>
<td></td>
<td>graphs, memory/disk management, B-trees,</td>
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<td></td>
<td>advanced tree structures and analysis.</td>
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<tr>
<td></td>
<td>CSCI 230L — Data Structures II Laboratory</td>
<td>1</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>(CAN CSCI22)</td>
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<td>CSU, UC</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Corequisite: CSCI 220</td>
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<td></td>
<td>An independent study program designed to</td>
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<td></td>
<td>complement the lecture material presented in</td>
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<td></td>
<td>CSCI 230, Data Structures II. Hands-on computer</td>
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<td>work will include problem solving in</td>
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<td></td>
<td>linear data structures, strings, and trees.</td>
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<tr>
<td>CSCI 190</td>
<td>Discrete Mathematics Applied to Computer Science</td>
<td>4</td>
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<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: MATH 71 or equivalent</td>
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<tr>
<td></td>
<td>Introduction to the UNIX operating system,</td>
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<td></td>
<td>system administration and networking. Topics</td>
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<td></td>
<td>include process synchronization and communication</td>
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<td></td>
<td>mechanisms, process management, scheduling and</td>
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<td>protection, memory organization and management,</td>
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<td>virtual memory, I/O devices management, file</td>
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<td>systems, networking, system administration for</td>
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<td>UNIX.</td>
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<td>CSCI 210</td>
<td>Applied Logic for Computers</td>
<td>3</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: CSCI 110</td>
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<td></td>
<td>Provides students with the mathematical background</td>
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<td></td>
<td>necessary in Computer Science: set theory,</td>
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<td>logic, modular arithmetic, combinatorics, finite</td>
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<td>probability and graphs. Topics include</td>
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<td>propositional and predicate calculus,</td>
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<td>recursion, binary search trees and counting</td>
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<td>techniques.</td>
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<tr>
<td>CSCI 220</td>
<td>Data Structures I</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: CSCI 140 or CSCI 145</td>
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<td>CSCI 220L — Data Structures I Laboratory</td>
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<td>CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Advisory: CNET 50 taken prior</td>
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<tr>
<td></td>
<td>Advanced microcomputer servicing. Includes:</td>
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<td>isolating, identifying, and repairing specific</td>
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<td>problems in the computer environment at the</td>
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<td></td>
<td>hardware level. Prepares students for the A+</td>
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<td>Certification Exam.</td>
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<td>CNET 54</td>
<td>PC Troubleshooting</td>
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<td>54 hours lecture</td>
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<td>Advisory: CNET 50 taken prior</td>
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<tr>
<td>CNET 60</td>
<td>A+ Certification Preparation</td>
<td>3</td>
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<td>54 hours lecture</td>
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<td>Advisory: CNET 54 taken prior</td>
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<tr>
<td>CNET 62</td>
<td>Network+ Certification Preparation</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(CAN CSCI22) Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Advisory: CNET 56</td>
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<tr>
<td>CNET 64</td>
<td>Server + Certification Preparation</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(CAN CSCI22) Degree Applicable, CSU, UC</td>
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<td>36 hours lecture</td>
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<td>Advisory: CNET 56</td>
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**COMPUTER AND NETWORKING TECH**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Comments</th>
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<tr>
<td>CNET 50</td>
<td>PC Servicing</td>
<td>4</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Advisory: ELEC 50 taken prior or concurrently</td>
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<td></td>
<td>PC and peripheral servicing techniques,</td>
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<td>preventative maintenance, hardware</td>
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<td>configurations, software configurations,</td>
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<td>software diagnostics, and the use of test</td>
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<td></td>
<td>equipment.</td>
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<tr>
<td>CNET 52</td>
<td>PC Operating Systems</td>
<td>4</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: CNET 50 taken prior</td>
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<tr>
<td>CNET 60</td>
<td>A+ Certification Preparation</td>
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<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: CNET 54 taken prior</td>
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<td>CNET 62</td>
<td>Network+ Certification Preparation</td>
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<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: CNET 56</td>
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<td>CNET 64</td>
<td>Server + Certification Preparation</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: CNET 56</td>
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</tbody>
</table>

**Course Descriptions**

- **CSCI 150L** — Assembly Language Laboratory 1 Unit
  - Degree Applicable, CSU, UC
  - May be taken for Pass/No Pass only
  - 54 hours lab
  - Advisory: CSCI 150
  - Complements the lecture material in CSCI 150. Development/debugging
  - Corequisite: CSCI 200
  - Development/debugging
  - An independent study program designed to complement the lecture material presented in CSCI 220, Data Structures. Hands-on computer work will include problem solving in linear data structures, strings, and trees.

- **CSCI 190** — Discrete Mathematics Applied to Computer Science 4 Units
  - Degree Applicable, CSU, UC
  - 72 hours lecture
  - Prerequisite: MATH 71 or equivalent
  - Provides students with the mathematical background necessary in Computer Science: set theory, logic, modular arithmetic, combinatorics, finite probability and graphs. Topics include propositional and predicate calculus, recursion, binary search trees and counting techniques.

- **CSCI 210** — Applied Logic for Computers 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Prerequisite: CSCI 110
  - Basic concepts of digital systems, introduction to Boolean algebra, truth tables, Karnaugh maps, combinational elements and networks, state diagrams, state tables, sequential elements and networks.

- **CSCI 220** — Data Structures I 3 Units
  - Degree Applicable, CSU, UC
  - 54 hours lecture
  - Prerequisite: CSCI 140 or CSCI 145
  - Corequisite: CSCI 220
  - Abstract data types and running time analysis tools. Linear data structures including sets, stacks, queues, and linked lists. Trees, binary search trees, heaps, and priority queues. Many procedures are discussed using an algorithmic language and selected problems are programmed in a higher level language.
COURSES

CORS 10 — Introduction to Correctional Sciences 3 Units
54 hours lecture
Overview of the field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as a member of the Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.

CORS 15 — Control and Supervision of the Offender 3 Units
54 hours lecture
Examine methods of controlling and supervising inmates. Emphasizes California’s methods in rapidly-expanding institutions.

CORS 20 — Correctional Law 3 Units
54 hours lecture
Legal and due process rights for inmates. Inmate rights vs. needs of society, State, federal, and appellate court decisions.

CORS 25 — Probation and Parole 3 Units
54 hours lecture
Historical development of probation and parole with emphasis on current California programs. Defines the roles of courts, parole boards and the duties and responsibilities of the staff of probation and parole agencies.

CORS 30 — Ethnic Relations in Corrections 3 Units
54 hours lecture
Historical development of probation and parole with emphasis on current California programs. Defines the roles of courts, parole boards and the duties and responsibilities of the staff of probation and parole agencies.

CORS 35 — Interviewing and Counseling in Corrections 3 Units
54 hours lecture
Techniques of interviewing and counseling in the field of corrections with emphasis on practical application. Needs of the client and agency will be stressed.

CORS 40 — Crime and Delinquency 3 Units
54 hours lecture
Criminal behavior and types of crime and effects on society and victims. Stresses property crime, property offender, motivation, and methods of control used by society.

CORS 45 — The Violent Offender 3 Units
54 hours lecture
Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim.

COUN 1 — Introduction to College 1 Unit
18 hours lecture
Introduction to higher education and the college experience. Includes orientation to college life and higher education resources. Explores graduation, transfer, and career options, factors in educational decision making.

COUN 2 — College Success Strategies 3 Units
54 hours lecture
Assists students in evaluating their readiness for a successful college experience. Explores strategies and techniques to be an effective college student, including time management, study skills, college resources, career exploration and educational planning. Develops skills necessary to reach educational and career goals.

COUN 5 — Career/Life Planning 3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 68
A systematic approach to self-exploration and career/life planning which includes identification of values, interests, skills and self-management style. Develop decision-making and goal-setting skills and identify barriers to success. Explores careers and job search techniques.

COUN 7 — Introduction to the Transfer Process 2 Units
36 hours lecture
Advisory: ENGL 68
Introduction and orientation to the transfer process to a four-year institution. Includes an in-depth exploration of transfer requirements, admission procedures and requirements for majors. Also explores academic and support services, financial aid and other transitional issues to enable students to make informed choices on majors and four-year institutions and in academic planning. Field trips are required.

COUN 20 — Peer Counselor Training 2 Units
36 hours lecture
Prerequisite: Eligibility for ENGL 68
Designed for group experiences with interpersonal communication and discussion of approaches to peer counseling and advising at Mt. SAC. Provides opportunities for students to develop skills with a variety of communication styles that include open expression, active listening, and feedback. Upon completion of this course, opportunities may be available for students to become employed as peer counselors.

COUN 51 — Career Planning 1 Unit
18 hours lecture
Designed for students who want assistance in making career decisions. A variety of assessments, inventories, and computer generated information will be used in analyzing the student's potential in the world of work.

COUN 54 — Single Parent Academy 3 Units
54 hours lecture
Develop personal, educational, and career/life planning skills for single parents.

COUN 99A — Special Projects in Counseling 1 to 2 Units
(May be taken for credit)
In order to offer selected students recognition for their academic proficiency through continued instruction and practice.

COURS 357 — Peer Counseling Camp 1 to 2 Units
(May be taken four times for credit)
### DNCE 11A — Social Dance Forms I  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Introduction to teaching social dance techniques. Focus on fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to Swing, Salsa, Foxtrot, Waltz, Folk, Polka, Cha Cha and Tango. Students who repeat this course will improve proficiency through continued instruction and practice.

### DNCE 11B — Social Dance Forms II  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Advanced social dance technique. Focus on improving fundamentals of rhythm, dance positions, dance formations and introduction of advanced techniques to be used in the study of, but not limited to Swing, Salsa, Foxtrot, Waltz, Folk, Polka, Cha Cha and Tango. Students who repeat this course will improve proficiency through continued instruction and practice.

### DNCE 12A — Modern I  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Basic vocabulary, technique, and movement combinations for Modern dance. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 12B — Modern II  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate technique, movement combinations and choreography. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 13 — Modern Performance  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 108 hours activity  
Focus on improving technique and movement combinations of jazz for the student. Introduces the experienced dancer to the performance aspect of jazz dance by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 14A — Jazz I  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Basic vocabulary, technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 14B — Jazz II  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 15 — Jazz Performance  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Introduces the experienced dancer to the performance aspect of jazz dance by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 17 — Jazz Fundamentals  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 108 hours activity  
Fundamentals of jazz dance and an exploration of composition in jazz form. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 18A — Tap I  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Basic technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 18B — Tap II  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Intermediate technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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<td>DNCE 19</td>
<td>Tap Performance</td>
<td>0.5</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>Provides the beginning to advanced dancer the opportunity to experience different techniques of leading contemporary dancers and choreographers. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>DNCE 22</td>
<td>Dance Rehearsal</td>
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<td>Provides the intermediate to advanced jazz dancer the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.</td>
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<td>DNCE 30</td>
<td>Contemporary Dance</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>Provides the opportunity to experience the creative process of improvisation in dance and choreography. For all levels of Modern Dance. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
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<td>DNCE 31</td>
<td>Classical Dance</td>
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<td>Provides the proficient ballet student the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.</td>
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<td>DNCE 32</td>
<td>Commercial Dance</td>
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<tr>
<td></td>
<td>Provides the opportunity to experience the different techniques of leading contemporary dancers, teachers and choreographers. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>DNCE 33</td>
<td>Improvisation</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>Provides the opportunity to experience the creative process of improvisation in dance and choreography. For all levels of Modern Dance. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
<td></td>
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</tr>
<tr>
<td>DNCE 34</td>
<td>Dance Directives</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class. Students who repeat this course will improve proficiency through continued instruction and practice.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>DNCE 35</td>
<td>Repertory</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>Requires the intermediate to advanced dancer the opportunity to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>DNCE 39A</td>
<td>Alignment and Correctives I</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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</tr>
<tr>
<td></td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>DNCE 39B</td>
<td>Alignment and Correctives II</td>
<td>0.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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</tr>
<tr>
<td></td>
<td>Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tbody>
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**DNCE 19 — Tap Performance**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the beginning to advanced dancer the opportunity to experience different techniques of leading contemporary dancers and choreographers. Students who repeat this course will improve skills through further instruction and practice.

**DNCE 22 — Dance Rehearsal**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the intermediate to advanced jazz dancer the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.

**DNCE 24 — Dance Production**
- **1 to 2 Units**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the opportunity to learn simple dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.

**DNCE 28 — Theater Dance I**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the opportunity to learn simple dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.

**DNCE 29 — Theater Dance II**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the opportunity to learn complex dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.

**DNCE 30 — Contemporary Dance**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the opportunity to experience the creative process of improvisation in dance and choreography. For all levels of Modern Dance. Students who repeat this course will improve proficiency through continued instruction and practice.

**DNCE 31 — Classical Dance**
- **.5 to 2 Units**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the proficient ballet student the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.

**DNCE 32 — Commercial Dance**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the opportunity to experience the different techniques of leading commercial dancers, teachers and choreographers. Students who repeat this course will improve skills through further instruction and practice.

**DNCE 33 — Improvisation**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the opportunity to experience the creative process of improvisation in dance and choreography. For all levels of Modern Dance. Students who repeat this course will improve proficiency through continued instruction and practice.

**DNCE 34 — Dance Directives**
- **.5 to 1 Unit**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class. Students who repeat this course will improve proficiency through continued instruction and practice.

**DNCE 35 — Repertory**
- **2 Units**
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- Provides the opportunity for the advanced dancer to learn choreography and to perform repertory pieces at workshops and special events. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

#### DANCE: THEORY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>DN-T 18</td>
<td>Introduction to Dance</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>A survey of the profession of dance and its various art forms through lecture, discussion, demonstration, and participation. Includes multicultural dance interpretations.</td>
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<tr>
<td>DN-T 20</td>
<td>History and Appreciation of Dance</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>Survey of dance in western civilization. History of dance in chronological sequence emphasizing the cultural background and historical development of various forms and styles of dance to include discussion of the influence of dance on other art forms.</td>
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#### DISABLED STUDENTS

<table>
<thead>
<tr>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DSPS 10</td>
<td>College Transition Strategies for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: Eligibility for READ 80</td>
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<tr>
<td></td>
<td>Introduces students with disabilities to college, including campus resources and college success factors. Explores strategies for successful transition to college. Topics include self-advocacy, college resources, self-management, educational accommodations, effective learning methods, and goal setting.</td>
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<tr>
<td>DSPS 15</td>
<td>Personalized Career Exploration for Students with Disabilities</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>Self-evaluation including interests, experiences, personality, values, and disability-related limitations as they relate to educational and career decisions. Identification of skills and resources, including those that relate to disability factors. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>DSPS 16</td>
<td>Educational and Career Options for Students with Disabilities</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<tr>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>Students will identify educational and career options. Emphasis on strategies that facilitate disability-sensitive career and educational planning. Barriers to employment and other disability issues are addressed. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>DSPS 20</td>
<td>Improving Spelling and Reading of Words</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<tr>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Improve reading and spelling skills for multi-syllabic words. Includes sounding letters, oral movements, and common “rules” for reading and spelling words. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
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</tr>
<tr>
<td>DSPS 30</td>
<td>Academic Success Strategies for Students with Disabilities</td>
<td>1</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: Concurrent enrollment in ENGL 67 or above, or MATH 50 to MATH 130</td>
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<tr>
<td></td>
<td>Strategies for academic success in relationship to disabilities. Primary emphasis will be on the effects of and strategies for auditory processing, language expression, memory, fluid reasoning, and performance speed. Secondary emphasis will be on strategies to improve subject-specific performance. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>DSPS 31</td>
<td>Memory Strategies for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: Eligibility for READ 80. Student should have at least one other academic class for application of strategies. Principles of the memory process as it applies to academic coursework. Focus on understanding the memory process, improving specific memory components, identifying key concepts to memorize, and the independent application of memory strategies to students’ other academic courses. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>DSPS 32</td>
<td>Technology for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<td></td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: Eligibility for ENGL 67 or AMLA 42W and READ 80 or AMLA 32R. Concurrent enrollment in an academic class that requires reading and writing. Students with Learning Disabilities can improve their reading comprehension and written expression as applied to assignments in academic classes. Varied strategies using technology will be introduced to students that will aid them in understanding and learning reading assignments and in expressing their ideas in written assignments. They will select several strategies for more in-depth use and will apply them functionally in academic classes. Concurrent enrollment in an academic class that requires reading and writing is advised.</td>
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#### EDUCATION

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>EDUC 10</td>
<td>Introduction to Education</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>Introduction to the field of education for students interested in teaching at the elementary or secondary level. Principles and issues are explored including history, philosophy, politics of education, needs of learners, and educational specialization. Course includes guidance in the selection of a future area of specialization. K-12 classroom observations required.</td>
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<tr>
<td>EDUC 16</td>
<td>Aspects and Issues in Teaching</td>
<td>3</td>
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<td></td>
<td>Service Learning</td>
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<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>Survey of the teaching profession, providing students opportunities to explore aspects of the career, including teaching and learning styles, state content standards and testing, recent California and national legislation, sociol issues, school funding and teacher rights and responsibilities.</td>
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#### ELECTRONICS

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<tr>
<td>ELEC 10</td>
<td>Introduction to Mechatronics</td>
<td>2</td>
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<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>Advisory: Eligibility for ENGL 68</td>
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<td></td>
<td>An introduction to the field of mechatronics, a combination of conventional electronic technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.</td>
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### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
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<th>CSU</th>
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<tr>
<td>ELEC 11 —</td>
<td>Technical Applications in Microcomputers</td>
<td>3</td>
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<td>ELEC 12 —</td>
<td>Computer Simulation and Troubleshooting</td>
<td>2</td>
<td>Degree Applicable</td>
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<td>ELEC 50A —</td>
<td>Electronic Circuits (DC)</td>
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<td>ELEC 50B —</td>
<td>Electronic Circuits (AC)</td>
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<tr>
<td>ELEC 51 —</td>
<td>Electronic Devices</td>
<td>4</td>
<td>Degree Applicable</td>
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<td>ELEC 53 —</td>
<td>Communications Circuits</td>
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<td>Industrial Electronics</td>
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<td>ELEC 54B —</td>
<td>Industrial Electronic Systems</td>
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<td>ELEC 56 —</td>
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<td>ELEC 57 —</td>
<td>Electronic Assembly and Fabrication</td>
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<td>Electronic Assemblies Recertification</td>
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<td>ELEC 59 —</td>
<td>Electrical Code-Residential</td>
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<td>Microprocessor Systems</td>
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<td>ELEC 61 —</td>
<td>Electronic Assembly and Fabrication</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td>ELEC 62 —</td>
<td>Advanced Surface Mount Assembly and Rework</td>
<td>2</td>
<td>Not Degree Applicable</td>
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<tr>
<td>ELEC 63 —</td>
<td>Electronic Assemblies Recertification</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td>ELEC 66 —</td>
<td>Electrical Code-Residential</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<tr>
<td>ELEC 74 —</td>
<td>Microprocessor Systems</td>
<td>4</td>
<td>Degree Applicable</td>
<td>CSU</td>
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</table>
ELEC 76 — Radio Telephone Communications 3 Units
Not Degree Applicable
54 hours lecture
Prepares qualified electronic technicians for the FCC and/or NARTE commercial licenses for technicians and engineers in the communications field.

ELEC 81 — Laboratory Studies in Electronics Technology 1 to 2 Units
Degree Applicable
(May be taken two times for credit)
54 to 108 hours lab
Advisory: ELEC 50B taken prior or concurrently
Extended laboratory experience supplementary to that available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.

ELEC 91 — Work Experience in Electronics 1 to 4 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: ELEC 56
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

ELECTRONICS SYSTEMS TECHNOLOGY

EST 50 — Electrical Fundamentals for Cable Installations 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Electrical fundamentals for cable and wire installations, and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 52 — Fabrication Techniques for Cable Installation 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 54 — Cabling and Wiring Standards 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 50, EST 52
Cable and wire standards of video, voice, and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 56 — Home Electronic Systems 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 54
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming, and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 62 — Electronic Troubleshooting-I 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 56
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby 5.1), and video circuits (analog TV).

EST 64 — Electronic Troubleshooting - II 4 Units
Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 62
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

EST 70 — C-7 Low Voltage Systems License Preparation 4 Units
Degree Applicable
36 hours lecture
Advisory: EST 56 or ECWT 56 taken prior
Prepares for the California State Contractors C-7 Low Voltage Systems license examination. Students who repeat this course will improve skills through further instruction and practice.

EMS 1 — Fundamentals for Paramedics 4 Units
Degree Applicable
72 hours lecture
Prerequisite: Completed Paramedic Program application, current California EMT I (Basic) certificate, and six months employment as an EMT I
Advisory: Eligibility for ENGL 68
Overview of emergency medical services (EMS) competencies, current practices, medical terminology, emphasis on applied physiology and structure and function of human body systems. Pre-course for the Paramedic Program.

EMS 10 — Anatomy and Physiology for Paramedics 2 Units
Degree Applicable
39 hours lecture
Prerequisite: Admission to Paramedic Program and EMS 1
Corequisite: EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60
Gross anatomy and physiology of the human body, with applications to paramedic practices.

EMS 20 — Emergency Cardiac Care for Paramedics 1 Unit
Degree Applicable
20 hours lecture
6 hours lab
Prerequisite: Admission to the Paramedic Program
Corequisite: EMS 10, EMS 30, EMS 40, EMS 50, and EMS 60
Certifies paramedics in Basic Life Support (BLS-CPR), Pediatric Advanced Life Support (PALS), and Advanced Cardiac Life Support (ACLS).

EMS 30 — Pharmacology for Paramedics 2 Units
Degree Applicable
39 hours lecture
13 hours lab
Prerequisite: Admission to the Paramedic Program
Corequisite: EMS 10, EMS 20, EMS 40, EMS 50, and EMS 60
Commonly used paramedic drugs, with emphasis on dosages supplied and ordered, routes of administration, expected therapeutic outcomes and possible adverse reactions.

EMS 40 — Cardiology for Paramedics 5 Units
Degree Applicable
91 hours lecture
Prerequisite: Admission to the Paramedic Program
Corequisite: EMS 10, EMS 20, EMS 30, EMS 50, and EMS 60
Familiarizes the paramedic with the normal and the diseased heart; includes assessment tools, interpretation of various dysrhythmias and appropriate paramedic interventions.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 50</td>
<td>Paramedic Skills Competency</td>
<td>4.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>52 hours lecture</td>
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<tr>
<td></td>
<td>104 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and</td>
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<td>EMS 60</td>
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<tr>
<td></td>
<td>Perfect the paramedic skills required for field</td>
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<td></td>
<td>operation as a paramedic and for certification</td>
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<td>in competency-based exams.</td>
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<tr>
<td>EMS 60</td>
<td>EMS Theory for Paramedics</td>
<td>8.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>156 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<tr>
<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and</td>
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<td></td>
<td>EMS 50</td>
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<tr>
<td></td>
<td>Theories and principles of paramedic practices,</td>
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<td>including assessment skills, care of the sick</td>
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<td></td>
<td>and injured at a paramedic level, with applications</td>
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<td>to anatomy and physiology, pathologic processes, and mechanism of injury.</td>
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<td>EMS 70</td>
<td>Paramedic Clinical Internship</td>
<td>3.5</td>
<td>Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>200 hours lab</td>
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<td></td>
<td>Application of concepts of paramedic theory and practices, with emphasis on patient assessment and utilization of paramedic skills in a hospital setting.</td>
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<td>EMS 80</td>
<td>Paramedic Field Internship</td>
<td>8.5</td>
<td>Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>480 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: Successful completion of Los Angeles County accreditation exam</td>
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<td></td>
<td>Corequisite: EMS 70 (may have been taken previously)</td>
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<tr>
<td></td>
<td>Application of concepts of paramedic theory and practices, with emphasis on patient assessment and utilization of paramedic skills in a field setting on an operational paramedic unit.</td>
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### Emergency Medical Technician

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>EMT 90</td>
<td>Emergency Medical Technician I</td>
<td>10</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>144 hours lecture</td>
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<tr>
<td></td>
<td>126 hours lab</td>
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<td>Prerequisite: High school graduation or equivalent and minimum of 18 years of age</td>
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<td>Approved by the L.A. County and State Departments of Health. Emphasizes the development of skill in recognition of symptoms of illnesses and injuries, and proper procedures of pre-hospital emergency care. Awards an EMT - I Course Completion Certificate, necessary for many jobs in emergency care and is a prerequisite for entry into a Paramedic program and most fire department jobs.</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>EMT 91</td>
<td>Emergency Medical Technician I Refresher</td>
<td>2</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>40 hours lecture</td>
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<td>Prerequisite: Completion of a State or County Department of Health (or out-of-state) approved course and possession of a currently valid EMT-I certificate or one which has expired for no more than 20 months</td>
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<td>Approved by the L.A. County and State Departments of Health. Required of all Emergency Medical Technician - I personnel every two years in order to maintain eligibility for employment in an emergency response agency and to keep certification valid. Course covers all required material and current changes/updates in pre-hospital emergency care at the EMT-I level</td>
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### Engineering

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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>ENGR 1</td>
<td>Introduction to Engineering</td>
<td>1</td>
<td>Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>18 hours lecture</td>
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<td>Introduction to the engineering profession; academic requirements; articulation agreements with four-year institutions; engineering ethics; professional engineering licensure; engineering study as a preparation for other careers; academic success strategies.</td>
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<td>ENGR 8</td>
<td>Properties of Materials</td>
<td>4</td>
<td>Degree Applicable</td>
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<td>(CAN ENGR04)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>72 hours lecture</td>
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<td>Prerequisite: CHEM 40 or 50 and PHYS 4A or 246</td>
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<td>Mechanical, electrical, magnetic, optical and thermal properties of engineering materials and their relation to the materials' internal structure. Atomic structure and bonding; crystalline structures; phase and phase diagrams; metals; polymers; ceramics; composites; mechanical deformation and fracture; structural control and influence of properties; materials naming and designating systems; corrosion process; lasers; semiconductors; electronic packaging materials.</td>
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<tr>
<td>ENGR 18</td>
<td>Introduction to Engineering Graphics</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>(CAN ENGR06)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Fundamental engineering graphics and problem solving techniques. Skills in freehand and instrument drawing are developed and applied to the solution of problems. Orthographic, isometric and oblique drawings.</td>
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<th>Course Code</th>
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<th>Degree Applicable</th>
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<tbody>
<tr>
<td>ENGR 24</td>
<td>Engineering Graphics</td>
<td>4</td>
<td>Degree Applicable</td>
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<td>(CAN ENGR02)</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Prerequisite: PHYS 4A</td>
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### Dynamic

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<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>ENGR 41</td>
<td>Dynamics</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: ENGR 40</td>
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<th>Degree Applicable</th>
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<tbody>
<tr>
<td>ENGR 42</td>
<td>Mechanics of Materials</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: ENGR 40</td>
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<tbody>
<tr>
<td>ENGR 44</td>
<td>Electrical Engineering</td>
<td>4</td>
<td>Degree Applicable</td>
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<td>(CAN ENGR06)</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: PHYS 48</td>
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<td>Introduction to electrical circuit analysis; systems of units; applications of Kirchoff's Laws and Thévenin's Theorems to D-C and A-C circuits. Mesh and nodal analysis; RL and RC transients; phasors and steady-state sinusoidal analysis; response as a function of frequency; current, voltage, and power relationships; polyphase circuits; periodic forcing functions; Norton's Theorem; three-phase circuits.</td>
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### ENGINEERING DESIGN TECHNOLOGY

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<th>Course Code</th>
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<th>Description</th>
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</table>
| EDT 11      | Technical Engineering Drawing I                   | 3     | 36 hours lecture 72 hours lab  
Advisory: EDT 11, EDT 12  
Basic skills for a solid foundation in the Engineering Drawing or Computer-Aided Design fields. Involves application, basic sketch, theories and design processes used in engineering and industrial drawings. Completion of a portfolio is a requirement of this course. |
| EDT 12      | Technical Engineering Drawing II                  | 3     | 36 hours lecture 77 hours lab  
Advisory: EDT 11  
Advanced applications, automated techniques, dimensioning, tolerancing, fasteners, piping, circuit board design, theory used in engineering and industrial drawings. Students will complete a set of working drawings in either manual or CAD for inclusion in a portfolio. |
| EDT 14      | Mechanical Design - Geometric Dimensioning and Tolerancing | 3     | 36 hours lecture 72 hours lab  
Advisory: EDT 11, EDT 12  
Use of symbols for tolerance of form and tolerance of position and drawing requirements with respect to actual function and relationship of part features. Studies of related terminology, power transmission, bearing and mechanical devices, related exercises including design layout, details and assembly drawings. Completion of a portfolio is a requirement of this course. |
| EDT 16      | Basic CAD and Computer Applications                | 4     | 54 hours lecture 54 hours lab  
Advisory: EDT 11, EDT 12  
Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). |
| EDT 18      | Engineering CAD Applications                      | 4     | 54 hours lecture 54 hours lab  
Advisory: EDT 11, EDT 12  
Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms. |
| EDT 20      | Technical Descriptive Geometry                    | 3     | 36 hours lecture 72 hours lab  
Advisory: EDT 11  
Advanced course for solving visual and spatial problems graphically. Applies the principles of orthographic projection and 3-D visualization to solve problems that involve lines, planes, intersections, auxiliary views, and developments. A time saving skill necessary for prospective engineers and technology students. |
| EDT 24      | Engineering CAD 3-D                               | 3     | 36 hours lecture 72 hours lab  
Advisory: EDT 18  
Advanced engineering CAD for developing detailed working drawings in 3-D environments, incorporating 3-D parametric solid modeling, bill of materials, and surface development. |
| EDT 25      | Civil Engineering Technology and CAD              | 3     | 36 hours lecture 72 hours lab  
Advisory: EDT 11, EDT 12  
Theory of civil engineering projects with hands-on instruction in civil drawings and Computer Aided Drafting and Design (CAD) applications. Layout, topography maps, grading plans, sections, street improvements, and interpretation of surveyor’s data are covered. Set of CAD drawings produced for a final portfolio. |
| EDT 28      | Engineering CAD 3D Illustration/Animation         | 3     | 36 hours lecture 72 hours lab  
Advisory: EDT 18  
Advanced CAD course in three-dimensional illustration using complex entities, shading, and animation techniques. A completed video portfolio will be developed. (SolidWorks, 3DS Max, Adobe PS). |
| EDT 89      | Engineering Design Technology Work Experience     | 1 to 2 | 75 to 150 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog  
Provides on-the-job experience in Engineering Design Technology at an approved work site using skills and knowledge from classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving advanced standing (minimum 12 units in major or equivalent experience.) Students who repeat this course will improve skills through further instruction and practice. |

### ENGLISH: COMPOSITION

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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</table>
| ENGL 1A     | Freshman Composition                             | 4     | 72 hours lecture  
Prerequisite: ENGL 68 or satisfactory score on the English Placement Test  
Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material. |
| ENGL 1AH    | Freshman Composition - Honors                    | 4     | 72 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1A and ENGL 1AH. |
| ENGL 1B     | English - Introduction to Literary Types         | 3     | 54 hours lecture  
Prerequisite: ENGL 1A or ENGL 1AH  
Critical, oral and written evaluation, analysis, and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth. |
Course Descriptions

ENGL 1BH — English - Introduction to Literary Types
3 Units
Honors
(CAN ENGL03)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Critical, oral, and written evaluation, analysis and interpretation of short
and long fiction, poetry, and drama. Develops a foundation for personal,
cultural, and intellectual growth. An honors course designed to provide
an enriched experience. Students may not receive credit for both ENGL
1B and ENGL 1BH.

ENGL 1C — Critical Thinking and Writing
4 Units
72 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Develops critical thinking, reading, and writing skills beyond the level
achieved in ENGL 1A. Increases the student’s capacity for logical analysis
and argumentative writing.

ENGL 1CH — Critical Thinking and Writing - Honors
4 Units
72 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Develops critical thinking, reading, and writing skills beyond the level
achieved in ENGL 1A. The course will increase the student’s capacity for
logical analysis and argumentative writing. An honors course designed
to provide an enriched experience. Students may not receive credit for
both ENGL 1C and ENGL 1CH.

ENGL 8A — Creative Writing - Fiction
3 Units
(CAN ENGL06)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Elements, processes, and techniques of fiction writing. Includes genre,
settings, point of view, character sketch, plot development, description,
and dialogue with an emphasis of student development as a writer of
fiction through practice and discussion.

ENGL 8B — Creative Writing - Poetry
3 Units
(CAN ENGL06)
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Emphasizes the student’s development as a poet.

ENGL 8C — Creative Writing - Novel
3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ENGL 8A
Elements, processes, and techniques of novel writing. Includes genre,
settings, point of view, character sketch, plot development, description,
and dialogue with an emphasis of student development as a writer of
novels through practice and discussion.

ENGL 8D — Creative Writing - Poetry Collection
3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ENGL 8B
Elements, processes, and techniques for creating and writing poetry
collections. Includes theme, imagery, line breaks, diction, and prosody,
with an emphasis on student development as a creator of poetry
collections through practice, writing, and discussion.

ENGL 8E — Creative Writing - Memoir
3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Analysis and writing of memoirs including stylistic and syntactic forms
and composition strategies used when writing memoir.

ENGL 8F — Creative Writing - Nonfiction
3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Analysis and writing of creative nonfiction including stylistic and
syntactic forms and composition strategies used when writing creative
nonfiction.

ENGL 9 — Writing the Personal Journal
3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Journal writing. Journal methods will be patterned after Dr. Ira Progoff’s
concept of creativity and growth as well other approaches to journal
writing.

ENGL 10 — Writing Enhancement
1 Unit
Not Degree Applicable
18 hours lecture
(May be taken for option of letter grade or Pass/No Pass)
Review fundamentals of English for the student who needs a practical
course focusing on usage and grammar: case, agreement, verbs, verbals,
fragments, shifts in construction, dangling modifiers, diction,
parallelism, comma splice, and punctuation. Students who repeat this
course will improve skills through further instruction and practice.

ENGL 65 — Grammar Review
1 Unit
Not Degree Applicable
18 hours lecture
(May be taken for option of letter grade or Pass/No Pass)
Using an integrated approach, develops effective writing based on
reading; emphasizing the sentence, the outline, the summary, the
paragraph and an introduction to the essay. Gives attention to grammar,
punctuation and vocabulary. Develops critical thinking through reading
comprehension in conjunction with related writing.
ENGL 68 — Preparation for College Writing 4 Units Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: ENGL 67 or AMLA 43W or satisfactory score on the English Placement Test
Using an integrated approach, continues to develop effective writing based on reading. Reviews paragraph structure, emphasizes development of the academic essay, and introduces principles of documentation. Continues to develop critical thinking through reading of and writing about increasingly complex texts.

ENGL 75 — Vocabulary Building 3 Units Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Expands students' reading, writing and speaking vocabularies through examination of the principles of word formation, emphasizing prefixes, roots, suffixes and the effective use of dictionaries and other reference works. Students who repeat this course will improve skills through further instruction and practice.

ENGL 81 — Language Acquisition 3 Units Degree Applicable, CSU
54 hours lecture
Prerequisite: ENGL 1A
Introductory course in language structure, linguistics, language development. Explores first and second-language acquisition. Meets the Commission on Teaching Credentialing standards for Language Acquisition requirement for elementary school teaching credential.

ENGL 99 — Special Projects in English 2 Units Degree Applicable, CSU
(May be taken for credit)
36 hours lecture
To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

FCS 41 — Life Management 3 Units Degree Applicable, CSU
54 hours lecture
Life Management provides individuals with skills for understanding and using resources for effective functioning now and in the future. Explores theories of management including Maslow’s Hierarchy of Needs and systems thinking, and how they apply to the day-to-day use of one’s resources including time, energy, abilities, and money. Major topics include steps in value clarification, goal setting, decision making, problem solving, time management, money management, education and career planning, communication skills, handling change and stress, and conflict management. In addition, the course explores the effect of cultural forces and future trends on goals, values, standards, and time management.

FCS 51 — Consumer Skills, Issues, and Strategies 3 Units 54 hours lecture
Consumer skills with an emphasis on practical applications in the marketplace. Topics include history of the consumer movement, consumer rights and responsibilities, financial wellness, consumer debt, behavior, fraud, and redress. Explores the relationship between consumer skills, careers, and job skills.

FCS 80 — Financial Planning 3 Units Degree Applicable, CSU
54 hours lecture
Functional approach to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.

FCS 91 — Work Experience in Family and Consumer Sciences 1 Unit
(May be taken for credit)
36 hours lecture
Prerequisite: Compliance with work experience regulations as designated in the College Catalog.
Provides Family and Consumer Science majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.

FASH 1 — Fashion Design and CAD Lab 1 Unit Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lab
Provides design and computer laboratory experience to supplement regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

FASH 8 — Introduction to Fashion 3 Units 54 hours lecture
Examines scope of the fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.

FASH 9 — History of Costume and Fashion 3 Units 54 hours lecture
A survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.

FASH 10 — Clothing Construction I 3 Units Degree Applicable, CSU
(CAN FCS20) 54 hours lab
Development of a basic understanding of industry standard apparel construction techniques using a variety of machines and equipment. Included are marker preparation, commercial patterns, basic block fusing, and garment construction of slim skirt/pants, dress/shirt, and knit "T" shirt.

FASH 12 — Clothing Construction II 3 Units Degree Applicable, CSU
36 hours lecture
Prerequisite: FASH 10
54 hours lab
Provides design and computer laboratory experience to supplement regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

FASH 15 — Fashion Strategies 3 Units Degree Applicable, CSU
54 hours lecture
An investigative overview of sociological, psychological, cultural and fashion industry influences on clothing selection. The elements and principles of design and their impact on dress will be explored.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(CAN FCS06) Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>FASH 20</td>
<td>Illustration for Fashion and Costume Design</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric, and design detail. Students will explore a variety of mediums.</td>
</tr>
<tr>
<td>FASH 21</td>
<td>Patternmaking I</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, slopers will be created, constructed and fitted.</td>
</tr>
<tr>
<td>FASH 22</td>
<td>Fashion Design By Draping</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Intermediate pattern drafting and flat patternmaking, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses' and women's wear, to include skirts, pants, bodices, sleeves and collars.</td>
</tr>
<tr>
<td>FASH 24</td>
<td>Fashion Patternmaking by Computer</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Study of the applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns.</td>
</tr>
<tr>
<td>FASH 25</td>
<td>Fashion Computer-Assisted Drawing</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Drawing production flats, colorization and scanning images using computer as a drafting tool. Exploration of computer drafting systems and methods suitable for use in apparel industry. Concentration on Adobe Illustrator and Adobe Photoshop.</td>
</tr>
<tr>
<td>FASH 26</td>
<td>Fashion Computer Assisted Design</td>
<td>2</td>
<td>Degree Applicable</td>
<td>18 hours lecture 54 hours lab Use an advanced, industry-specific CAD system to produce high-level graphic presentations. Create color palettes, textiles, and surface designs; explore texture mapping and how it is used to create a natural drape on the fashion figure; and use the computer as a layout design tool for swatches and vector flat drawings.</td>
</tr>
<tr>
<td>FASH 27</td>
<td>Fashion Design and Product Development I</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture Advisory: FASH 15 Overview of the global environment for product development for fashion. Applies the concepts and methods by which retailers create special store-branded merchandise for targeted customer segments. Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.</td>
</tr>
<tr>
<td>FASH 28</td>
<td>Fashion Design and Product Development II</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Prerequisite: FASH 27 Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children's and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns.</td>
</tr>
<tr>
<td>FASH 29</td>
<td>Fashion Design and Product Development III</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Prerequisite: FASH 31 Advanced fashion design and product development emphasizing in portfolio format, a minimum of three lines with production flats, scale patterns, pattern charts, cost sheets and sample garments. A design sketchbook will be maintained. Includes resume preparation and job search appropriate for the fashion design industry.</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development IV</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Advisory: FASH 15 Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.</td>
</tr>
<tr>
<td>FASH 31</td>
<td>Fashion Design and Product Development V</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Prerequisite: FASH 20, FASH 21 or 22, and FASH 30 Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children's and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns.</td>
</tr>
<tr>
<td>FASH 32</td>
<td>Fashion Design and Product Development VI</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Advisory: FASH 15 Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.</td>
</tr>
<tr>
<td>FASH 33</td>
<td>Fashion Design and Product Development VII</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Advisory: FASH 15 Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.</td>
</tr>
<tr>
<td>FASH 34</td>
<td>Fashion Design and Product Development VIII</td>
<td>3</td>
<td>Degree Applicable</td>
<td>36 hours lecture 54 hours lab Advisory: FASH 15 Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.</td>
</tr>
<tr>
<td>FASH 35</td>
<td>Special Topics in Fashion Design</td>
<td>2</td>
<td>Not Degree Applicable</td>
<td>(May be taken four times for credit) 18 hours lecture 54 hours lab Prerequisite: FASH 10 Provides exploratory design experience to enhance basic fashion design curriculum. Students will explore advanced garment design and/or construction techniques. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>FASH 36</td>
<td>Retail Store Management and Merchandising</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service. Students may not receive credit for both FASH 62 and BUSS 50.</td>
</tr>
<tr>
<td>FASH 37</td>
<td>Advertising and Promotion</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture Characteristic and role of advertising and promotion in business are explored. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy. Students may not receive credit for both FASH 63 and BUSS 33.</td>
</tr>
<tr>
<td>FASH 38</td>
<td>Visual Merchandising Display</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td>36 hours lecture 54 hours lab Analysis of visual merchandising applied to interior and exterior displays and floor merchandising within the fashion industry. Includes psychology of store layout, current methods of visual merchandising, and use of mannequins, pinning, and flying.</td>
</tr>
</tbody>
</table>
### FASH 90 — Field Studies  
1 Unit  
Degree Applicable  
(May be taken two times for credit)  
18 hours lecture  
Pre-trip lectures on the development of the ready-to-wear industry including background information on specific designer studios, factories, and retail stores to be visited, plus travel information for the trip. Students who repeat this course will improve skills through further instruction and practice.  
(May be taken for Pass/No Pass only)

### FASH 91 — Field Studies · New York  
2 Units  
Degree Applicable  
(May be taken two times for credit)  
36 hours lecture  
Corequisite: FAM 90 (may have been taken previously)  
Fashion industry travel study in New York City with daily scheduled lectures and field studies of the diverse fashion industries to include major designers, fashion trend services, retailers, manufacturers, costume/textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.

### FASH 92 — Field Studies · Fashion Capitals  
3 Units  
Degree Applicable  
(May be taken two times for credit)  
54 hours lecture  
Corequisite: FAM 90 (may have been taken previously)  
Fashion industry travel study to fashion capitals with daily scheduled lectures and field studies of the diverse international industry to include designers, fashion trend services, retailers, manufacturers, textile mills, costume textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.

### FIRE TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
</table>
| FIRE 1 — Fire Protection Organization | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Career options and opportunities in fire protection and related fields; history of fire protection, fire loss analysis, public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics. |
| FIRE 2 — Fire Prevention Technology | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Introduction and history of fire prevention, including codes, ID and correction of hazards, investigation, and safety education. |
| FIRE 3 — Fire Protection Equipment and Systems | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Includes the study of portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, fire alarm and detection systems, design and operation of sprinkler systems, water supply and fire extinguishers. |
| FIRE 4 — Building Construction for Fire Protection | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Building construction and fire code safety effects on preplanning, engineering, inspections, fire ground operations, fire and building codes relationships. |
| FIRE 5 — Fire Behavior and Combustion | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Theory of how and why fires start, spread and are controlled; in depth study of fire chemistry and physics, fire characteristics of materials, extinguishing of materials, extinguishing agents and fire control techniques. |
| FIRE 6 — Hazardous Materials/ICS | 3 Units | Degree Applicable | 54 hours lecture  
Hazardous chemicals, their physical properties, use in industry, characteristics when involved in spills, fire and accidents. Information regarding emergency procedures, legal requirements, compliance to regulations, health effects and treatment, fire department protocols and responsibilities that meet OSHA requirements. |
| FIRE 7 — Fire Fighting Tactics and Strategy | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior | Principles of fire control through utilization of manpower, equipment and extinguishing agents, fire command and control procedures, utilization on types of building construction in fire control, review of fire chemistry, pre-fire planning, organized approach to decision making on the fire scene, basic fire fighting tactics and strategy. |
| FIRE 8 — Fire Company Organization and Management | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Advisory: FIRE 1 | Review of fire department organization, fire company organization, the company officer, personnel administration, communication, fire equipment, maintenance, training, fire prevention, fire fighting, company fire fighting capability, records and reports. |
| FIRE 9 — Fire Hydraulics | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior and eligibility for MATH 51 | Review of basic mathematics, hydraulic laws and formulas as applied to fire service, application of formulas and mental calculation to hydraulic problems, water supply problems, underwriter requirements for pumps. |
| FIRE 10 — Arson and Fire Investigation | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior | Introduction to cause, origin, arson, incendiarism, related laws and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses, procedures for handling juveniles, court procedure and testimony. |
| FIRE 11 — Fire Apparatus and Equipment | 3 Units | Degree Applicable, CSU | 54 hours lecture  
Advisory: FIRE 1 or equivalent taken prior | Mechanized equipment operated by the fire service personnel and regulations pertaining to their use. Includes driving laws, driving techniques, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance. |
| FIRE 12 — Wildland Fire Control | 4 Units | Degree Applicable, CSU | 80 hours lecture  
Advisory: Eligibility for ENGL 68 | Addresses wildland fire behavior, safety considerations, strategy, tactics, and operational differences within the wildland urban interface. |
### Course Descriptions

#### FIRE 20 — Fire Instructor 1A
- **Units:** 2
- **Degree:** Degree Applicable
- **40 hours lecture**
- **Advisory:** FIRE 46 or equivalent taken prior
- State Board of Fire Service accredited course in fire service instructional techniques, including lesson plan development, performance goals, evaluation techniques, instructor performance goals, instructor responsibilities, the learning process, instructional aids and training records. This course applies to California Fire Service Training and Education System certifications.

#### FIRE 21 — Fire Instructor 1B
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 20 or equivalent taken prior
- State Board of Fire Service accredited course in fire service instructional techniques, including methods of instruction, use of audio-visual equipment, employment of instructional aids, test construction, teaching demonstrations and reducing failure rates. This course applies to California Fire Service Training and Educational Systems certifications.

#### FIRE 22 — Fire Instructor 2A
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 21 or equivalent taken prior
- Level II preparation for fire science instructors training officers with emphasis on techniques of evaluation, test planning, constructing and using manipulative tests, test analysis, critiques, test security and records. A State Board of Fire Science accredited course.

#### FIRE 23 — Fire Instructor 2B
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 21 or equivalent taken prior
- Organizational communication skills for training officers with emphasis on leadership, interpersonal relations, developing and conducting staff meetings, assertive and argumentative presentations and encouraging staff participation. A State Board of Fire Science accredited course.

#### FIRE 24 — Fire Instructor 2C
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 21 or equivalent taken prior
- Preparation for fire personnel instructor/training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

#### FIRE 30 — Fire Management 1
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 8 or FIRE 86 or equivalent taken prior
- State Board of Fire Services accredited course in fire management designed to develop an understanding of the changing role of the fire officer, building leadership skills, appraising and developing employee performance and communication skills.

#### FIRE 31 — Fire Management 2A — Organizational Development and Human Relations
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 30 taken prior
- Level II California Fire Service Training and Education System chief officers certified course in basic principles of organization and development of general management skills. Includes problem solving, cultural diversity, motivation, performance management and organizational politics.

#### FIRE 32 — Fire Management 2B - Fire Service Financial Management
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 30
- Budget preparation and financial management of personnel, stations, fire equipment, and other fire department resources.

#### FIRE 33 — Fire Management 2D - Master Planning in the Fire Service
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 31
- For fire personnel responsible for master planning fire protection needs for a city, county or state fire agency. Covers program and master planning, forecasting, systems, policy analysis and design.

#### FIRE 34 — Fire Management 2E - Personnel and Labor
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 31
- For fire supervisors and managers responsible for supervision, implementing department policies, diversity, labor relations, human resources and legal issues.

#### FIRE 40 — Fire Prevention 1A
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 5, FIRE 86, or equivalent taken prior
- First Level I course qualifies the student as a Certified Prevention Officer through the California Fire Service Training and Education System. Includes responsibilities of fire prevention personnel, procedures for correcting hazards, origin and history of fire prevention efforts in the U.S., basic fire prevention functions, occupancy identification, building preparation, record management, exit requirements, electrical hazards, plan review and safety education.

#### FIRE 41 — Fire Prevention 1B
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 40 or equivalent taken prior
- Second Level I California Fire Service Training and Education System certified course in fire prevention. Includes relationship of life safety codes and building construction principles, exiting requirements, fire protection systems, basic electrical theory, fire drills and training, fire inspection reports, plans specifications processing, and fire prevention complaints.

#### FIRE 42 — Fire Prevention 1C
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 40 and FIRE 41 or equivalent taken prior
- Third Level I California Fire Service Training and Education System certified course in fire prevention. Includes physical properties of flammable and combustible liquids, storage practices, transportation and controlling of flammable and liquefied gases.

#### FIRE 43 — Fire Prevention 2A
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior
- First Level II California Fire Service Training and Education System certified course in fire prevention for career fire personnel. Includes standards, laws and regulations pertaining to construction requirements for buildings, sprinklers and alarm systems, installation procedures and requirements associated with fire protection systems.

#### FIRE 44 — Fire Prevention 2B
- **Units:** 2
- **Degree Applicable**
- **40 hours lecture**
- **Advisory:** FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior
- Second Level II California Fire Service Training and Education Systems certified course in fire prevention for fire personnel. Includes interpreting the fire and building codes, California codes of regulation pertaining to fire and life safety standards.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
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<tbody>
<tr>
<td>FIRE 45 — Fire Prevention 2C</td>
</tr>
</tbody>
</table>
| 40 hours lecture  
Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior  
Third Level II California Fire Service Training and Education System certified course in fire prevention for fire personnel. Includes standards required for industrial ovens, cleaning and finishing processes, welding, refrigeration systems, medical gasses and fireworks. |

| FIRE 50 — Fire Command 1A | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 7, FIRE 86 taken prior  
Level I California Fire Service Training and Education System certified course designed for first-in incident commander and company officers. Includes command principles for company officers, initial decision and action processes at a working fire, fire behavior, fireground resources, operations and command management. |

| FIRE 51 — Fire Command 1B | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 50 or equivalent taken prior  
Level I California Fire Service Training and Education System certified course designed for first-in incident commander and company officers. Provides incident management information on tactics, strategies, and scene management for multi-casualty incidents, hazardous materials incidents, and wildland fires. |

| FIRE 52 — Fire Command 2A - Command Tactics at Major Fires | 2 Units | Not Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 51  
For fire officers managing fires using the Incident Command System (ICS) when commanding multiple alarms. Includes unified command structures and areas of geographical divisions. |

| FIRE 53 — Fire Command 2B - Management of Major Hazardous Material Incidents | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 51  
For fire officers responsible for hazardous material responses. Includes community planning, research, legislation enforcement and litigation from hazardous materials responses. |

| FIRE 54 — Fire Command 2C - High-Rise Fire Tactics | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 51  
A system-based approach applied to high-rise fires. Includes pre-fire planning, building inventory, problem identification, ventilation methods, water supply, elevators, life safety and strategy and tactic operations. |

| FIRE 55 — Fire Command 2D - Disaster Planning and Management | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 51 taken prior  
Level II California Fire Service Training and Education System chief officer certified course for supervisory and managerial fire service personnel responsible for emergency disaster planning and implementing the Standard Emergency Management System, emphasizing the integrated team approach to managing emergencies. |

| FIRE 56 — Fire Command 2E - Wildland Fire Control | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 51  
For supervisory and managerial fire service personnel responsible for management and coordination of an extended wildland fire incident. |

| FIRE 57 — Fire Investigation 1A | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 10, FIRE 86, or equivalent taken prior  
Level I California Fire Service Training and Education System certified course designed for firefighters, fire investigators and law enforcement officers assigned to fire investigation. Includes a basic overview of fire scene investigation with the focus on fire scene indicators and determine the fire's cause and origin. |

| FIRE 58 — Fire Investigation 1B | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 60 or equivalent taken prior  
Level I California Fire Service Training and Education System certified course designed for firefighters and investigation personnel. Includes juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives and fatalities. |

| FIRE 59 — Fire Investigation 2A - Fire Cause Determination 1 | 2 Units | Not Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 60, FIRE 61  
Designed for in-service fire personnel completing their Fire Investigation II Certification and provides the information to successfully investigate, apprehend, and convict arsonists. |

| FIRE 60 — Fire Investigation 2B - Fire Cause Determination 2 | 2 Units | Not Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 61 and FIRE 62  
Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation I course (FIRE 62). |

| FIRE 61 — Fire Investigation 1A | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 60 or equivalent taken prior  
Level I California Fire Service Training and Education System certified course designed for firefighters, fire investigators and law enforcement officers assigned to fire investigation. Includes a basic overview of fire scene investigation with the focus on fire scene indicators and determine the fire's cause and origin. |

| FIRE 62 — Fire Investigation 1B | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 60 or equivalent taken prior  
Level I California Fire Service Training and Education System certified course designed for firefighters and investigation personnel. Includes juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives and fatalities. |

| FIRE 63 — Fire Investigation 2A - Fire Cause Determination 1 | 2 Units | Not Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 60, FIRE 61  
Designed for in-service fire personnel completing their Fire Investigation II Certification and provides the information to successfully investigate, apprehend, and convict arsonists. |

| FIRE 64 — Fire Investigation 2B - Fire Cause Determination 2 | 2 Units | Not Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 61 and FIRE 62  
Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation I course (FIRE 62). |

| FIRE 65 — Special Issues in Fire Technology | 2 Units | Degree Applicable |
| 40 hours lecture  
Advisory: FIRE 54, FIRE 85, or equivalent taken prior  
California Fire Service Training and Education System certified accredited course in fire prevention for fire personnel. Includes standards required for understanding, interpreting and applying State Fire Marshall's Regulation requirements based on type of occupancy, construction, fire extinguishing systems, exits, alarm systems and institutional occupations. |

| FIRE 66 — Basic Fire Academy | 12 Units | Degree Applicable |
| 138 hours lecture  
382 hours lab  
Prerequisite: FIRE 1 through FIRE 6 or equivalent, EMT certified and either PE-F 50 or PE-F 51 or PE-F 52 (or equivalent)  
Corequisite: PE-F 53  
Instructor in the proper use of standard fire department apparatus and equipment, salvage covers and fire extinguishment techniques, etc., in accordance with the State Board of Fire Services. Prepares students to meet manipulative skills standards established by the local fire agencies, associations and unions. |

| FIRE 67 — Title 19/24 Workshop | 1 Unit | Degree Applicable |
| 24 hours lecture  
Advisory: FIRE 40 or equivalent taken prior  
California Fire Service Training and Education System certified accredited course in fire prevention for fire personnel. Includes standards required for understanding, interpreting and applying State Fire Marshall's Regulation requirements based on type of occupancy, construction, fire extinguishing systems, exits, alarm systems and institutional occupations. |

| FIRE 68 — Explorer Fire Academy | 2 Units | Not Degree Applicable |
| 58 hours lecture  
48 hours lab  
Specialized Fire Academy designed for fire explorers. Instruction in the proper use of fire and rescue apparatus and equipment and fire extinguishing techniques in accordance with the State of California and local fire departments. |

| FIRE 88 — Firefighter Exam Preparation | .5 Unit | Not Degree Applicable |
| 8 hours lecture  
Prepares applicants for entry-level firefighter positions for the CWH Research Inc. Firefighter Exam, offered in conjunction with the Los Angeles Area Fire Chief's Association. Two four-hour sessions including administration of written examination. |
COURSE DESCRIPTIONS

FIRE 91 — Fire Academy Ladders 1 Unit Not Degree Applicable
(May be taken for Pass/No Pass only)
8 hours lecture
Intensive training in ladder manipulation to prepare students for Fire Academy and physical fitness tests given by the fire departments.

FIRE 96 — Work Experience Fire Science 2 Units Degree Applicable
(May be taken four times for credit)
150 hours activity
Prerequisite: Completion with Work Experience regulations as designated in the College Catalog
Work experience in fire service at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving a minimum of 12 units in fire service. Students who repeat this course will improve skills through further instruction and practice.

FRENCH

FRCH 1 — Elementary French 4 Units (CAN FREN02) Degree Applicable, CSU, UC
72 hours lecture
(CAN FREN SEQ A) Intended for students without previous exposure to French. Begins to develop the ability to converse, read and write in French. Emphasis is on oral proficiency. Includes the study of principles of language learning, pronunciation, basic vocabulary and grammatical structures. Extensive exposure to the cultures of French-speaking countries.

FRCH 2 — Continuing Elementary French 4 Units (CAN FREN04) Degree Applicable, CSU, UC
72 hours lecture
(CAN FREN SEQ A) Prerequisite: FRCH 1 or equivalent
Further development of conversational, reading and writing skills in French, with emphasis on communicative skills, expansion of vocabulary and understanding of structure. Extensive exploration and analysis of the cultures of French-speaking countries.

FRCH 3 — Intermediate French 4 Units (CAN FREN08) Degree Applicable, CSU, UC
72 hours lecture
(CAN FREN SEQ B) Prerequisite: FRCH 2 or equivalent
Expansion of vocabulary and structural components. Further development of communicative proficiency with increasing emphasis on reading and writing. Extensive exposure to culture from France and other French-speaking countries.

FRCH 4 — Continuing Intermediate French 4 Units (CAN FREN10) Degree Applicable, CSU, UC
72 hours lecture
(CAN FREN SEQ B) Prerequisite: FRCH 3 or equivalent
Continued development of competencies with the goal of attaining intermediate-high level proficiency in French. Increasing emphasis on reading and writing. Extensive exposure to cultural elements such as art, music, film, and history from France and other French-speaking countries.

FRCH 5 — Advanced French 4 Units Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: FRCH 4 or equivalent
Provides further insight into the cultures of France and other French-speaking countries to reach an advanced level of proficiency in the language. Includes analysis of short literary works from diverse cultures, and group discussions about contemporary topics found in films and newspaper articles.

FRCH 6 — Continuing Advanced French 4 Units Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: FRCH 5 or equivalent
Extensive reading and analysis of short literary works from diverse French and French-speaking cultures. Discussion of films, newspaper articles and contemporary topics. Develops fluency in French through group discussions, oral presentations, and writing.

FRCH 52 — Conversational French 1 3 Units Degree Applicable
54 hours lecture
Prerequisite: FRCH 1 or equivalent
Development of intermediate French conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to French culture. Grammar is presented in context.

FRCH 53 — Intermediate Conversational French 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: FRCH 2 or FRCH 52 or equivalent
Develops intermediate level fluency through expansion of vocabulary and practical use of language.

FRCH 54 — Continuing Intermediate Conversational French 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: FRCH 3 or FRCH 53 or equivalent
Develops intermediate-high fluency through further expansion of vocabulary and practical use of language.

FRCH 60 — French Culture Through Cinema 3 Units Degree Applicable, CSU, UC
54 hours lecture
French culture and history as presented in classic and recent French films. Analysis of characters and political, social and artistic movements in France and other Francophone countries as reflected in the works of French-speaking film directors and writers. Lectures and class discussions conducted in English. All films with English subtitles.

GEOGRAPHY

GEOG 1 — Elements of Physical Geography 3 Units (CAN GEOG02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Study of the natural processes that interact to create the Earth's varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape.

GEOG 1H — Elements of Physical Geography - Honors 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Study of the natural processes that interact to create the Earth's varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1 and GEOG 1H.
### COURSE DESCRIPTIONS

**GEOG 1L — Physical Geography Laboratory**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Corequisite: GEOG 1 or GEOG 1H (may have been taken previously)  
Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems.

**GEOG 1LH — Physical Geography Laboratory - Honors**  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Prerequisite: Acceptance into the Honors Program  
Corequisite: GEOG 1 or GEOG 1H (may have been taken previously)  
Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1L and GEOG 1LH.

**GEOG 2 — Human Geography**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Introduction to human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and basic literacy in the geography of place names and in world regional understanding.

**GEOG 2H — Human Geography - Honors**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Introduction to human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and basic literacy in the geography of place names and in world regional understanding. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 2 and GEOG 2H.

**GEOG 3 — Map Reading and Interpretation**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Provides basic map reading skills with an emphasis on map projections, earth grid systems, principles of map reading, interpretation and use of an atlas. Introduction to skills needed to use and appreciate maps as a form of communication and as a research tool.

**GEOG 5 — World Regional Geography**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Developmental study of the world’s regions, addressing the major countries in terms of population, resources, economic development, physical environment, and geographic problems.

**GEOG 8 — The Urban World**  
3 Units  
Degree Applicable, CSU, UC  
May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
The geographical analysis of past and current patterns of world urbanization. Emphasis will be placed on city origins, growth, development, and current problems.

**GEOG 10 — Introduction to Geographic Information Systems**  
3 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
Hands-on training in the principles, theory and operations of geographic information systems (GIS), including geospatial data models, analytical functions, data quality, map design and visual communication, and social and environmental applications of GIS.

**GEOG 11 — Intermediate GIS**  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: GEOG 10  
Surveys GIS fundamentals including hands on experience using hardware/software. Emphasizes vector-based data using ArcGIS and raster-based data using the software extensions.

**GEOG 20 — Geography of California**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Thematic approach to issues, processes and topics relevant to the study of California. Includes an examination of the physical processes that shape the landscapes of California, the interaction of humans with these physical processes (particularly the importance of water), and the cultural and social landscapes that have evolved as a result of this human-environment interface.

**GEOG 30 — Geography of California**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
The geographical analysis of past and current patterns of world urbanization. Emphasis will be placed on city origins, growth, development, and current problems.

**GEOG 89 — Special Projects in Geography**  
2 Units  
Degree Applicable, CSU  
May be taken four times for credit)  
36 hours lecture  
Offers selected students recognition for their academic interest and ability and the opportunity to explore their disciplines in depth. Various departments sometimes offer Special Projects courses. The content of each and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure enhanced proficiencies.

**GEOL 1 — Physical Geology**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: Eligibility for MATH 51  
An introduction to geological thinking and Earth processes. Essentials of minerals, rocks, earthquakes, volcanoes, and landscapes are presented within a framework of plate tectonics operating in concert with atmosphere and ocean processes. A required course for students entering the geosciences major. May be taken by the non-major as a transferable lab science. Required field trips may involve overnight camping.

**GEOL 2 — Historical Geology**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: GEOL 1 or equivalent  
Geologic principles are applied in tracing the tectonic, biologic, and climatic development of Earth, mainly North America, through geologic time. The study of Earth history using geologic maps, cross-sections, minerals, rocks, and fossils is integrated with basic field methods. Required field trips may involve overnight camping.

**GEOL 3 — Paleontology, Life of the Past**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
An introduction to paleontology including the history of paleontology, methods in paleontology, processes of evolution and the floral and faunal succession through geologic time.

**GEOL 6 — Earthquakes**  
1 Unit  
Degree Applicable, CSU  
18 hours lecture  
Discussions of seismic hazards in relation to life and property. Includes the study of seismic safety legislation, socio-economic impacts and prediction of earthquakes.

**GEOL 7 — Geology of California**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Introductory geology course highlighting the natural provinces of California, namely their mineral, rock, and petroleum resources, volcanoes and earthquakes, landscapes, and geologic history as influenced by plate tectonic and surface processes. Field trips are required and may involve overnight camping.
**Course Descriptions**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 8</td>
<td>Earth Science</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture A survey course that introduces fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required.</td>
</tr>
<tr>
<td>GEOL 8H</td>
<td>Earth Science - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture Prerequisite: Acceptance into the Honors Program An honors course designed to provide an enriched experience. Introduces fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. Students may not receive credit for both GEOL 8 and GEOL 8H.</td>
</tr>
<tr>
<td>GEOL 9</td>
<td>Environmental Geology</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture For non-science majors. Relevant aspects of the geological environment and the problems caused by modern humans as they use the earth and its resources. Geologic hazards, including earthquakes, volcanoes, landslides, floods, subsidence. Emphasis on geological viewpoints concerning waste disposal, pollution, geothermal energy, fossil fuels, and mining. Geologic practices related to land management, conservation of resources, and protection of the environment. Field trips included.</td>
</tr>
<tr>
<td>GEOL 10</td>
<td>Natural Disasters</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture Surveys the hazards faced by humans from the natural environment. Analyzes a variety of hazards from a geological perspective. Studies the impact humans have on influencing or exacerbating natural disasters. Includes the role of government in responding to natural disasters. Field trips included.</td>
</tr>
<tr>
<td>GEOL 11</td>
<td>Natural History of California</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field study of the natural history of the Sierra Nevada and adjacent regions. One 3-day and one 4-day weekend field trip will be required. Students may not receive credit for both BIOL 12A and GEOL 12A.</td>
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<tr>
<td>GEOL 12A</td>
<td>Natural History of California</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field study of the Sierra Nevada and adjacent areas. One 3-day and one 4-day weekend field trip. Students may not receive credit for both BIOL 12B and GEOL 12B.</td>
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<tr>
<td>GEOL 12B</td>
<td>Natural History of California</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field study of the natural history of the Sierra Nevada and adjacent areas. One 3-day and one 4-day weekend field trip. Students may not receive credit for both BIOL 12A and GEOL 12B.</td>
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<tr>
<td>GEOL 13</td>
<td>Evolution of the Earth</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture Origin and evolution of the atmosphere, oceans and continents. Special concentration on the developing landforms through the study of plate tectonics.</td>
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<tr>
<td>GEOL 14</td>
<td>Field Geology, Sierra Nevada</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field studies of the Sierra Nevada geologic provinces and the surrounding areas.</td>
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<tr>
<td>GEOL 15</td>
<td>Field Geology, Mojave Desert</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field studies of the geology of the Mojave Desert and surrounding areas.</td>
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<tr>
<td>GEOL 16</td>
<td>Field Geology, Coast Ranges</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field studies of the geology of the Coast Ranges and the San Andreas Fault System.</td>
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<tr>
<td>GEOL 17</td>
<td>Field Geology, Death Valley</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field studies of the geology of Death Valley and the Basin and Range Province.</td>
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<tr>
<td>GEOL 18</td>
<td>Geology Field Studies</td>
<td>2</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 18 hours lecture 54 hours lab Geologic field studies of the Southern California landscape to include the Transverse Ranges, Coast Ranges, San Andreas Fault, Great Valley, Sierra Nevada, Owens Valley, and the western Mojave Desert.</td>
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<tr>
<td>GEOL 19</td>
<td>Geologic Field Studies: Central California</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture Field studies of selected central California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking.</td>
</tr>
<tr>
<td>GEOL 20</td>
<td>Special Projects in Geology</td>
<td>2</td>
<td>Degree Applicable, CSU, UC 36 hours lecture In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.</td>
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**GERMAN**

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<tr>
<td>GERM 1</td>
<td>Elementary German</td>
<td>4</td>
<td>Degree Applicable, CSU, UC (CAN GERM 02) 72 hours lecture For students with no previous German. Develops the ability to converse, read, and write in German. Emphasis on oral proficiency. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Germanic culture.</td>
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<td>Course Code</td>
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<td>GERM 2</td>
<td>Continuing Elementary German</td>
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<td>GERM 3</td>
<td>Intermediate German</td>
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<td>HIST 1</td>
<td>History of the United States</td>
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<td>HIST 2</td>
<td>History of World Civilization</td>
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<td>HIST 3</td>
<td>History of the United States - Honors</td>
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<td>HIST 8</td>
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<td>HIST 9</td>
<td>History of the United States - Honors</td>
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<tr>
<td>HIST 10</td>
<td>History of Asia</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>HIST 11</td>
<td>History of Asia</td>
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<td>Degree Applicable</td>
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<tr>
<td>HIST 16</td>
<td>The Wild West - A History, 1800-1899</td>
<td>3</td>
<td>Degree Applicable</td>
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### Course Descriptions

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<th>Code</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>HIST 19 — History of Mexico</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td></td>
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<td>54 hours lecture</td>
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<td></td>
<td>The cultural and social history of the Mexican people from pre-Colombian civilization to modern Mexico.</td>
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<tr>
<td>HIST 30 — History of the African American</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>In the general framework of the U.S. historical process, surveys the history of African Americans from the African genesis to 1865, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.</td>
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<tr>
<td>HIST 31 — History of the African American</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>In the general framework of the U.S. historical process, surveys the history of African Americans from the Reconstruction period to the present, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformation that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.</td>
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<tr>
<td>HIST 35 — History of Africa</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>Surveys African civilization with major emphasis placed upon political, social and cultural developments. African history will be traced from prehistoric times through colonialism and the emergence of independent African states in the 21st Century. The American relationship with Africa will be considered.</td>
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<td>HIST 36 — Women in American History - Beyond</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>the Stereotypes</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>An introductory course placing women's experience within the context of the major themes of American history, addressing issues and debates related to gender construction and identity. Political, economic, and social currents as well as cross cultural dynamics are critically examined and analyzed as gender theory and practices in the context of ethnicity, class, and nation. This course satisfies the requirement for a course in American history including the study of American institutions and ideals, as required by Title 5 of the California Administrative Code.</td>
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<tr>
<td>HIST 39 — California History</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>The social, intellectual, economic, and political development of California and the Pacific Coast from earliest times to the present.</td>
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<tr>
<td>HIST 40 — History of the Mexican American</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>A survey of United States history from colonial times to the present with a special emphasis on the role of La Raza (Hispanics) in the development of the nation. Satisfies the requirement for a course in American History, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code.</td>
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<tr>
<td>HIST 41 — History of the Native Americans</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>Survey of the history of the United States from Colonial times to the present with a special emphasis on the role of Native Americans. Examines the role Euro-American social, political, and economic movements play in the Native American experience and the mutual relationships generated through these factors. Critically analyzes how the Native American narrative is woven into the fabric of U.S. history and is an essential component of the complete American story.</td>
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<tr>
<td>HIST 42 — History of Native Americans</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to a greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that efficiencies are enhanced.</td>
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<tr>
<td>HT  1 — Introduction to Histotechnology</td>
<td>1 Unit</td>
<td>Degree Applicable</td>
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<td></td>
<td></td>
<td></td>
<td>18 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>An overview of the role of histotechnicians in preparation and analysis of tissues samples for diagnostic and research purposes. Introduction to Internet resources, support organizations and periodical references for histotechnicians, as well as regulatory agencies. Students will set up an educational plan and portfolio to be used throughout the remainder of the program.</td>
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<tr>
<td>HT  2 — Scientific Basics for Histologic Technicians</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>Defines all aspects of general laboratory issues including general laboratory protocols (GLPs), safety, ethics, and terminology relative to the preparation of tissue samples.</td>
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<tr>
<td>HT  3 — Histology</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td></td>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>Practical applications and skill-building in tissue fixation, processing, embedding, sectioning, hematoxylin-eosin staining, and microorganism staining. Quality control as it relates to routine histotechnical and equipment.</td>
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<tr>
<td>HT  4 — Histotechnology</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>Special stains for carbohydrates, amyloid, connective tissues, muscle and nervous tissues, including silver stains. Introduction to immunostains, in situ hybridization and microarraying techniques. Provides the opportunity to gain proficiency in skills acquired in HT 12, Beginning Histotechniques.</td>
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<tr>
<td>HT  5 — Histotechnicians</td>
<td>5 Units</td>
<td>Degree Applicable</td>
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<td>108 hours lab</td>
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<td>Prerequisite: HT 12</td>
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<td>Advisory: MICR 22</td>
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<td>Practical applications and skill-building in tissue fixation, processing, embedding, sectioning, hematoxylin-eosin staining, and microorganism staining. Quality control as it relates to routine histotechnical and equipment.</td>
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<tr>
<td>HT  6 — Histo/Immunohistochemistry</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: HT 12</td>
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<td>Special stains for carbohydrates, amyloid, connective tissues, muscle and nervous tissues, including silver stains. Introduction to immunostains, in situ hybridization and microarraying techniques. Provides the opportunity to gain proficiency in skills acquired in HT 12, Beginning Histotechniques.</td>
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### HISTOTECHNOLOGY

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<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
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<tr>
<td>HT  2 — Scientific Basics for Histologic Technicians</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>HT  3 — Histology</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
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<td>Practical applications and skill-building in tissue fixation, processing, embedding, sectioning, hematoxylin-eosin staining, and microorganism staining. Quality control as it relates to routine histotechnical and equipment.</td>
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<td>HT  4 — Histotechnology</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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### HOSPITALITY AND RESTAURANT MANAGEMENT

**HRM 51 — Introduction to Hospitality** 3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: Eligibility for ENGL 68

Brief review of the historical development of the hospitality industry; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.

**HRM 52 — Food Safety and Sanitation** 1.5 Units

Degree Applicable, CSU

27 hours lecture

Prerequisite: Eligibility for ENGL 68

Basic principles of sanitation and safety in the food service industry. Emphasis on the role of management in design, implementation and training to establish an effective Hazard Analysis Critical Control Point (HACCP) system. Students will have the opportunity to earn the National Restaurant Association's ServSafe Certificate upon completion of the course.

**HRM 53 — Dining Room Service Management** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: ENGL 68

Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed.

**HRM 54 — Basic Cooking Techniques** 3 Units

Degree Applicable, CSU

36 hours lecture

54 hours lab

Prerequisites: HT 12 and compliance with Work Experience regulations as designated in the College Catalog

Provides instruction on commercial and domestic cooking. Basic cooking and food preparation, nutrition, and food safety concepts are covered.

**HRM 55 — Restaurant Purchasing** 3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: HRM 51

Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

**HRM 56 — Management of Hospitality Personnel and Operations** 3 Units

Degree Applicable, CSU

54 hours lecture

Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Application of basic management concepts and techniques necessary to achieve objectives in the management of operations and human resources in restaurant and hospitality businesses including analysis of hospitality workplace; the manager's responsibilities in training, coaching, and performance appraisal of employees; decision making, leadership, and planning.

**HRM 57 — Restaurant Cost Control** 3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: HRM 51 (May have been taken previously)

Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

**HRM 58 — Menu Planning** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu and the demographics of the area. Analysis of menus with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.

**HRM 59 — Introduction to Hospitality** 3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: Eligibility for ENGL 68

Brief review of the historical development of the hospitality industry; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.

**HRM 60 — Restaurant Purchasing** 3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: HRM 51

Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

**HRM 61 — Menu Planning** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu and the demographics of the area. Analysis of menus with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.

**HRM 62 — Catering** 3 Units

Degree Applicable, CSU

54 hours lecture

Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to combine menu with price. Contracting outside vendors, problem solving and avoiding common problems before they occur.

**HRM 63 — Hospitality Law** 3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: BUSA 12 or MATH 51

Introduction to the legal aspects of the hospitality industry. Emphasis is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 64 — Hospitality Financial Accounting** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 65 — Hospitality Financial Accounting I** 3 Units

Degree Applicable, CSU

54 hours lecture

Prerequisite: BUSA 12 or MATH 51

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 66 — Hospitality Financial Accounting II** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 67 — Hospitality Financial Accounting III** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 68 — Hospitality Financial Accounting IV** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 69 — Hospitality Financial Accounting V** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 70 — Introduction to Lodging** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 91

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 71 — Hotel Management** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 91

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 72 — Hotel Management I** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 91

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 73 — Hotel Management II** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 91

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 74 — Hotel Management III** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 91

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 75 — Hotel Management IV** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 91

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.

**HRM 76 — Hotel Management V** 3 Units

Degree Applicable, CSU

54 hours lecture

Advisory: HRM 91

Introduction to the principles of accounting specifically for the hospitality business. Focus is on understanding the Uniform System of Accounting to the hospitality industry. Students will discuss previous cases and decide the fates of fctional litigations as a preventive approach to problems that can occur.
### COURSE DESCRIPTIONS

#### HUMANITIES

**HUMA 1 — The Humanities**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
The interdisciplinary study of the artistic, musical, literary, and philosophical developments and achievements of women and men in western society from the ancient Middle East to the present. Emphasizes creating an awareness of human expression as it occurs in a historical and philosophical context.

#### INSPECTION AND ESTIMATING, BUILDING

**INSP 17 — Legal Aspects of Construction**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
(May be taken for option of letter grade or Pass/No Pass)  
Advisory: INSP 70 taken prior or concurrently or equivalent experience  
Fundamentals of the legal aspects of the construction industry involving homeowner, contractor and builder/developer. Includes codes, licensing, bonds, and lien laws.

**INSP 67 — Reading Construction Drawings**  
3 Units  
Degree Applicable  
54 hours lecture  
Fundamentals of reading construction drawings as related to architecture, construction, interior design, and related fields.

**INSP 70 — Elements of Construction**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Fundamentals of construction processes, terminology and procedures. Provides an overview of the construction industry to those who may have an interest in the construction industry and related fields.

**INSP 71 — Construction Estimating**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Basics of bidding procedures and interrelationship of documents and estimating. Detailed calculation of cost based on the amount of required building materials using actual working drawings, estimating forms, and cost data courses.

**INSP 87 — Fundamentals of Construction Inspection**  
3 Units  
Degree Applicable  
54 hours lecture  
Advisory: Completion of a curriculum in building construction or equivalent experience  
Construction inspection of light frame wood construction and steel structures. Topics include vertical and horizontal loads, stress analysis, framing and structural standards of lumber and steel, metallurgy and welding.

#### INTERIOR DESIGN

**ID 100 — Fundamentals of Interior Design**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. Selection of all materials and products used in interior environments will be emphasized for the functional aesthetic quality. (Recommend concurrent enrollment in ID 105)

**ID 105 — Interior Design Studio I**  
2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Concurrent: ID 100 (may have been taken previously)  
Studio course designed to apply concepts and theories presented in the lecture course, ID 100. It is recommended that this course be taken concurrently with the lecture class. Emphasis is placed on design process in developing solutions for design projects.

**ID 120 — Interior Design Careers**  
2 Units  
Degree Applicable, CSU  
36 hours lecture  
Advisory: Eligibility for ENGL 68  
The application of programming theory and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized in the studio.

**ID 130 — Applied Color and Design Theory**  
4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Advisory: ID 130 and ID 170  
Prerequisite: ID 105  
The fundamentals of lighting, design, theory and application including design theory and application. Utilization of tools, materials, and equipment to develop technical skills applicable to interior, architectural and other related fields of design. Exploration of cultural heritage and psychological implication of design.

**ID 150 — Interior Materials and Products**  
4 Units  
Degree Applicable, CSU  
72 hours lecture  
Advisory: ID 100  
Prerequisite: ID 100  
Analysis, application, and evaluation of products and materials used in Interior Design. Includes interior textiles, furnishings and finish materials and products.

**ID 170 — Space Planning**  
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Advisory: ID 100 or ID 130 or ARCH 11 or ARCH 21  
The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage from antiquity through the 19th Century in France. Emphasis is placed on style development as it relates to social, economic and political influences.

**ID 180 — History of Interior Architecture and Furnishings I**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: ID 180 and Eligibility for ENGL 68  
The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage from the Sixteenth Century England and America and analyzes the influences and changes in design to the present. Emphasis is placed on style development as it relates to social, economic and political forces.

**ID 210 — Fundamentals of Lighting**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: ID 100, ARCH 11 or equivalent experience  
The fundamentals of lighting, design, theory and application including the history and vocabulary of lighting; how light affects color and vision, incandescent and fluorescent lamps, lighting techniques for interior designers, codes, and energy efficient lighting practices.

**ID 215 — Interior Design Studio II**  
2 Units  
Degree Applicable, CSU  
18 hours lecture  
54 hours lab  
Prerequisite: ID 105  
Advisory: ID 130 and ID 170  
Develop, analyze and apply design concepts to interior environments. Universal design, “green” design, space planning, lighting systems, interior components, architectural elements and specification writing will be integrated into research projects emphasizing problem solving approach.
### Course Descriptions

<table>
<thead>
<tr>
<th>ID</th>
<th>Course Description</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 230 — Business and Professional Practice</td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td></td>
</tr>
</tbody>
</table>
|      | 54 hours lecture  
**Prerequisite:** ID 100  
**Advisory:** ID 120  
The business and professional management of an interior design practice including legal issues, project management and business practices. |       |                  |
| ID 240A — Interior Design Internship Seminar | 1 Unit | Degree Applicable |
|      | (May be taken two times for credit)  
18 hours lecture  
**Corequisite:** ID 240B and ID 120 (may have been taken previously)  
**Advisory:** ID 170 (may have been taken previously)  
Students share and critique experiences, emphasizing professionalism and problem solving techniques related to internship experience (ID 240B). Students who repeat this course will have additional learning experiences by being placed in a different work site. |       |                  |
| ID 240B — Interior Design Internship | 1 Unit | Degree Applicable |
|      | (May be taken two times for credit)  
(May be taken for Pass/No Pass only)  
75 hours lab  
**Corequisite:** ID 240A  
Supervised internship related to classroom-based learning at a work site related to Interior Design. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Internship placement is not guaranteed, but assistance is provided by Interior Design faculty. Students who repeat this course will improve skills through further instruction and practice. |       |                  |
| ID 240C — Interior Design/Kitchen and Bath Internship | 2 Units | Degree Applicable |
|      | (May be taken two times for credit)  
150 hours lab  
**Corequisite:** ID 240B (may have been taken previously)  
Supervised internship related to classroom-based learning at a National Kitchen and Bath member work site. A minimum of 75 paid of 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Internship placement is not guaranteed, but assistance is provided by Interior Design faculty. Students who repeat this course will improve skills through further instruction and practice. |       |                  |
| ID 250 — Codes and Specifications for Interior Design | 2 Units | Degree Applicable, CSU |
|      | 36 hours lecture  
**Advisory:** ID 215  
Explores local, state, and federal regulations, codes and specifications concerning life-safety issues, ADA, and universal design requirements relative to residential and contract design. Attention is given to performance, health safety, and universal design for estimating and specifying interior materials and products. |       |                  |
| ID 260 — Rendering and Rapid Visualization | 2 Units | Degree Applicable, CSU |
|      | 18 hours lecture  
54 hours lab  
Application of the methods, techniques and tools used in illustrating interior spaces and products with an emphasis on rapid production. |       |                  |
| ID 265 — Interior Design Studio III - Kitchens | 2 Units | Degree Applicable |
|      | 18 hours lecture  
54 hours lab  
Analysis and application of the design process to space planning, materials and finish choices, codes application, and selection of specialized equipment unique to the planning of kitchens. Design solutions for kitchens will be developed in the studio. |       |                  |
| ID 275 — Interior Design Studio IV - Bath Design | 2 Units | Degree Applicable, CSU |
|      | 18 hours lecture  
54 hours lab  
Analysis and application of the design process for space planning, specifications of materials and equipment for bathrooms. |       |                  |
| ITAL 1 — Elementary Italian | 4 Units | Degree Applicable, CSU, UC |
|      | (CAN ITAL02)  
72 hours lecture  
**Prerequisite:** ITAL 0 or equivalent  
Intended for students without previous exposure to Italian. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Italian culture. Begins to develop the ability to converse, read, and write in Italian. |       |                  |
| ITAL 2 — Continuing Elementary Italian | 4 Units | Degree Applicable, CSU, UC |
|      | (CAN ITAL04)  
72 hours lecture  
**Prerequisite:** ITAL 1 or equivalent  
Further development of conversational, reading and writing skills in Italian with special emphasis on verbs, grammar and extension of vocabulary. Further study of Italian culture. |       |                  |
| ITAL 3 — Intermediate Italian | 4 Units | Degree Applicable, CSU, UC |
|      | (CAN ITAL08)  
72 hours lecture  
**Prerequisite:** ITAL 2 or equivalent  
Development of intermediate Italian language skills and their use as tools in exploring Italian civilization. Further study and review of grammar, exercises in word building, derivation and the extension of the active and recognition vocabularies. Extensive exposure to Italian culture, such as film, music and history. |       |                  |
| ITAL 4 — Continuing Intermediate Italian | 4 Units | Degree Applicable, CSU, UC |
|      | (CAN ITAL10)  
72 hours lecture  
**Prerequisite:** ITAL 3 or equivalent  
Further practice in speaking and writing of intermediate Italian. Collateral reading in Italian. Extensive exposure to cultural elements from Italy such as art, music, film and history. |       |                  |
| ITAL 5 — Advanced Italian | 4 Units | Degree Applicable, CSU, UC |
|      | (May be taken for option of letter grade or Pass/No Pass)  
72 hours lecture  
**Prerequisite:** ITAL 4 or equivalent  
Emphasis is placed on increased facility to read and write advanced Italian. Cultural insights are developed through the study of various Italian literary types. |       |                  |
| ITAL 6 — Continuing Advanced Italian | 4 Units | Degree Applicable, CSU, UC |
|      | (May be taken for option of letter grade or Pass/No Pass)  
72 hours lecture  
**Prerequisite:** ITAL 5 or equivalent  
Further development of advanced reading, writing, and speaking in Italian. Further development of conversational, reading and writing skills in Italian with special emphasis on verbs, grammar and extension of vocabulary. Further study of Italian culture. |       |                  |

**ITALIAN**
### JAPANESE

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
<th>Prerequisite</th>
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<th>Units</th>
<th>Prerequisite</th>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ITAL 53 — Continuing Conversational Italian</strong></td>
<td>3 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td><strong>JAPN 1 — Elementary Japanese</strong></td>
<td>4 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>72 hours lecture</td>
<td><strong>JAPN 2 — Continuing Elementary Japanese</strong></td>
<td>4 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>72 hours lecture</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>72 hours lecture</td>
<td>Prerequisite: ITAL 3 or ITAL 52 or equivalent</td>
<td>(CAN JAPN08) CAN JAPN04 A</td>
<td>72 hours lecture</td>
<td>Prerequisite: JAPN 2 or equivalent</td>
<td>CAN JAPN04 B</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td><strong>JAPN 4 — Continuing Intermediate Japanese</strong></td>
<td>4 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td><strong>JAPN 5 — Advanced Japanese</strong></td>
<td>4 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Degree Applicable, CSU, UC</td>
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</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>72 hours lecture</td>
<td><strong>JAPN 6 — Advanced Japanese</strong></td>
<td>4 Units</td>
<td>72 hours lecture</td>
<td><strong>JAPN 7 — Advanced Japanese</strong></td>
<td>4 Units</td>
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</tr>
</tbody>
</table>

### JOURNALISM

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
<th>Prerequisite</th>
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<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JOUR 100 — Mass Media and Society</strong></td>
<td>3 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td><strong>JOUR 101 — Beginning News Writing</strong></td>
<td>3 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td><strong>JOUR 102 — Intermediate News Writing</strong></td>
<td>3 Units</td>
<td>54 hours lecture</td>
<td><strong>JOUR 104 — Newspaper Layout and Design</strong></td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>Prerequisite: ENGL 1A</td>
<td>Development of intermediate news reporting techniques combined with the composition of complex journalistic writing forms.</td>
<td>Development of intermediate news reporting techniques combined with the composition of complex journalistic writing forms.</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Degree Applicable</td>
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<tr>
<td>Survey of the mass media and the interrelationships of media with economics, technology, law and ethics and such social issues as gender and cultural diversity.</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td><strong>JOUR 103 — Working on the Newspaper</strong></td>
<td>3 Units</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Degree Applicable</td>
<td></td>
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</tr>
<tr>
<td>18 hours lecture</td>
<td><strong>JOUR 105 — Editor Training</strong></td>
<td>1 Unit</td>
<td>54 hours lecture</td>
<td>Degree Applicable</td>
<td></td>
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</tr>
<tr>
<td>(May be taken four times for credit)</td>
<td>Development of leadership skills in a journalistic setting.</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Advisory: JOUR 101 or JOUR 1A</td>
<td></td>
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<tr>
<td>108 hours lab</td>
<td>Stresses leadership skills in a journalistic setting using the student newspaper as a practical laboratory. Designed for students selected to serve as editors or managers of the paper. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Stresses leadership skills in a journalistic setting using the student newspaper as a practical laboratory. Designed for students selected to serve as editors or managers of the paper. Students who repeat this course will improve skills through further instruction and practice.</td>
<td>Degree Applicable</td>
<td></td>
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<tbody>
<tr>
<td>JOUR 106</td>
<td>Introduction to Visual Journalism</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>JOUR 107</td>
<td>Race, Culture, Sex, and Mass Media Images</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>JOUR 108</td>
<td>Writing for Public Relations</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>JOUR 109</td>
<td>Public Relations Internship</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>JOUR 110</td>
<td>Magazine Writing and Production</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>LATN 1</td>
<td>Elementary Latin</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>LATN 2</td>
<td>Continuing Elementary Latin</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>LEAD 55</td>
<td>Exploring Leadership</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>LERN 48</td>
<td>Basic Math Skills Review</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>LERN 49</td>
<td>Math Skills Review</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
</tbody>
</table>

### Course Descriptions

#### JOUR 106 — Introduction to Visual Journalism
- 3 Units
- Degree Applicable, CSU
- (May be taken two times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 54 hours lecture
- 36 hours lab
- Corequisite: COMP 60 (may have been taken previously)
- Photojournalism assignments using still, digital, and video cameras for offset printing (newspaper, magazine, etc.) and digital Web presentations. Basics of photojournalism, digital camera operation, shooting techniques, photo-editing software, cutline writing, video and audio production and editing, and Web homepage design production. Students who repeat this course will improve skills through further instruction and practice.

#### JOUR 107 — Race, Culture, Sex, and Mass Media Images
- 3 Units
- Degree Applicable, CSU
- (May be taken for option of letter grade or Pass/No Pass)
- 54 hours lecture
- Advisory: ENGL 1A
- Studies the role mass media plays in the social, political, and economic integration of minorities, cultures, women, and gays and lesbians into American society. Examines ways that mass media impacts public attitudes and behaviors.

#### JOUR 108 — Writing for Public Relations
- 3 Units
- Degree Applicable, CSU
- (May be taken for option of letter grade or Pass/No Pass)
- 54 hours lecture
- Prerequisite: JOUR 101 or JOUR 1A
- An introduction to public relations writing including news releases, fact sheets, feature stories, institutional publications, and newsletters. The relationships between public relations, the mass media, and society will be explored.

#### JOUR 109 — Public Relations Internship
- 3 Units
- Degree Applicable
- (May be taken two times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 225 to 300 hours lab
- Advisory: JOUR 108 or JOUR 8
- Field work in public relations. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

#### JOUR 110 — Magazine Writing and Production
- 3 Units
- Degree Applicable
- (May be taken for option of letter grade or Pass/No Pass)
- 36 hours lecture
- 54 hours lab
- Prerequisite: JOUR 101 or JOUR 1A
- Production of a student-run magazine in a professional setting. Activities may include fiction and nonfiction writing, editing, ethics, interviewing, photography, art and layout. Overview of the magazine industry and markets explored.

#### LATN 1 — Elementary Latin
- 4 Units
- Degree Applicable, CSU
- (May be taken for option of letter grade or Pass/No Pass)
- 72 hours lecture
- Advisory: Eligibility for READ 90 or eligibility for AMLA 33R
- This course is designed for students with little or no prior experience in Latin. Emphasizes the ability to read basic Latin as it was written during the early, classical, and post-classical periods. Includes the study of vocabulary, grammar, Roman culture, and the history of the Latin language.

#### LATN 2 — Continuing Elementary Latin
- 4 Units
- Degree Applicable, CSU
- (May be taken for option of letter grade or Pass/No Pass)
- 72 hours lecture
- Prerequisite: LATN 1
- Advisory: Eligibility for READ 90 or eligibility for AMLA 33R
- Second semester of coursework for students with prior coursework in Latin. Daily practice in vocabulary, grammar, and reading. Explores Roman history and culture.

### LEAD 55 — Exploring Leadership
- 3 Units
- Degree Applicable, CSU
- 54 hours lecture
- Designed to introduce students to the fundamental elements of leadership. Explores leadership theories and models, values and beliefs. Develops a personal philosophy of leadership that includes an understanding of self, others and community. Prepares students for leadership roles in college and community settings.

### LERN 48 — Basic Math Skills Review
- 3 Units
- Not Degree Applicable
- (May be taken for Pass/No Pass only)
- 54 hours lecture
- 24 hours lab
- Essential math fundamentals: multiplication tables, adding, subtracting, multiplying and dividing whole numbers and fractions. Emphasis on math learning strategies such as organization and math anxiety.

### LERN 49 — Math Skills Review
- 3 Units
- Not Degree Applicable
- (May be taken for Pass/No Pass only)
- 54 hours lecture
- 24 hours lab
- Essential math fundamentals: multiplication tables, adding, subtracting, multiplying and dividing whole numbers and fractions. Emphasis on math learning strategies such as organization and math anxiety.
LERN 62 — Skills Development Laboratory 2 Units
(May be taken two times for credit)
(May be taken for Pass/No Pass only)
108 hours lab
Offers individualized material in the following subjects: reading comprehension, reading acceleration, vocabulary, spelling, elementary math, algebra review, English grammar, study techniques (note-taking, test-preparation, test-taking). Students may register for two units through the first half of the term. Two units require a total expenditure of 96 hours in class. Students who repeat will achieve further improvement in the skills previously tested or work on the development of other skills.

LIBRARY AND INSTRUCTIONAL MEDIA

LIBR 1A — Introduction to Library Research 1 Unit
(May be taken for Pass/No Pass only)
18 hours lecture
Advisory: Eligibility for ENGL 68
Basic research skills for lifelong information competency necessary for independent research and critical thinking. Topics include finding, evaluating and documenting information using traditional and electronic resources, including the Internet.

LIBR 1B — Using Electronic Resources 1 Unit
(May be taken for Pass/No Pass only)
18 hours lecture
Advisory: Eligibility for ENGL 68
Research skills using electronic resources for lifelong information competency. Topics include databases, electronic books, search strategies, citation, copyright, and plagiarism.

LITERATURE

LIT 1 — Early American Literature 3 Units
(CAN ENGL14) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
American literature of the Seventeenth, Eighteenth, and Nineteenth Centuries. Emphasizes writers who created an American literary identity and shaped America's cultural mythology.

LIT 2 — Modern American Literature 3 Units
(CAN ENGL16) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Emphasizes characteristic 20th century concerns such as identity and cultural diversity, the American Dream, the effects of industrial and technological development, human isolation and alienation, and examines the impact of these concerns on American literary form and on America's cultural mythology.

LIT 3 — Multicultural American Literature 3 Units
54 hours lecture
Analyzes the representative contributions of three or four diverse groups to American literature and culture. Covering a wide spectrum of historical periods and literary genres, the course will focus on issues of ethnic identity, assimilation, acculturation, cultural pluralism, and family and gender roles in order to heighten awareness of diversity in America. Representative literature groups may include African American, Hispanic American, Native American, Asian American, Gay and Lesbian American, disability groups and religious groups.

LIT 6A — Survey of English Literature (CAN ENGL08) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
A chronological study of major works from Beowulf and the Anglo-Saxon period to the mid-18th century.

LIT 6B — Survey of English Literature (CAN ENGL10) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
A chronological study of major works from the Romantic Era through the Victorian and Modern periods to contemporary texts.

LIT 10 — Survey of Shakespeare (CAN ENGL20) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
A survey of Shakespeare's histories, tragedies, comedies, and selected sonnets with their historical and literary context, emphasizing their relevance to contemporary culture and values.

LIT 11A — World Literature 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
An introductory survey course of European literature (17th to the 20th centuries) that explores the significant and representative literary works of the major authors of these periods. Emphasis on the aesthetic, social and philosophical values and ideas that influenced these authors and the development of 20th century thought.

LIT 11B — World Literature 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
An introductory survey course of European literature (17th to the 20th centuries) that explores the significant and representative literary works of the major authors of these periods. Emphasis on the aesthetic, social and philosophical values and ideas that influenced these authors and the development of 20th century thought.

LIT 14 — Introduction to Modern Poetry 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Examines the significant poetry of England and America in the 20th century, with the major emphasis on contemporary poets.

LIT 15 — Introduction to Cinema 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
Explores the broad range of human experience inherent in the study of film as art. Using a number of films drawn from various genres, examines film from historical, social, technological and aesthetic perspectives.
<table>
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<tr>
<td>LIT 20</td>
<td>African American Literature</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture Prerequisite: ENGL 1A Surveys Eighteenth through Twenty-first Century writings of African Americans. Emphasizes the oral tradition, development of protest literature and major modern and contemporary writers such as Wright, Ellison, Baldwin, Walker, and Morrison.</td>
</tr>
<tr>
<td>LIT 25</td>
<td>Contemporary Mexican American Literature</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture Prerequisite: ENGL 1A Issues of contemporary Mexican-American literature, drama, and film. Includes discussion of the roles played by gender, religion, language, education, family, ethnic identity, and class. Also addresses application of literary tools such as symbolism, language, and theme.</td>
</tr>
<tr>
<td>LIT 33</td>
<td>Images of Women in Literature</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture Prerequisite: ENGL 1A Survey of selected pieces of literature, poetry, short stories and novels which reflect significant ideas and attitudes about women. The Women's Rights Movement will also be explored through an intensive examination of the changing images of women in society as portrayed by both male and female authors. Some contemporary critical material will be used.</td>
</tr>
<tr>
<td>LIT 35</td>
<td>Science Fiction and Fantasy Survey</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture Prerequisite: ENGL 1A A chronological survey of science (or speculative) fiction and fantasy from earliest classics to the present day. Examines early attempts by Aristophanes, Swift, and the &quot;fathers&quot; - H.G. Wells and Verne. Will emphasize contemporary writers such as Bradbury, Heinlein, Vonnegut, Ellison, Sturgeon, Asimov, and Clarke. Definitions and quality standards will be evolved.</td>
</tr>
<tr>
<td>LIT 36</td>
<td>Introduction to Mythology</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture Prerequisite: ENGL 1A A survey of major myths, including creation, fertility, and hero myths. Explores theories and approaches to these archetypal stories and the ways that they reflect and shape culture. Emphasis is on classical myths, but myths from around the world may be included.</td>
</tr>
<tr>
<td>LIT 40</td>
<td>Children's Literature</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture Prerequisite: ENGL 1A Designed to give the student a knowledge and an appreciation of children's books, both fiction and non-fiction, from around the world. Special emphasis is given to analysis and interpretation of thematic and literary elements, suitability for age group, quality of writing and illustration, award-winning books, and issues related to cultural patterns, bias and persuasiveness.</td>
</tr>
<tr>
<td>LIT 46</td>
<td>The Bible as Literature: Old Testament</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture Prerequisite: ENGL 1A Considers the Bible as a collection of literary texts and applies the principles of literary historical analysis to the Old Testament.</td>
</tr>
<tr>
<td>LIT 47</td>
<td>The Bible as Literature: New Testament</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture Prerequisite: ENGL 1A Considers the Bible as a collection of literary texts and applies the principles of literary and historical analysis to selected books of the Old Testament and the New Testament.</td>
</tr>
</tbody>
</table>

### MANUFACTURING TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines.</td>
</tr>
<tr>
<td>MFG 12</td>
<td>Manufacturing Processes II</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Advisory: MFG 11 The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallurgy, heat treatment, precision grinding, and basic tool design.</td>
</tr>
<tr>
<td>MFG 15</td>
<td>AutoCAD 2D</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DXF and/or IGES files and then transferred to various CAD/CAM systems.</td>
</tr>
<tr>
<td>MFG 17</td>
<td>3-D CAD Mechanical Modeling</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Advisory: MFG 15 Development of three dimensional mechanical models using AutoCAD. Analysis and manipulation of mechanical solid models and industrial primitives as related to their interaction with Computer Aided Machines (CAM) and Computer Integrated Manufacturing (CIM) systems.</td>
</tr>
<tr>
<td>MFG 19</td>
<td>Parametric Solid Modeling for Manufacturing</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Advisory: MFG 17 Development of feature-based solid modeling on a computer using current software used in industry. Transfer of solid model to a CAM system for CNC code production. Includes production of a manufactured part using CNC mill.</td>
</tr>
<tr>
<td>MFG 25</td>
<td>Advanced Parametric Solid Modeling for Manufacturing</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Advisory: MFG 19 or MFG 27 taken previously Advanced instruction in concepts, practice, and development of feature-based solid modeling using software currently used in the manufacturing industry. Advanced features of solid modeling global variables, 3-D helical paths generation, surface cut, table-driven parts, and advanced sheet metal, and animation.</td>
</tr>
<tr>
<td>MFG 27</td>
<td>Autodesk Inventor</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Advisory: MFG 19 Advanced concepts, practice, and development of feature-based solid modeling using AutoDesk Inventor. Solid modeling parts creation using sketched, placed, and work features. Assembly techniques, working drawings, and the transfer of a solid model to a CAM system.</td>
</tr>
<tr>
<td>MFG 38</td>
<td>MasterCAM I</td>
<td>2</td>
<td>Degree Applicable, CSU 18 hours lecture 54 hours lab Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes.</td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 38B</td>
<td>Advanced MasterCAM</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>MFG 39</td>
<td>SurfCAM I</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>MFG 39B</td>
<td>SurfCAM II</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>MFG 50</td>
<td>Pre-Algebra</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>MATH 10</td>
<td>Math Enhancement</td>
<td>0</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>MATH 50</td>
<td>Pre-Algebra</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>MATH 51</td>
<td>Elementary Algebra</td>
<td>4</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>MATH 61</td>
<td>Plane Geometry</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

**MATH 10 — Math Enhancement**

(May be taken four times for credit)

18 hours activity

Linked with a corresponding math lecture section, this course provides hands-on activities and mathematical applications designed to enhance student success and abilities in the linked course. Supplemental learning activities such as computer projects, drill and practice, study skills development, group work and student presentations.

**MATH 50 — Pre-Algebra**

54 hours lecture

Prerequisite: Credit in LERN 49 or qualifying score on current department placement test

Fundamental principles of mathematics designed to ease the transition from arithmetic to algebra. Concepts, computational skills, thinking skills and problem-solving skills are balanced to build proficiency and mastery.

**MATH 51 — Elementary Algebra**

72 hours lecture

Prerequisite: MATH 50 or qualifying score on current department placement test

Basic algebra, equivalent to first year high school algebra. Includes operations with signed numbers and algebraic expressions, linear equations and inequalities; polynomial operations and factoring; rational expressions and equations; Cartesian Coordinate System, slope/graphing/ equations of lines, systems of linear equations, ratio/proportion, formulas and variation, applications, radicals and exponents, quadratic equations.

**MATH 61 — Plane Geometry**

54 hours lecture

Prerequisite: MATH 51 or MATH 51B or MATH 52 or qualifying score on current department placement test

Points, lines, polygons and circles; their relationships to each other on plane surfaces; congruence, similarity and area. Introduction to inductive, deductive and indirect reasoning. The formal proof is introduced and practiced throughout the course. Stress is placed on accuracy of statement as a background for analytical and scientific reasoning.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATH 71X — Practical Intermediate Algebra 5 Units</strong></td>
</tr>
<tr>
<td>90 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: <strong>MATH 51 or MATH 51B or qualifying score on current department placement test</strong></td>
</tr>
<tr>
<td>Intermediate Algebra for the non-calculus path. Recommended for Humanities, Social Sciences, and Applied Sciences. Recommended prerequisite for Math 100, Math 110, and Math 120. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved and functions graphed and studied; linear and nonlinear systems of equations and inequalities; conic sections; sequence, series and the binomial theorem. Application problems appear throughout the course.</td>
</tr>
</tbody>
</table>

| **MATH 71 — Intermediate Algebra 5 Units** |
| 90 hours lecture |
| Prerequisite: **MATH 51 or MATH 51B or qualifying score on current department placement test** |
| Reviews and extends concepts from elementary algebra, and introduces new content to prepare students for a variety of subsequent mathematics courses. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved and functions graphed and studied; linear and nonlinear systems of equations and inequalities; conic sections; sequence, series and the binomial theorem. Application problems appear throughout the course. |

| **MATH 79A — Intermediate Algebra - First Half 3 Units** |
| 54 hours lecture |
| Prerequisite: **MATH 51 or MATH 51B or qualifying score on current department placement test** |
| Algebra of functions, polynomials, and rational expressions; functions and their graphs; systems of equations with two or three variables; absolute value and compound inequalities. Covers some MATH 71 topics at a slower pace. A student must complete both MATH 71A and 71B to have taken the equivalent of MATH 71, Intermediate Algebra. |

| **MATH 71B — Intermediate Algebra - Second Half 3 Units** |
| 54 hours lecture |
| Prerequisite: **MATH 71A** |
| Quadratic equations and graphs; exponents, radicals and logarithms; conic sections. Covers remaining MATH 71 topics at a slower pace. A student must complete both MATH 71A AND MATH 71B to have taken the equivalent of MATH 71, Intermediate Algebra. |

| **MATH 71X — Practical Intermediate Algebra 5 Units** |
| 90 hours lecture |
| Prerequisite: **MATH 51 or MATH 51B or qualifying score on current department placement test** |
| Intermediate Algebra for the non-calculus path. Recommended for Humanities, Social Sciences, and Applied Sciences. Recommended prerequisite for Math 100, Math 110, and Math 120. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved, and real-world phenomena are modeled using least-squares methods; functions graphed and analyzed; linear and nonlinear systems of equations and inequalities; sequences, series, and probabilities; data gathering instruments are used to sample data for curve fitting. |

| **MATH 76 — Strategies for Math Success 1 Unit** |
| Not Degree Applicable |
| (May be taken for Pass/No Pass only) |
| 18 hours lecture |
| Learning tools, plans and proper perspectives for math learning improvement. Use of natural intelligence strengths to simplify and optimize your mathematical educational experience. Overcome test anxiety and enhance testing abilities. Course is appropriate for all levels of mathematics students. |

| **MATH 99 — Special Projects in Mathematics 2 Units** |
| Degree Applicable, CSU |
| (May be taken four times for credit) |
| 36 hours lecture |
| In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students who repeat this course will improve skills through further instruction and practice. |

| **MATH 100 — Survey of College Mathematics 3 Units** |
| Degree Applicable, CSU, UC |
| (CAN MATH02) |
| 54 hours lecture |
| Prerequisite: **MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test** |
| Topics include linear programming, matrix theory, probability, statistics, stochastic processes, Markov chains, and math of finance. |

| **MATH 106 — Strategies for Math Success 1 Unit** |
| Not Degree Applicable |
| (May be taken for Pass/No Pass only) |
| 18 hours lecture |
| Learning tools, plans and proper perspectives for math learning improvement. Use of natural intelligence strengths to simplify and optimize your mathematical educational experience. Overcome test anxiety and enhance testing abilities. Course is appropriate for all levels of mathematics students. |

| **MATH 108 — Statistics for Business 4 Units** |
| Degree Applicable, CSU, UC |
| (CAN MATH12) |
| 54 hours lecture |
| Prerequisite: **MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test** |
| Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance. Credit not given to persons with credit in MATH 180 or equivalent. |

| **MATH 110 — Elementary Statistics 3 Units** |
| Degree Applicable, CSU, UC |
| (CAN STAT02) |
| 54 hours lecture |
| Prerequisite: **MATH 71 or MATH 71X or MATH 71B or qualifying passing score on current department placement test and acceptance into the Honors Program** |
| Emphasis is placed on the understanding of statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance. An honors course designed to provide an enriched experience. Students may not receive credit for both MATH 110 and MATH 110H. |

| **MATH 120 — Finite Mathematics 3 Units** |
| Degree Applicable, CSU, UC |
| (CAN MATH10) |
| 72 hours lecture |
| Prerequisite: **MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test** |
| A college-level course in algebra. A study of real numbers and sets, algebraic functions and relations, radicals and exponents, linear and quadratic equalities and inequalities, exponential and logarithmic functions, systems of linear and quadratic equations, complex numbers, series, theory of equations, mathematical induction and binomial formula. |

| **MATH 121 — Calculus for Business 4 Units** |
| Degree Applicable, CSU, UC |
| (CAN MATH34) |
| 72 hours lecture |
| Prerequisite: **MATH 130 or MATH 160 or qualifying score on current department placement test** |
| Calculus for business, social science, and non-science majors. Algebraic, logarithmic, and exponential functions; limits; differentiation with applications; various techniques of integration with applications; differential equations; multi variable calculus. Credit not given to persons with credit in MATH 180 or equivalent. |
Course Descriptions

MATH 150 — Trigonometry 3 Units
(CAN MATH10)
Degree Applicable, CSU
54 hours lecture
Prerequisite: MATH 71 or 71B or qualifying score on current department placement test AND Math 61 or passing score on current geometry competency test.
Trigonometry functions and inverse trigonometric functions and the graphical representations of these functions; solutions to right and oblique triangles with laws of sines and cosines; vectors; solutions to trigonometric equations; identities; polar coordinates; complex numbers and DeMoivre’s Theorem.

MATH 160 — Precalculus Mathematics 4 Units
(CAN MATH16)
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: MATH 150, or qualifying score on current department placement test.
Prepares students for the calculus sequence. Real-valued functions, including algebraic, trigonometric, exponential, and logarithmic functions. Also includes proofs, inequalities, introductory analytical geometry, series, sequences, and vectors.

MATH 180 — Calculus and Analytic Geometry 4 Units
(CAN MATH22)
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: MATH 181
Analysis of vector-valued functions of several variables, partial derivatives, differentials, the chain rule, directional derivatives and the gradient. Extrema of functions of several variables with applications. Double and triple integrals in various coordinate systems with applications. Vector fields, line integrals, work, independence of path in conservative fields. Green’s Theorem, surface integrals, flux, divergence and curl, Stokes’ Theorem, the Divergence Theorem.

MATH 245 — A Transition to Advanced Mathematics 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: MATH 181
A transition to the rigors of upper-division mathematics courses. Basic set theory and logic, relations, functions, mathematical induction, the well-ordering principle, countable and uncountable sets, the Schroder-Bernstein Theorem, the axiom of choice, Zorn’s Lemma, the Heine-Borel Theorem, the Bolzano-Weierstrass Theorem. Special emphasis on how to present and understand mathematical proofs.

MATH 285 — Linear Algebra and Differential Equations 5 Units
(CAN MATH24)
Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: MATH 181
First order ordinary differential equations, including separable, linear, homogeneous of degree zero, Bernoulli and exact with applications and numerical methods. Solutions to higher order differential equations using undetermined coefficients, variation of parameters, and power series, with applications. Solutions to linear and non-linear systems of differential equations, including numerical solutions. Matrix algebra, solutions of linear systems of equations, and determinants. Vector spaces, linear independence, basis and dimension, subspace and inner product space, including the Gram-Schmidt procedure. Linear transformations, kernel and range, eigenvalues, eigenvectors, diagonalization and symmetric matrices.

MATH 280 — Calculus and Analytic Geometry 4 Units
(CAN MATH25)
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: MATH 181
Analysis of vector-valued functions of several variables, partial derivatives, differentials, the chain rule, directional derivatives and the gradient. Extrema of functions of several variables with applications. Double and triple integrals in various coordinate systems with applications. Vector fields, line integrals, work, independence of path in conservative fields. Green’s Theorem, surface integrals, flux, divergence and curl, Stokes’ Theorem, the Divergence Theorem.

MEDICAL TERMINOLOGY

MED 90 — Medical Terminology 3 Units
Degree Applicable, CSU
54 hours lecture
Introduction to the use and meaning of the medical terminology used in various allied health fields. Relates to other allied health fields and can apply to secretarial science majors.

MENTAL HEALTH/PSYCHIATRIC TECHNICIAN

MENT 56 — Medical-Surgical Nursing for Psychiatric Technicians 9 Units
Degree Applicable
162 hours lecture
Prerequisite: Admission to the Psychiatric Technician Program Corequisite: MENT 56L
Holistic approach to assessment and intervention in the care of the medical-surgical patient. Examines physiological modes of rest and exercise, regulation, circulation, ventilation and the sensory system; medical-surgical nursing; care of the dying patient, cardiovascular problems; calculations of drug dosage and administration of oral and topical medications; study of anatomy and physiology of the human body.

MENT 56L — Clinical Experience 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
216 hours lab
Development of medical-surgical nursing skills. Application and assessment, intervention, evaluation of nursing treatment in the physiological modes of rest and exercise, regulation, nutrition, elimination, application of emergency procedures, circulation, ventilation, fluids, and electrolytes. Psychosocial aspects of care including interdependence, role function, self concept, care of aged, and cultural aspects. Application of nursing skills for those with medical-surgical problems and special needs. Calculation and administration of medications. Roy’s Adaptation Model serves as the conceptual framework.

MENT 58D — Advanced Medical-Surgical Nursing and Pharmacology for Psychiatric Technicians 4 Units
Degree Applicable
72 hours lecture
Prerequisite: MENT 56, MENT 56L
Corequisite: MENT 58L
Examines disease processes affecting body systems, etiology, required nursing care; study of drugs, standards, administration; dose calculations.
<table>
<thead>
<tr>
<th>COURSE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MENT 70L — Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical</td>
<td>1.5 Units Degree Applicable (May be taken for Pass/No Pass only) 90 hours lab Application of nursing skills to patients with medical/surgical disorders. Administration of medications.</td>
</tr>
<tr>
<td>MENT 70 — Introduction to Psychiatric Technology</td>
<td>1.5 Units Degree Applicable 27 hours lecture Prerequisite: Admission to Psychiatric Technician Program Corequisite: MENT 70L Role and function of the Psychiatric Technician; mental health theories of personality development, self-concept, role function, and interdependence; developmental disabilities theories of sensorimotor techniques, behavior modification techniques.</td>
</tr>
<tr>
<td>MENT 70L — Introduction to Psychiatric Technology Clinical Technicians</td>
<td>2 Units Degree Applicable (May be taken for Pass/No Pass only) 108 hours lab Corequisite: MENT 70 The clinical experience introduces the student to facilities within the community which serve the mental health field including both the mentally disordered and developmentally disabled.</td>
</tr>
<tr>
<td>MENT 72 — Nursing Care of the Developmentally Disabled Person</td>
<td>7 Units Degree Applicable 126 hours lecture Prerequisite: MENT 56, MENT 70 Corequisite: MENT 72L Etiology of mental retardation; develops the knowledge, skills, and attitudes necessary to safely teach and train the developmentally disabled person. Techniques of behavior modification and sensory-motor training are used, as well as the teaching of self-help skills. Examines normal development from infancy to the aged.</td>
</tr>
<tr>
<td>MENT 72L — Nursing Care of the Developmentally Disabled Person - Clinical</td>
<td>5 Units Degree Applicable (May be taken for Pass/No Pass only) 288 hours lab Corequisite: MENT 72 Application of skills needed to teach, train, and provide care for the developmentally disabled person. Calculation and administration of medication.</td>
</tr>
<tr>
<td>MENT 73L — Psychiatric Nursing for Psychiatric Technicians Clinical</td>
<td>5 Units Degree Applicable (May be taken for Pass/No Pass only) 288 hours lab Corequisite: MENT 73T Clinical instruction in the treatment of mental disabilities and substance abuse.</td>
</tr>
<tr>
<td>MENT 73T — Psychiatric Nursing for Psychiatric Technicians</td>
<td>6 Units Degree Applicable 108 hours lecture Corequisite: MENT 73L Theoretical instruction in the assessment and treatment of the mentally disabled, use of common medication, therapeutic communication, assertive language and leadership skills appropriate for the practicing Psychiatric Technician.</td>
</tr>
<tr>
<td>MENT 82 — Work Experience in Mental Health</td>
<td>2 Units Technology Degree Applicable (May be taken for Pass/No Pass only) 150 hours lab Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog, MENT 72, MENT 73T Provides majors with actual on-the-job experience in an approved work station related to classroom instruction. A minimum of 60 non-paid or 75 paid clock hours per semester is required for each unit of credit. It is recommended that the hour per week be equally distributed throughout the semester. Veterans may not use work experience courses as credit towards veterans benefits.</td>
</tr>
<tr>
<td>METO 3 — Weather and the Atmospheric Environment</td>
<td>3 Units Degree Applicable, CSU, UC 54 hours lecture An introduction to the atmosphere. Processes that influence weather and climate: seasonality, structure of the atmosphere, atmospheric stability, severe weather (hurricanes, tornadoes, thunderstorms), climate change, and the causes and effects of air pollution. Students will use a variety of weather instruments, and the course may include either field work or field trips.</td>
</tr>
<tr>
<td>METO 3L — Weather and Atmospheric Environment Laboratory</td>
<td>1 Unit Degree Applicable, CSU, UC 54 hours lab Corequisite: MENT 72 Application of skills needed to teach, train, and provide care for the developmentally disabled person. Calculation and administration of medication.</td>
</tr>
<tr>
<td>MICR 1 — Principles of Microbiology</td>
<td>5 Units Degree Applicable, CSU, UC 54 hours lecture 108 hours lab Prerequisite: CHEM 10 or CHEM 40. One year of college chemistry is recommended for all transfer majors. CHEM 50/51 sequence is preferred for biology and most pre-health professional majors. Fundamental concepts of microbiology with emphasis on bacteria. Survey of microbial classification, morphology, physiology and genetics; beneficial and pathological aspects; growth and control of microbes; virology, immunology, and host-microbe interactions. Important infectious diseases of humans are surveyed. Laboratory exercises examine microbial morphology, physiology and genetics, as well as environmental influences of microorganisms. Laboratory techniques include culturing, examining, and identifying microorganisms.</td>
</tr>
<tr>
<td>MUS 1 — Concert Music</td>
<td>1 Unit Degree Applicable, CSU (May be taken four times for credit) (May be taken for Pass/No Pass only) 18 hours lecture A concert experience in listening to recitals, media presentations, and musical demonstrations and lectures given by faculty, artists, and students. Attendance at and reports on additional live concerts may be required. Students who repeat this course will improve skills through further instruction and practice. Course open to all students.</td>
</tr>
<tr>
<td>MUS 2 — Music Theory</td>
<td>3 Units Degree Applicable, CSU, UC 54 hours lecture Corequisite: MUS 5A Study of harmony and form in Western tonal music. Explores the concept of tonality, the properties of melody, basic chord grammar and the mechanisms by which music projects meaning. Includes a comprehensive review of music fundamentals, including music notation, meter, scales, intervals and chord construction. Required for music majors.</td>
</tr>
</tbody>
</table>
### MUS 3A — Harmony
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MUS 2, MUS 5A
Corequisite: MUS 5B
An examination of the harmonic style of Western tonal music from the common practice period. Topics include elementary chord syntax, the principles of voice leading, simple figured bass realization, soprano harmonization, basic non-chord tones, seventh chords, basic modulation techniques, period forms and binaries. Students will compose original music in the harmonic and melodic style of Classical models.

### MUS 3B — Harmony
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MUS 2, MUS 5A
Corequisite: MUS 5B
Further examination of the harmonic style of Western tonal music from the common practice period, with emphasis on the contrapuntal music of the Baroque Era. Topics include secondary function chords, advanced non-chord tones, advanced figured bass realization, harmonic sequences, modified species, 18th century counterpoint and imitative contrapuntal forms. Students will write analysis papers and compose original music in the harmonic and melodic style of Baroque models.

### MUS 3C — Harmony
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MUS 3B, MUS 6A
Corequisite: MUS 6B
Further examination of the harmonic style of Western tonal music from the common practice period, with emphasis on 18th and 19th century repertoire. Topics include modal mixture, chromatic harmony, extended tonization, advanced modulation techniques, lieder, rondo and sonata form. Students will write analysis papers and compose original music in the harmonic and melodic style of Romantic models.

### MUS 5A — Musicianship
1 Unit
Degree Applicable, CSU, UC
18 hours lecture
18 hours lab
Prerequisite: MUS 2
Corequisite: MUS 5B
Required for music majors. Emphasizes sight singing, aural perception and dictation of rhythm, melody, intervals and simple harmonic progressions. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

### MUS 5B — Musicianship
1 Unit
Degree Applicable, CSU, UC
18 hours lecture
18 hours lab
Prerequisite: MUS 2, MUS 5A
Corequisite: MUS 3A
Provides further training in sight singing, aural perception and dictation, including soprano-bass dictation of diatonic Bach-style chorales. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

### MUS 6A — Musicianship - Advanced
2 Units
Degree Applicable, CSU, UC
36 hours lecture
18 hours lab
Prerequisite: MUS 3A
Corequisite: MUS 3B
Advanced training in sight singing, aural perception and dictation, including soprano-bass dictation of modulating Bach-style chorales and imitative counterpoint. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

### MUS 6B — Musicianship - Advanced
2 Units
Degree Applicable, CSU, UC
36 hours lecture
18 hours lab
Prerequisite: MUS 3B
Corequisite: MUS 6A
Provides further training in sight singing, aural perception and dictation, including soprano-bass dictation of chromatic chord progressions and aural reduction of decorated instrumental textures. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

### MUS 7 — Fundamentals of Music
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Non-music major course dealing with basic elements of music notation, melody, rhythm, and harmony. Written exercises utilizing the techniques of melody, rhythm, and harmony will be employed. Recommended for prospective elementary school teachers.

### MUS 11A — Music Literature Survey
1 Unit
Degree Applicable, CSU, UC
54 hours lecture
A survey of Western music from the Medieval period through the 18th century including examples of music from several non-western cultures. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.

### MUS 11B — Music Literature Survey
1 Unit
Degree Applicable, CSU, UC
54 hours lecture
A survey of Western music from the 18th to the early 21st century including examples from several non-western cultures that have influenced music of those style periods. Lectures are augmented by recordings and other support media pertinent to the cultures/period being studied. Attending at least one live concert is required.

### MUS 12 — History of Jazz
3 Units
Degree Applicable, CSU, UC
54 hours lecture
(May be taken for option of letter grade or Pass/No Pass only)
Advisory: Eligibility for ENGL 68
A survey of Jazz as a significant American art form from its roots in African and Creole music to the present. Major styles, leading performers, significant compositions and recordings, and the social, economic, and cultural contexts of the music will be stressed.

### MUS 13 — Introduction to Music Appreciation
3 Units
Degree Applicable, CSU, UC
54 hours lecture
An introductory study of music from a variety of cultures including a survey of Western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 13H — Music Appreciation - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>MUS 14A — World Music</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture, Advisory: Eligibility for ENGL 68</td>
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</tr>
<tr>
<td>MUS 15 — Rock Music History and Appreciation</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td></td>
</tr>
<tr>
<td>MUS 16 — Individual Instruction (CAN MUS14)</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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</tr>
<tr>
<td>MUS 17A — Elementary Class Piano (CAN MUS22)</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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<tr>
<td>MUS 17B — Intermediate Class Piano (CAN MUS24)</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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<tr>
<td>MUS 18 — Advanced Class Piano</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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<tr>
<td>MUS 19 — Class Organ</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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</tr>
<tr>
<td>MUS 20A — Elementary Class Voice</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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</tr>
<tr>
<td>MUS 20B — Intermediate Class Voice</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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</tr>
<tr>
<td>MUS 21 — Advanced Class Voice</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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</tr>
<tr>
<td>MUS 22 — Conducting</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU</td>
<td>May be taken four times for credit</td>
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</tr>
<tr>
<td>MUS 23A — Elementary Class Guitar</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
<td></td>
</tr>
<tr>
<td>MUS 23B — Intermediate Class Guitar</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken four times for credit</td>
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</tbody>
</table>

MUS 13H — Music Appreciation - Honors
An introductory study of music from a variety of cultures including a survey of western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required. An honors course designed to provide an enriched experience. Students may not receive credit for both MUS 13 and MUS 13H.

MUS 14A — World Music
Examines the dominant musical cultures of the world within Africa, the Americas, and Asia and compares these to Western popular music. Identifies vocal and instrumental genres within selected cultures and examines the harmonic, melodic, and rhythmic characteristics of each style. Lectures, films, recordings, and media presentations will assist the student in exploring the ways in which music is used around the world for aesthetic, social, and spiritual purposes.

MUS 15 — Rock Music History and Appreciation
A historical survey of rock music from its beginnings in the early 50s to the present. Rhythm and Blues, Rockabilly, the British Invasion, Motown, Soul, Folk Rock, Hard Rock, Punk, Heavy Metal, and various Alternative Rock styles will be discussed. Personalities and musical styles will be related to the sociology of the time period being studied.

MUS 16 — Individual Instruction (CAN MUS14)
A course in applied music for students also enrolled in a major performing group. Instruction includes a private one-half hour lesson plus five and one-half hours of laboratory practice per week. Individual problems of performance techniques, interpretation, and repertoire are included. Students who repeat this course will improve skills through further instruction and practice.

MUS 17A — Elementary Class Piano (CAN MUS22)
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice. No prior musical experience is required.

MUS 17B — Intermediate Class Piano (CAN MUS24)
Reading and performances of piano literature with further emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.

MUS 18 — Advanced Class Piano
Reading and performance of piano literature with further emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.

MUS 19 — Class Organ
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.

MUS 20A — Elementary Class Voice
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.

MUS 20B — Intermediate Class Voice
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.

MUS 21 — Advanced Class Voice
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.

MUS 22 — Conducting
A course in conducting with emphasis on the development of musicianship. This course is designed to provide an enriched experience. Students may not receive credit for both MUS 13 and MUS 13H.

MUS 23A — Elementary Class Guitar
A course in guitar technique with emphasis on chord progression and sight reading. Group instruction. Students who repeat this course will improve skills through further instruction and practice.

MUS 23B — Intermediate Class Guitar
A course in guitar technique with emphasis on chord progression and sight reading. Group instruction. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 24</td>
<td>Advanced Class Guitar</td>
<td>1 Unit</td>
<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td></td>
<td>18 hours lab</td>
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<td>Advisory: MUS 23B</td>
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<tr>
<td></td>
<td>The style, technique, and interpretation of guitar music of the 18th and 19th centuries will be studied and performed. Sight reading and ensemble playing will be emphasized. Students must furnish their own acoustic guitars. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>MUS 25A</td>
<td>Jazz Improvisation</td>
<td>1 Unit</td>
<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>18 hours lecture</td>
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<td>18 hours lab</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Advisory: MUS 2 or MUS 7 and/or audition by professor</td>
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<tr>
<td></td>
<td>Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>MUS 25B</td>
<td>Jazz Improvisation</td>
<td>1 Unit</td>
<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>18 hours lab</td>
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<td></td>
<td></td>
<td></td>
<td>Advisory: MUS 2 or MUS 7 and/or audition by professor and MUS 25A or equivalent experience</td>
</tr>
<tr>
<td></td>
<td>Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Augments and supplements MUS 25A. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 26</td>
<td>Chamber Winds</td>
<td>2 Units</td>
<td>(May be taken four times for credit)</td>
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<td>108 hours lab</td>
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<td></td>
<td>Consequences: MUS 49 and admission by audition</td>
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<tr>
<td></td>
<td>This select ensemble of wind instruments will study and perform small ensemble music by major composers. Includes brass and woodwind quintets and ensembles for families of instruments. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 29</td>
<td>Choral Workshop</td>
<td>1 Unit</td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td>54 hours lab</td>
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<td>Open to all students without an audition. Choral music of all genres with an emphasis on strengthening choral skills, including sight singing, tone, blend, balance and good vocal technique. Covers choral tone of the Renaissance to correct use of the microphone when singing pop or vocal jazz. Several guest conductors from local universities will provide clinics. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 30</td>
<td>Collegiate Chorale</td>
<td>1 Unit</td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 31</td>
<td>Concert Choir</td>
<td>2 Units</td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>18 hours lecture</td>
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<td>18 hours lab</td>
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<td>Prerequisite: Admission by audition the first week of class</td>
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<tr>
<td></td>
<td>A mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances is required. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 32</td>
<td>Masterworks Chorale</td>
<td>1 Unit</td>
<td>(May be taken four times for credit)</td>
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<td>54 hours lab</td>
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<td>Prerequisite: Admission by audition during the first week of class</td>
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<td>This Soprano, Alto, Tenor, Bass choir will perform major choral works ranging from the Baroque era to the 20th century. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory. Students who repeat this course will improve their skills through further instruction, practice, and knowledge of varied repertoire.</td>
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<tr>
<td>MUS 33</td>
<td>Women's Vocal Ensemble</td>
<td>2 Units</td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Prerequisite: MUS 2 or MUS 7 and/or audition by professor</td>
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<tr>
<td></td>
<td>A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 34</td>
<td>Women's Vocal Ensemble</td>
<td>2 Units</td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Prerequisite: Admission by audition</td>
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<td></td>
<td>Study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 35</td>
<td>Concert and Community Band</td>
<td>2 Units</td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
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<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Advisory: Previous band experience</td>
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<td></td>
<td>Study and performance of standard and new band literature. Experience will be given to capable student directors, soloists, arrangers and composers. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 36</td>
<td>Women's Vocal Ensemble</td>
<td>2 Units</td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Prerequisite: MUS 2 or MUS 7 and/or audition by professor</td>
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<tr>
<td></td>
<td>A choral ensemble open to all students. A variety of choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 37</td>
<td>Women's Vocal Ensemble</td>
<td>2 Units</td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>108 hours lab</td>
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<td></td>
<td>Prerequisite: MUS 2 or MUS 7 and/or audition by professor</td>
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<tr>
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<td>A choral ensemble open to all students. A variety of choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tbody>
</table>
### MUS 40 — Pep Band
1 Unit  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
54 hours lab  
Prerequisite: Admission by audition  
Study and performance of standard and contemporary music for athletic and school spirit functions. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice.

### MUS 44 — Vocal Jazz Ensemble
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
162 hours lab  
Prerequisite: Admission by audition  
A vocal ensemble appropriate for beginning and intermediate jazz singers. This group will perform vocal jazz charts accompanied by a rhythm section, as well as a cappella. Basics of singing jazz, vocal improvisation, group singing techniques, and microphone techniques. Ensemble will perform locally and/or at vocal jazz festivals. Attendance at performances and competitions is required. Students who repeat this course will improve skills through further instruction and practice.

### MUS 45 — Chamber Singers
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
162 hours lab  
Prerequisite: Admission by audition  
A highly select mixed choral group, specializing in smaller ensemble repertoire. A wide variety of choral literature is performed publicly several times each semester and a performance tour occurs each Spring semester. Emphasizes advanced musical skills and vocal techniques while focusing on the importance of blend, balance, and tone. Auditions for this course are held each May. Students who repeat this course will improve skills through further instruction and practice.

### MUS 46 — Mt. SAC Singers
2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
36 hours lecture  
36 hours lab  
Prerequisite: Admission by audition  
The "Mt. SAC Singers" is a select choral ensemble, specializing in choreographed popular and musical theater literature. Includes a wide variety of music performed publicly several times every semester. Emphasizes advanced musical skills, vocal technique, choreography and showmanship skills. Students who repeat this course will improve skills through further instruction and practice.

### MUS 47 — Jazz Band
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
162 hours lab  
Prerequisite: Admission by audition  
An instrumental ensemble dealing with all types of popular music and jazz. Preference will be given to performers playing more than one instrument. Students who repeat this course will improve skills through further instruction and practice.

### MUS 48 — Men’s Vocal Ensemble
2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
108 hours lab  
Prerequisite: Admission by audition the first week of class  
The study and performance of selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

### MUS 49 — Wind Ensemble
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
162 hours lab  
Prerequisite: Admission by audition  
The premier classical wind and percussion ensemble at the College. Students must have previous instrumental training and demonstrate proficiency. Requires public performances. Concerts emphasize works of major composers, original compositions, and guest artists. Experience may be given to capable students as directors, soloists, arrangers, and composers. Students who repeat this course will improve skills through further instruction and practice.

### MUS 50 — Jazz Improvisation and Performance Choir
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
162 hours lab  
Prerequisite: Admission by audition  
An advanced vocal jazz choir. This choir will perform advanced vocal jazz arrangements and students will study the historical, theoretical and technical aspects of both instrumental and vocal jazz. Advanced solo singing techniques and scat singing will be rehearsed and the choir will perform at least one concert each semester at Mt. SAC along with attending and performing at a variety of musical venues. This class will have the opportunity to work with guest artists and make CD recordings. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice. Admission by audition.

### MUS 47 — Jazz Band
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
162 hours lab  
Prerequisite: Admission by audition  
An instrumental ensemble dealing with all types of popular music and jazz. Preference will be given to performers playing more than one instrument. Students who repeat this course will improve skills through further instruction and practice.

### MUS 48 — Men’s Vocal Ensemble
2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
108 hours lab  
Prerequisite: Admission by audition the first week of class  
The study and performance of selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

### MUS 49 — Wind Ensemble
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
162 hours lab  
Prerequisite: Admission by audition  
The premier classical wind and percussion ensemble at the College. Students must have previous instrumental training and demonstrate proficiency. Requires public performances. Concerts emphasize works of major composers, original compositions, and guest artists. Experience may be given to capable students as directors, soloists, arrangers, and composers. Students who repeat this course will improve skills through further instruction and practice.

### MUS 50 — Jazz Improvisation and Performance Choir
3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
162 hours lab  
Prerequisite: Admission by audition  
An advanced vocal jazz choir. This choir will perform advanced vocal jazz arrangements and students will study the historical, theoretical and technical aspects of both instrumental and vocal jazz. Advanced solo singing techniques and scat singing will be rehearsed and the choir will perform at least one concert each semester at Mt. SAC along with attending and performing at a variety of musical venues. This class will have the opportunity to work with guest artists and make CD recordings. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice. Admission by audition.

### MUS 99 — Special Projects in Music
1 to 3 Units  
Degree Applicable  
(May be taken four times for credit)  
54 to 162 hours lab  
Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s approval before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.

### NURS 1A — The Nursing Process I
4.75 Units  
Degree Applicable, CSU  
45 hours lecture
126 hours lab  
Prerequisite: Admission to Nursing Program; ANAT 35 or equivalent and ANAT 36 or equivalent, or ANAT 10A or equivalent and ANAT 10B or equivalent, and MICR 22 or equivalent, or MICR 71 or equivalent, and ENG 1A or equivalent  
Corequisite: NURS 2  
Principles of nursing as related to a culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process. Including meaning of illness, promoting health patterns, hygiene, safety, asepsis, medication administration, elimination, communication. The Betty Neuman Model serves as the conceptual framework.

### NURS 1B — The Nursing Process II
4.75 Units  
Degree Applicable, CSU  
45 hours lecture
126 hours lab  
Prerequisite: NURS 1A or Advanced Placement  
Corequisite: NURS 2  
Principles of nursing as related to culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process including wound care, legal/ethical aspects, comfort, fluid and electrolytes, spirituality, and nursing trends. The Betty Neuman Model serves as the conceptual framework.

### NURS 2 — Pharmacology
2 Units  
Degree Applicable, CSU  
36 hours lecture  
Prerequisite: Admission to Nursing Program and eligibility for MATH 51  
Corequisite: NURS 1A  
The ethical and legal responsibilities in the administration of medications. Application of mathematical concepts, the Nursing Process, and drug therapy to the administration of fluids and medications.
### Course Descriptions

#### NURS 3 — Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology
3.5 Units  
Degree Applicable, CSU  
30 hours lecture  
99 hours lab  
Prerequisite: NURS 18 and NURS 2 or Advanced Placement  
Concepts of nursing assessment and intervention with application to clients with integumentary and immunologic disorders as well as dysfunctions of sensation and locomotion. An introduction to oncology nursing is included. The Betty Neuman Model serves as the conceptual framework.

#### NURS 4 — Maternity Nursing
3 Units  
Degree Applicable, CSU  
27 hours lecture  
81 hours lab  
Prerequisite: NURS 3 or Advanced Placement  
Concepts of nursing assessment and intervention with application to maternity and newborn clients. The Betty Neuman Model serves as the conceptual framework.

#### NURS 5 — Psychiatric Nursing
3 Units  
Degree Applicable, CSU  
27 hours lecture  
81 hours lab  
Prerequisite: NURS 4 or Advanced Placement and PSYC 1A  
Concepts of nursing assessment and intervention with application to clients with psychiatric disorders in a mental health setting. The Betty Neuman Model serves as the conceptual framework.

#### NURS 6 — Pediatric Nursing
3 Units  
Degree Applicable, CSU  
27 hours lecture  
81 hours lab  
Prerequisite: NURS 5 or Advanced Placement and CHLD 10 or PSYC 14  
Concepts of nursing assessment and intervention with application to pediatric clients. The Betty Neuman Model serves as the conceptual framework.

#### NURS 7 — Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis
7 Units  
Degree Applicable, CSU  
60 hours lecture  
198 hours lab  
Prerequisite: NURS 6 or Advanced Placement  
Concepts of nursing assessment and intervention with application to clients with problems of nutrition, elimination, and the reproductive systems. Clients in pre-, intra-, and post-operative settings are included. The Betty Neuman Model serves as the conceptual framework.

#### NURS 8 — Medical-Surgical Nursing: Circulation and Oxygenation
5 Units  
Degree Applicable, CSU  
45 hours lecture  
144 hours lab  
Prerequisite: NURS 7 or Advanced Placement  
Corequisite: NURS 9  
Concepts for nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework.

#### NURS 9 — Leadership in Nursing
1 Unit  
Degree Applicable, CSU  
18 hours lecture  
Prerequisite: NURS 7 or Advanced Placement  
Corequisite: NURS 8  
Assists the second year student to develop cognitive and leadership skills for first level management positions. Includes exploration and analysis of current trends and issues in nursing.

#### NURS 10 — Medical-Surgical Nursing: Integration/Regulation
4 Units  
Degree Applicable, CSU  
45 hours lecture  
96 hours lab  
Prerequisite: NURS 8, NURS 9 or Advanced Placement  
Corequisite: NURS 9  
Concepts for nursing assessment and intervention with application to clients with neurological and endocrine disorders. The Betty Neuman Model serves as the conceptual framework.

#### NURS 11 — Preceptorship in Nursing
2 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
112 hours lab  
Prerequisite: NURS 10 or Advanced Placement  
Advisory: NURS 10 or Advanced Placement  
Students participate as a pre-licensed health team member immediately prior to graduation. Students assume responsibility for a group of clients under direct supervision of a qualified registered nurse.

#### NURS 20 — Nursing Work Experience Program
4 Units  
Not Degree Applicable  
(May be taken for Pass/No Pass only)  
75 to 300 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program  
On-the-job experience for nursing students in an approved work setting related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

#### NURS 70 — Role Transition
3 Units  
Degree Applicable  
(May be taken for Pass/No Pass only)  
36 hours lecture  
54 hours lab  
Prerequisite: Advanced Placement; PT (Psychiatric Technician) or LVN (Licensed Vocational Nurse); ANAT 35 or equivalent and ANAT 36 or equivalent, and ANAT 10A or equivalent and ANAT 10B or equivalent, and MICR 22 or equivalent, or MICR 1 or equivalent, and ENGL 1A or equivalent, and PSYC 1A or equivalent, and CHLD 70 or equivalent or PSYK 14 or equivalent  
For the LVN (Licensed Vocational Nurse), PT (Psychiatric Technician) or advanced placement student transitioning into the role of the RN (Registered Nurse). Theory and application of concepts of physical assessment, the relationship of homeostatic mechanisms to fluid and electrolyte balance/imbalance utilizing the Betty Neuman Model as the conceptual framework.

#### NURS 99 — Special Projects in Nursing
2 Units  
Not Degree Applicable  
(May be taken four times for credit)  
108 hours lab  
Prerequisite: Placement in Nursing Program  
Provides students the opportunity to explore a discipline in greater depth. Content of each course and the methods of study will depend on the particular project. Instructor’s authorization before enrolling is required.

### NUTRITION AND FOOD

#### NF 10 — Nutrition for Personal Health and Wellness
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Basic principles of human nutrition and their relationship to optimum health. Emphasizes nutrient needs, food selection and weight control during the various life stages from prenatal to adult. Student food intake is evaluated in several ways including computer diet analysis. This course is intended for non-health science majors.

#### NF 20 — Principles of Food with Lab
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Introduction to basic food science principles and food preparation procedures with emphasis on ingredient functions and interaction; food preparation techniques and skills; sensory evaluation standards; food safety and sanitation; food preparation equipment and utensils; storage standards; and nutrient retention.
Composition and properties of food.

Packaging; dispersion systems, enzyme reactions, food additives, and acidity, food processing technologies, nutritional labeling, evaluation, scientific research methods, function of water in foods, pH these affects the color, flavor, texture, aroma and quality of foods. Core

Exploration of food chemistry, food processing and technology and how these affects the color, flavor, texture, aroma and quality of foods. Core components: government regulation of processing and labeling, sensory evaluation, scientific research methods, function of water in foods, pH and acidity, food processing technologies, nutritional labeling, packaging; dispersion systems, enzyme reactions, food additives, composition and properties of food.

NF 25 — Essentials of Nutrition 3 Units (CAN FCS02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span.

NF 25H — Principles of Nutrition - Honors 3 Units (CAN FCS02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span. An honors course designed to provide an enriched experience. Students may not receive credit for both NF 25 and NF 25H.

NF 28 — Cultural and Ethnic Foods 3 Units Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
Regional, ethnic, cultural, religious, historical and social influences on food patterns and cuisines. Core components: specialized equipment and utensils related to cultures; traditional foods of selected cultures; geographic factors in food availability; global food issues; sanitation and safety practices.

NF 30 — Food Science Technologies 3 Units Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68
Exploration of food chemistry, food processing and technology and how these affects the color, flavor, texture, aroma and quality of foods. Core components: government regulation of processing and labeling, sensory evaluation, scientific research methods, function of water in foods, pH and acidity, food processing technologies, nutritional labeling, packaging; dispersion systems, enzyme reactions, food additives, composition and properties of food.

NF 61 — Creative Foods 3 Units Degree Applicable
36 hours lecture
54 hours lab
Instruction in the skills necessary for more advanced methods of food preparation. Topics include garde manger, baking and pastry, and international cuisine, techniques of healthy cooking, and vegetarian cuisine with emphasis placed on knife skills, garnishing, plate presentation and creative decorating.

NF 62 — Meal Management 3 Units Degree Applicable, CSU
36 hours lecture
54 hours lab
Advisory: NF 20 or equivalent food preparation experience
Develop management skills related to food preparation, emphasizing planning, preparing, and serving adequate and attractive meals while managing resources including time, money and labor. Includes laboratory experience in planning, preparing and serving meals.

NF 61H — Creative Foods - Honors 3 Units Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Advisory: NF 20 or equivalent food preparation experience
Corequisite: NF 61
Develop management skills related to food preparation, emphasizing planning, preparing, and serving adequate and attractive meals while managing resources including time, money and labor. Includes laboratory experience in planning, preparing and serving meals.

NF 81 — Cooking for Your Heart and Health 1 Unit Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
12 hours lecture
18 hours lab
Principles and techniques of healthful food preparation emphasizing the reduction of fat, saturated fat, trans fat, cholesterol, and sodium, and the increase of fiber and nutrients in foods. The course includes laboratory experience in preparation of health promoting foods and meals.

NF 81H — Cooking for Your Heart and Health - Honors 1 Unit Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
12 hours lecture
18 hours lab
Advisory: NF 20 or equivalent food preparation experience
Corequisite: NF 81
Principles and techniques of healthful food preparation emphasizing the reduction of fat, saturated fat, trans fat, cholesterol, and sodium, and the increase of fiber and nutrients in foods. The course includes laboratory experience in preparation of health promoting foods and meals.

NF 82 — Vegetarian Cuisine 1 Unit Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
12 hours lecture
18 hours lab
Principles and techniques of vegetarian food preparation and investigation of issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals.

OCEA 10 — Introduction to Oceanography 3 Units Degree Applicable, CSU, UC
54 hours lecture
An introduction to the ocean environment including the geologic, chemical, physical, and ecological aspects of the field. Topics include plate tectonics, currents, waves, tides, shores and human impact on the oceans. Field trips included.

OCEA 10H — Introduction to Oceanography - Honors 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
An honors course designed to provide an enriched experience. Introduces the geological, chemical, physical, and biological aspects of the Earth's ocean. Topics include plate tectonics, physiography of ocean basins and continental margins, ocean sediment, atmosphere and ocean circulation, waves and tides, coasts, and marine ecology. The companion Oceanography Lab (OCEA 10L) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required. Students may not receive credit for both OCEA 10 and OCEA 10H.

OCEA 10L — Introduction to Oceanography Laboratory 1 Unit Degree Applicable, CSU, UC
54 hours lab
Corequisite: OCEA 10 or OCEA 10H (May have been taken previously)
Laboratory applications and problem-solving in oceanography, including related aspects of geology, meteorology, and marine biology. Recommended for students needing a lab to transfer to a 4-year college/university.

PHIL 3 — Logic in Practice 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
The analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions.

PHIL 3H — Logic in Practice - Honors 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
The analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 3 and PHIL 3H.

PHIL 5 — Introduction to Philosophy 3 Units (CAN PHIL02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
An exploration of basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life.
### COURSE DESCRIPTIONS

#### PHIL 12 — Ethics 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
An exploration of basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 5 and PHIL 5H.

#### PHIL 9 — Critical Thinking and Logical Writing 3 Units
Degree Applicable, CSU, UC
54 hours lecture
The effective use of critical thinking in contemporary living, including recognizing faulty arguments, the usefulness of validity and truth, identifying and avoiding common fallacies in thinking.

#### PHIL 8 — Critical Thinking 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
A critical analysis of empirical and normative factors involved in choice, including an examination of major ethical theories and their application to the study of moral problems.

#### PHIL 12H — Ethics · Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Critical analysis of empirical and normative factors involved in choice, including an examination of major ethical theories and their application to the study of moral problems. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 12 and PHIL 12H.

#### PHIL 15 — Major World Religions 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Examines the salient features of the world’s major and enduring religions. Religion is approached as the expression of one’s ultimate concern as a means of understanding the historic and ideological foundations and aspirations of the peoples of the world. The following (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Islam, Judaism, and Christianity.

#### PHIL 15H — Major World Religions · Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Examines the salient features of the world’s major and enduring religions. Religion is approached as the expression of one’s ultimate concern as a means of understanding the historic and ideological foundations and aspirations of the peoples of the world. The following (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Islam, Judaism, and Christianity. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 15 and PHIL 15H.

#### PHIL 20A — History of Western Philosophy 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Examines the major western philosophers and philosophical ideas from pre-Socratic times to the Renaissance.

#### PHIL 20B — History of Western Philosophy 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Examines the major western philosophy and philosophical ideas from the Renaissance to the twentieth century.

### PHOTOGRAPHICS

#### PHOT 1 — Laboratory Studies: Black and White Photography 1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Use of digital cameras, lenses, filters, and exposure to compose quality photographs. Shooting assignments are given for analysis in class. Camera will be required after the second week.

#### PHOT 10 — Basic Digital and Film Photography 3 Units
Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
The basic mechanical, optical, and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.

#### PHOT 11 — Advanced Professional Photography 4 Units
Degree Applicable
36 hours lecture
108 hours lab
Prerequisite: PHOT 10
Exploration of current professional photographic techniques. Exploration of current includes studio and field assignments related to problems encountered in professional photography. Topics include but are not limited to medium and large format film and digital cameras and computer basics for professional photographers. Students must furnish SLR camera.

#### PHOT 12 — Photographic Alternatives 3 Units
Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Explores the use of continuous tone and alternative black and white techniques and processes. Emphasis will be on solving photographic problems through the use of current techniques such as montage printing, Polaroid and xerographic applications, hand coloring, and emulsion coating (cyanotype, Luminous/Liquid Light) as well as other special techniques.

#### PHOT 14 — Commercial Lighting 4 Units
Degree Applicable
36 hours lecture
108 hours lab
Prerequisite: PHOT 10
Advisory: PHOT 11
Use of studio equipment, and studio and location lighting techniques used in all aspects of commercial photographic applications. Students must furnish adjustable SLR camera.
PHOT 15 — History of Photography 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

PHOT 16 — Fashion Photography 3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: PHOT 11  
Illustrative, editorial and advertising fashion photography. Studio and location production in both black and white and color are emphasized. Aspects of business operation and working with clients are explored.

PHOT 17 — Photocommunication 3 Units  
Degree Applicable  
36 hours lecture  
72 hours lab  
Prerequisite: PHOT 10  
Explores the application of the photosensitive materials, photochemicals and optics. The emphasis will be on the aesthetic and expressive uses to which these materials lend themselves. The student is expected to supply his/her own adjustable camera.

PHOT 18 — Portraiture and Wedding Photography 3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: PHOT 10  
Techniques and photographic procedures for taking informal, formal, environmental and group portraits. In depth study and practice in professional wedding photography.

PHOT 20 — Color Photography 3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: PHOT 10  
An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.

PHOT 21 — Exploring Color Photography 3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: PHOT 20  
Explores the application of color processes as they relate to commercial and artistic styles. Emphasis is on innovative use of color and contemporary techniques. Includes media manipulation and unique processing, coloring negatives, 8x10 Polaroid, digital imagery, specialized lighting, set building, and quality control.

PHOT 28 — Photography Portfolio Development 3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: Minimum 12 units of photography at Mt. San Antonio College or equivalent preparation  
Development of a photography portfolio for job application or gallery exhibition purposes.

PHOT 30 — Commercial and Illustrative Photography 3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Prerequisite: PHOT 11, PHOT 20  
Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both black-and-white and color media will be used.

PHOT 99 — Special Projects in Photography 2 Units  
Degree Applicable  
(May be taken four times for credit)  
36 hours lecture  
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

PHYSICAL EDUCATION: ADAPTIVE

PE-L 2 — Physical Fitness for the Physically Limited .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
A modified muscular conditioning program using machines and free weights specifically designed to assist students with a physical challenge. Students who repeat this course will improve daily living skills through further instruction and practice.

PE-L 4 — Adaptive Aquatics 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours activity  
Designed to assist students with a disability or limitation to develop or improve swimming skills. Appropriate for swimmers and non-swimmers. Students who repeat this course will improve their skills through further instruction and practice.

PE-L 10 — Wheelchair Sports 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours activity  
Designed to develop and enhance sports skills and technique for students using a wheelchair. Introduction to basic rules, skills, conditioning and strategies for a variety of sports. Students who repeat this course will improve their skills through further instruction and practice.

PE-L 14 — Activity Programs for the Physically Limited .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Designed for students with a disability or limitation who require special assistance or equipment to participate in leisure activities. Course content will vary each semester in order to meet current students’ needs. Students who repeat this course will improve their skills through further instruction and practice.

PE-L 18 — Weight Training for the Physically Limited .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours activity  
Designed to assist students with a physical limitation develop strength, flexibility and endurance through weight training. Students are introduced to basic skills and strategies of the health-related physical fitness. Students who repeat this course will improve skills through further instruction and practice.
Course Descriptions

PHYSICAL EDUCATION: AQUATICS

Cluster repeatability:
Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values.

Clusters:
- PE-A 8A, PE-A 8B, PE-A 8C

PE-A 4 — Lifeguard Training 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
May be taken for option of letter grade or Pass/No Pass
54 hours activity
Prerequisite: 15 years of age or older, demonstrate ability to swim 50 yards using crawl, breaststroke, elementary backstroke, and sidestroke; surface dive to 9 feet and bring a ten pound brick to surface; swim under water 15 yards; tread water for two minutes continuously
Meets American Red Cross requirements for lifeguard training. To receive certification, students must pass the written and practical skills test and application of methods of organizing and presenting aquatic materials. Satisfactory completion of the course may lead to the Lifeguard and First Aid Certificates. The objective for students who repeat this course is to recertify and improve rescue techniques through supervised practice and instruction.

PE-A 8A — Swimming - Beginning .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Prerequisite: 12 years of age or older, demonstrate ability to swim 50 yards using crawl, breaststroke, sidestroke, and backstroke; surface dive to 9 feet and bring a ten pound brick to surface; swim under water 15 yards; tread water for two minutes continuously
Designed to teach basic swimming strokes and aquatic skills to individuals with little or no swimming ability. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8B — Swimming - Intermediate .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Prerequisite: 13 years of age or older, can swim 25 yards using crawl, breaststroke, elementary backstroke, and sidestroke; surface dive to 9 feet and bring a ten pound brick to surface; swim under water 15 yards; tread water for two minutes continuously
Designed to improve basic swimming strokes and aquatic skills for individuals who have had instruction in all of the basic strokes and can swim in deep water. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8C — Swimming - Advanced .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Prerequisite: Demonstrate proficiency equivalent to Red Cross Level IV Swimming Test
Designed to offer aquatic techniques of an advanced level and to refine the skill of the competent swimmer. Students who repeat this course will improve skills through further instruction and practice.

PE-A 14 — Water Polo .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.

PE-A 16 — Water Safety Instructor 2 Units
Degree Applicable, CSU, UC
(CAN PE10)
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
108 hours activity
Prerequisite: 17 years of age or older at the start of the course; 2) Demonstrate proficiency equivalent to Level VI of the American Red Cross Learn to Swim Program; 3) Demonstrate skills on a proficiency level equal to the American Red Cross Emergency Water Safety course Analysis and performance of swimming skills related to safety; theory and application of methods of organizing and presenting aquatic materials. Satisfactory completion of the course may lead to the American Red Cross Water Safety Instructor’s Certificate. Repeating this course will allow for renewal of certificate and improve skills through further instruction and practice.

PE-A 18 — Springboard Diving .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Prerequisite: Demonstrates proficient ability to surface dive to 8 feet
Student must possess above average diving ability or experience in tumbling or gymnastics. Individualized instruction in the fundamentals and techniques of springboard diving. Students who repeat this course will improve skills through further instruction and practice.

PE-A 20 — Aquatic Fitness .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Student must be able to perform front crawl 50 yards. Designed to improve and maintain aquatic fitness. Emphasis on building strength, endurance and cardiovascular fitness. Students who repeat this course will improve skills through further instruction and practice.

PE-A 21 — Aqua Aerobics .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Designed to improve cardiovascular endurance, strength, agility, flexibility and general fitness through the mode of dynamic movement in the water. Appropriate for swimmers and nonswimmers. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL EDUCATION: ATHLETICS

Cluster repeatability:
Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values.

Clusters:
- PE-X 8A, PE-X 8B
- PE-X 10A, PE-X 10B

PE-X 6 — Baseball - Men 2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
180 hours activity
Enrollment is limited to team candidates and includes a minimum of 10 hours per week practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.

PE-X 8A — Basketball - Men 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
90 hours activity
Intended for Men’s Intercollegiate Basketball Team candidates to provide instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.

PE-X 8B — Basketball - Men 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
90 hours activity
Advisory: PE-X 8A
Intended for Men's Intercollegiate Basketball Team candidates to provide instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Sports</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-X 10A</td>
<td>Basketball - Women</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Basketball team candidates and provides instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 10B</td>
<td>Basketball - Women</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Men's Intercollegiate Basketball team candidates and provides instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 11</td>
<td>Cross Country - Men</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Men's Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 12</td>
<td>Cross Country - Women</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 16</td>
<td>Football - Men</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Football team candidates and provides instruction in the components of training and conditioning related to the sport of football. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 18</td>
<td>Golf - Men</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Men's Intercollegiate Golf Team candidates and provides instruction in the components of training and conditioning related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have own golf clubs.</td>
</tr>
<tr>
<td>PE-X 19</td>
<td>Golf - Women</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Golf Team candidates and provides instruction in the components of training and conditioning related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have own golf clubs.</td>
</tr>
<tr>
<td>PE-X 24</td>
<td>Soccer - Men</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Men's Intercollegiate Soccer Team candidates and provides instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 25</td>
<td>Soccer - Women</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Soccer Team candidates and provides instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 26</td>
<td>Softball - Women</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Softball Team candidates and provides instruction in the components of training and conditioning related to the sport of softball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 28</td>
<td>Swimming - Men</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Men's Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 30</td>
<td>Swimming - Women</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 32</td>
<td>Tennis - Men</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Men's Intercollegiate Tennis Team candidates and provides instruction in the components of training and conditioning related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 34</td>
<td>Tennis - Women</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for Women's Intercollegiate Tennis Team candidates and provides instruction in the components of training and conditioning related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 38</td>
<td>Track and Field - Men</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
</tbody>
</table>
### Course Descriptions

**PE-X 42 — Track and Field - Women**
- 2 Units
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 180 hours activity
- Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.

**PE-X 44 — Volleyball - Men**
- 2 Units
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 180 hours activity
- Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.

**PE-X 48 — Water Polo - Men**
- 2 Units
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 180 hours activity
- Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.

**PE-X 49 — Water Polo - Women**
- 2 Units
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 180 hours activity
- Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.

**PE-X 50 — Wrestling - Men**
- 2 Units
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 180 hours activity
- Enrollment is for Men's Intercollegiate Wrestling Team candidates and provides instruction in the components and conditioning related to the sport of wrestling. Students who repeat this course will improve through further instruction and practice.

**PE-X 70 — Pep Squad**
- 2 Units
- Degree Applicable
- (May be taken four times for credit)
- Provides training and experience for members of pep squads or rally units who are directly supportive of Mt. SAC activities. Students who repeat this course will improve skills through further instruction and practice.

**PE-X 75 — Pre-Season Athletics**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- Pre-season intercollegiate athletics. Enrollment is limited to athletic team candidates and includes, sport specific aerobic and anaerobic conditioning, drill technique, strength conditioning, speed development and game play. Students who repeat this course will improve skills and fitness through further instruction and practice.

**PE-X 88 — Pre-Season Athletics**
- .5 to 2 Units
- Degree Applicable, CSU
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 180 hours activity
- Pre-season intercollegiate athletics. Enrollment is limited to athletic team candidates and includes, sport specific aerobic and anaerobic conditioning, drill technique, strength conditioning, speed development and game play. Students who repeat this course will improve skills and fitness through further instruction and practice.

**PE-X 89 — Off-Season Athletics**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 180 hours activity
- Designed for athletic team candidates in an off-season program. Includes sport-specific training with the purpose of developing areas of individual weaknesses. Students who repeat this course will improve skills through further instruction and practice.

**PE-X 98 — Physical Fitness - Intermediate**
- 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 54 hours activity
- Develops components of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.

**PE-X 99 — Off-Season Athletics**
- .5 to 2 Units
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 180 hours activity
- Designed for athletic team candidates in an off-season program. Includes sport-specific training with the purpose of developing areas of individual weaknesses. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 4 — Cardiovascular Conditioning**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 54 hours activity
- Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 6A — Physical Fitness - Beginning**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 54 hours activity
- Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 6B — Physical Fitness - Intermediate**
- 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 54 hours activity
- Develops components of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 6C — Physical Fitness - Advanced**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 54 hours activity
- Develops components of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 6D — Physical Fitness - Advanced**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- (May be taken four times for credit)
- (May be taken for option of letter grade or Pass/No Pass)
- 36 to 54 hours activity
- Develops components of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.

### PHYSICAL EDUCATION: FITNESS

**Cluster repeatability:** Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values.

- **Clusters:**
  - PE-F 2A, PE-F 2B
  - PE-F 6A, PE-F 6B, PE-F 6C

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**2009-10 Mt. San Antonio College Catalog**
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-F 9</td>
<td>Conditioning for Sports</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>A conditioning course for athletes to develop fundamental skills and techniques for intercollegiate athletic competition. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 10</td>
<td>Weight Training</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<td></td>
<td>A muscular conditioning program using machines and free weights. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 12</td>
<td>Fitness and Body Conditioning</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<td></td>
<td>Circuit training, aerobic activity and overview of health concepts. Emphasis on nutrition, weight management, stress reduction and the benefits of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 13</td>
<td>Exercise Dynamics</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>108 hours activity</td>
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<tr>
<td></td>
<td>Increased frequency and body conditioning with increased frequency and duration of circuit training and aerobic activity; continued overview of health concepts; heightened emphasis on nutrition, weight management, stress reduction and the benefit of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
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<tr>
<td>PE-F 17</td>
<td>Fitness Walking</td>
<td>.5 to 1</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<td></td>
<td>Fitness walking, a low-impact aerobic activity, as part of an overall wellness program. The class walks on courses around Mt. San Antonio College and the surrounding community. Includes nutrition, personal skill development, weight management, cardiovascular endurance, stress management, and goal setting. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 18</td>
<td>Fitness Fundamentals</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>Provides the foundations in specific areas of fitness to set-up, maintain and organize a personalized fitness program. Presents in-depth coverage of each area of fitness in managing and promoting an individualized fitness regime. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 19</td>
<td>Strength Training</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>108 hours activity</td>
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<td></td>
<td>Designed for students concentrating on strength development through various types of exercise. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 20</td>
<td>Total Fitness</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>108 hours activity</td>
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<td></td>
<td>Fitness training with increased frequency and duration. Includes nutrition, exercise concepts, stress management, cardiovascular conditioning, muscle strength and flexibility training. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 22</td>
<td>Core Performance and Foundation Movement</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<tr>
<td></td>
<td>Body core training and foundation movement for students interested in improving their fitness level. Students who repeat this class will improve with continued practice and instruction.</td>
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<tr>
<td>PE-F 25</td>
<td>Baseline Fitness Assessment</td>
<td>.25</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>18 hours activity</td>
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<tr>
<td></td>
<td>Baseline fitness assessment of body composition, strength, strength endurance, cardiovascular endurance and flexibility. Includes interpretation of assessment results and guidelines for a personal exercise program. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
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</tr>
<tr>
<td>PE-F 30</td>
<td>Cardiorespiratory Training</td>
<td>.5 to 2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 108 hours activity</td>
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<tr>
<td></td>
<td>Individualized exercise programs designed to improve cardiopulmonary performance. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-F 32</td>
<td>Aerobics</td>
<td>.5 to 2</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 108 hours activity</td>
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<tr>
<td></td>
<td>Muscular strength and endurance exercise on circuit training equipment. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
<tr>
<td>PE-F 34</td>
<td>Physical Skills Preparation for Administration of Justice and Fire Technology</td>
<td>2</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>108 hours activity</td>
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<td>Through supervised and individualized training programs, the student will develop the necessary conditioning levels to pass entrance examinations in Administration of Justice and Fire Technology fields. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
</tbody>
</table>
### PE-F 51 — Agility Testing Preparation
1 Unit
For Administration of Justice and Fire Technology
Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
71 hours activity
A training program directed toward physical agility testing approximating the testing process required by various law enforcement and fire agencies. Students who repeat this course will improve skills through further instruction and practice.

### PE-F 52 — Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry
1 Unit
Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
71 hours activity
A conditioning program to maintain strength, agility, cardiovascular fitness and flexibility necessary to perform the tasks required of personnel in fields of law enforcement, fire science and forestry. Students who repeat this course will improve skills through further instruction and practice.

### PE-F 53 — Physical Training for the Basic Fire Academy
2.5 Units
Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
68 hours lecture
68 hours activity
Prepare the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student will acquire cardiovascular endurance, flexibility and strength. Students who repeat this course will improve skills through further instruction and practice.

### PE-F 59 — Firefighter Physical Ability Test
0.5 Unit
Not Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
2 hours activity
Administration of physical ability test examination. Includes nutrition, safety, body mechanics, exercise guidelines and execution of fire-related tasks. Successful completion of this course is required by various fire agencies for employment. Students must obtain test packet from website: firepat.mtsac.edu prior to enrolling. Repeating this course will allow for renewal of certificate and improvement of technique through further instruction and practice.

### PHYSICAL EDUCATION: INDIVIDUAL

#### PE-I 1 — Rock Climbing
1 Unit
Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
54 hours activity
Instruction in rock climbing. Includes preparation, equipment, techniques and strategies of rock climbing. Students who repeat this course will improve skills through further instruction and practice.

#### PE-I 4A — Badminton - Beginning
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Basic fundamentals of badminton. Includes singles and doubles play. Students who repeat this course will improve their skills through further instruction and practice.

#### PE-I 4B — Badminton - Intermediate
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Intermediate badminton techniques, including singles and doubles play. Students who repeat this course will improve their skills through further instruction and practice.

#### PE-I 4C — Badminton - Advanced
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Advanced badminton techniques, including singles and doubles tournament play. Students who repeat this course will improve their skills through further instruction and practice.

#### PE-I 18A — Golf - Beginning
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Basic fundamentals of golf. Emphasis on technique, strategy, and rules. Students who repeat this course will improve skills through further instruction and practice.

#### PE-I 18B — Golf - Intermediate
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Instruction for the golfer with previous golf experience. Includes putting, game management, club selection, and principles of the swing. Students must have their own golf clubs. Classes will be held at sites both on and off the Mt. SAC campus. Students who repeat this course will improve skills through further instruction and practice.

#### PE-I 18C — Golf - Advanced
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Instruction and practice for the proficient golfer (Sub 15 Handicap). Emphasis on golf swing analysis. Golf classes will be held at sites both on and off the Mt. SAC campus. Golf clubs required. Students who repeat this course will improve skills through further instruction and practice.

#### PE-I 125 — Mixed Martial Arts
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
The sport of submission grappling. An integration of striking and close-combat martial arts. Students who repeat this course will improve their skills through further instruction and practice.

#### PE-I 27A — Jeet Kune Do - Beginning
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Fundamentals and principles of Bruce Lee’s martial art. Emphasis on footwork, distance, and technique for combat efficiency in self-defense. Students who repeat this course will improve proficiency as a result of continued instruction and practice.

#### PE-I 27B — Jeet Kune Do - Intermediate
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Intermediate principles of Bruce Lee’s martial art. Intermediate level footwork, distance, and technique (punching, kicking, and grappling) for combat efficiency. Students who repeat this course will improve proficiency as a result of continued instruction and practice.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 28</td>
<td>Racquetball</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Racquetball fundamentals, skills and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 29</td>
<td>Self Defense/Martial Arts</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Basic concepts of self defense and martial arts. Covers technique in three ranges of combat: grappling, kick/punch, and weapons range. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 30A</td>
<td>Filipino Martial Arts - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Filipino martial arts of Eskrima and Arnis. Basic weapons training for defense in armed and unarmed scenarios. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 30B</td>
<td>Filipino Martial Arts - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. The Filipino martial arts of Eskrima and Arnis. Intermediate armed, unarmed and edged weapons training. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 31A</td>
<td>Jujitsu - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Fundamentals of Brazilian Jiu-Jitsu. Basic positions, breakfalls, training techniques, strategy, finishing holds, competition, history and philosophy. Students who repeat this course will improve skills through further instruction and practice. Students are required to provide their own Judo/Jiujitsu gi uniform.</td>
</tr>
<tr>
<td>PE-I 31B</td>
<td>Jujitsu - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Intermediate Brazilian Jiu-Jitsu. Progressions in positions, breakfalls, training techniques, strategy, finishing holds, competition and philosophy. Students who repeat this course will improve their skills through further instruction and practice. Students are required to provide their own Judo/Jiujitsu gi uniform.</td>
</tr>
<tr>
<td>PE-I 32</td>
<td>Kickboxing</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Presents the martial sport of kickboxing. Includes basic techniques for offense and defense, cardiovascular endurance, strategy and training modes. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 34</td>
<td>Women's Self Defense</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Techniques for personal protection and safety with emphasis on defensive tactics for women. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 35</td>
<td>Karate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Fundamentals of traditional karate. Includes form, technique, history and philosophy. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 36</td>
<td>Judo</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 36A</td>
<td>Tai Chi Chuan - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Tai Chi Chuan fundamentals. Focuses on health and wellness, meditation, relaxation and self-defense. Basic therapeutic exercises in the Tai Chi Chuan format will be presented. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 36B</td>
<td>Tai Chi Chuan - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Intermediate Tai Chi Chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 37A</td>
<td>Tai Chi Chuan - Advanced</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 38</td>
<td>Skiing Skills</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Alpine skiing skills, from novice to expert. Topics include purchasing, caring and using of equipment. Focuses on sport specific physical conditioning to develop muscular strength, endurance and flexibility. Mountain procedures and safety. Ski trips are mandatory and at the student's expense. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 40A</td>
<td>Tennis - Beginning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Beginning tennis fundamentals and techniques. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 40B</td>
<td>Tennis - Intermediate</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC (May be taken four times for credit) 36 to 54 hours activity. Intermediate tennis techniques and strategies for the individual who has previous experience and instruction in tennis. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Unit</td>
<td>Repeatability</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------</td>
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</tr>
<tr>
<td>PE-I 52</td>
<td>Individual Sports</td>
<td>0.5</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>PE-I 44</td>
<td>Track and Field</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-I 40C</td>
<td>Tennis - Advanced</td>
<td>0.5</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>PE-I 51</td>
<td>Iyengar Yoga</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-I 10</td>
<td>Soccer</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 24A</td>
<td>Volleyball - Beginning</td>
<td>0.5</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>PE-S 24B</td>
<td>Volleyball - Intermediate</td>
<td>0.5</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>PE-S 24C</td>
<td>Volleyball - Advanced</td>
<td>0.5</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>PE-S 24D</td>
<td>Aviation</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 35</td>
<td>Roller Hockey</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 35</td>
<td>Wrestling</td>
<td>0.5</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>PE-S 13</td>
<td>Football</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 19</td>
<td>Team Sports</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 24</td>
<td>Volleyball - Advanced</td>
<td>0.5</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>PE-S 20</td>
<td>Wrestling</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 21</td>
<td>Wrestling</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 22</td>
<td>Wrestling</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>PE-S 23</td>
<td>Wrestling</td>
<td>0.5</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th><strong>PHYSICAL EDUCATION: THEORY</strong></th>
<th><strong>COURSE DESCRIPTIONS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PE 3 — First Aid and CPR</strong></td>
<td><strong>PE 19 — Introduction to Care/Prevention of Activity/Sports-Related Injuries</strong></td>
</tr>
<tr>
<td>3 Units</td>
<td>3 Units</td>
</tr>
<tr>
<td>54 hours lecture</td>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>Advisory: Eligibility for ENGL 68</td>
<td>Instruction, including laboratory experience, in the techniques and procedures for prevention and treatment of activity and sports-related injuries. Includes the responsibilities of the athletic trainer, policies and procedures of the athletic training room and the operation of rehabilitative modalities.</td>
</tr>
<tr>
<td>Provides training, including laboratory experience in caring for victims of injuries, sudden illness and other medical emergencies; includes Community CPR. Students who successfully pass all requirements will earn the appropriate American Red Cross First Aid Certificate and/or CPR Certificate.</td>
<td></td>
</tr>
</tbody>
</table>

| **PE 5 — Advanced First Aid/CPR/Emergency Response** | **PE 24 — Kinesiology** |
| 3 Units | 2 Units |
| 54 hours lecture | Degree Applicable |
| Advisory: Eligibility for ENGL 68 | (May be taken for option of letter grade or Pass/No Pass) |
| Provides training and certifications, including laboratory experience for developing the First Aid and CPR skills required by public safety personnel, athletic trainers, emergency response team members, flight attendants, coaches and nurses. Students who successfully pass all requirements will receive an American Red Cross Certificate in Emergency Response and/or CPR for the Professional Rescuer. |
| 36 hours lecture | 36 hours lecture |
| Degree Applicable, CSU, UC | The study of movement as it relates to exercise and the interrelationships of body segments involved in human movement activity, actions of joints, nerves and muscle exercise. |

| **PE 10 — Fundamentals of Sport** | **PE 33 — Fitness Assessment** |
| 2 Units | .5 Unit |
| 36 hours lecture | Degree Applicable |
| Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass) |
| Instruction in the theory and technique of various selected sports: Basketball, Baseball, Cross Country, Football, Golf, Soccer, Softball, Swimming, Tennis, Track and Field, Volleyball, Water Polo and/or Wrestling. |
| 54 hours lecture | 9 hours lecture |
| Degree Applicable, CSU, UC | An integrated approach to healthy lifestyles. Includes pre and post fitness assessments, basic nutrition analysis, lifestyle behaviors and stress management. Interpretation of results includes goal-setting principles and development of basic exercise program. |

| **PE 13 — Sports Officiating** | **PE 34 — Fitness for Living** |
| 3 Units | 3 Units |
| 54 hours lecture | 54 hours lecture |
| Degree Applicable, CSU, UC | Degree Applicable, CSU, UC |
| Introduction to rules, regulations and career opportunities of various team and individual sports. |
| Survey and analysis of the components of fitness. Effects of fitness on optimal health, concepts of human movement, fitness program design, stress management, nutrition and weight control. |

| **PE 15 — Administration of Fitness Programs** | **PE 38 — Physiology of Exercise** |
| 2 Units | 3 Units |
| 36 hours lecture | 54 hours lecture |
| Degree Applicable | Degree Applicable |
| (May be taken for option of letter grade or Pass/No Pass) | Theory of basic physiological concepts as they pertain to exercise training and the prescription of individual fitness programs. |
| Provides leadership training and administrative skills related to fitness specialists, personal trainers and physical educators. Students will explore curriculum topics and practical skills related to careers in fitness and physical education. |
| 36 hours lecture | 36 hours lecture |
| Degree Applicable | Degree Applicable |
| Degree Applicable | Theory of cardiovascular exercise. |

| **PE 17 — Introduction to Physical Education** | **PE 39 — Techniques of Fitness Testing** |
| 3 Units | 2 Units |
| 54 hours lecture | Degree Applicable, CSU |
| Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass) |
| Introduction and orientation to physical education as a profession and academic discipline. Explores sub-disciplines, opportunities in the field, philosophy, scientific basis and analysis. |
| Theory and technique of performing fitness testing, assessment, evaluation, and recommendation. Includes related laboratory experience and practical applications. |

| **PE 30 — Physiology of Exercise** | **PE 40 — Techniques of Teaching Cardiovascular Exercise** |
| 3 Units | 2 Units |
| 36 hours lecture | Degree Applicable |
| Degree Applicable | Degree Applicable |
| Degree Applicable | (May be taken for option of letter grade or Pass/No Pass) |
| Theory of basic physiological concepts as they pertain to exercise training and the prescription of individual fitness programs. |
| Overview of the principles and techniques of teaching cardiovascular exercise. Includes both theory and practical instruction of cardiovascular exercise, special needs considerations, professional responsibilities and liabilities, group exercise design, treadmill, cycling and varieties of cardiovascular exercise. |

| **PE 41 — Techniques of Teaching Weight Training** | **PE 44 — Theory of Coaching** |
| 2 Units | 3 Units |
| 36 hours lecture | 54 hours lecture |
| Degree Applicable | Degree Applicable |
| (May be taken for option of letter grade or Pass/No Pass) | Degree Applicable, CSU, UC |
| Overview of the principles and techniques of teaching weight training. Includes muscle structure and function, training sequences, free weight and machine equipment, safety factors, including contraindications for exercise. |

| **PE 48 — Lifeguard Training** | **PE 45 — Lifeguard Training** |
| 3 Units | Degree Applicable |
| 54 hours lecture | Degree Applicable, CSU, UC |
| Degree Applicable | (May be taken for option of letter grade or Pass/No Pass) |
| Degree Applicable | Prerequisite: Ability to swim 500 yards without stopping American Red Cross requirements for Lifeguard Training. To receive certification, students must pass written exams with a minimum of 80% and pass all practical skills tests. Students who meet all qualifications will be certified by the American Red Cross in Lifeguard Training, First Aid and C.P.R for the Professional Rescuer. |

| **PE 50 — Academy Entrance Exam** | **PE 50 — Academy Entrance Exam** |
| .5 Unit | Degree Applicable |
| (May be taken for Pass/No Pass only) | Degree Applicable |
| 9 hours lecture | 9 hours activity |
| 9 hours activity | Physical ability examination specifically designed for candidates seeking admission into the ML SAC Fire Academy. Candidates must be approved by the Fire Technology Office prior to registration. |
### Course Descriptions

#### PHYSICAL SCIENCE

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSC 3</td>
<td>Energy Science</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides a broad technical understanding of the physical principles underlying the various forms of energy production, the role of energy in modern society, and an understanding of the wider environmental and societal impacts of different energy production technology choices. Course topics include: fossil fuels, nuclear energy, hydro, wind, solar energy, biofuels, and energy distribution and storage. Field trips required.</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSC 7</td>
<td>Physical Science</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designed for the non-science major. A primarily non-mathematical, conceptual approach to basic principles of physics and chemistry and their practical applications. Critical thinking is stressed in such topics as motion, heat, electricity and magnetism, sound and light, radioactivity, atomic theory, and modern physics. May be taken with Physical Sciences Laboratory for those students needing a laboratory science course.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSC 7L</td>
<td>Physical Science Laboratory</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: PHSC 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory topics will parallel the course content of Physical Science lecture.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PHYSICAL THERAPY AIDE

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHTH 81</td>
<td>Physical Therapy Aide</td>
<td>4 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: ANAT 50 or equivalent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role and skills of physical therapy aide. Procedures commonly performed by aids will be explained, demonstrated and practiced; includes terminology and interpersonal skills.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### PHYSICIAN ASSISTANT PREPARATORY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAP 101</td>
<td>Fundamentals for Physician Assistant Preparatory Program</td>
<td>8 Units</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>144 hours lecture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: PAP 102 taken concurrently</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepares students for entrance into Physician Assistant programs. Provides an overview of physician assistant fundamentals, ethics, financial aid, and interviewing techniques. Overviews physician assistant curriculum in family practice, pediatrics, orthopedics and various other topics presented in physician assistant programs. Analyzes stress coping mechanisms and time management for physician assistant students.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAP 102</td>
<td>Service Learning/Seminar for Physician Assistant Preparatory Program</td>
<td>6 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>216 hours lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: PAP 101 taken concurrently</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepares students for entrance into programs for the career of Physician Assistant. Examines and profiles community health care needs. Explores and directly allows students to interface with various patient populations. Requires weekend and overnight labs to various areas in California. Out-of-class projects required. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
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</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>PHYS 4A — Engineering Physics</th>
<th>5 Units</th>
<th>Deg. Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CAN PHYS08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN PHYS SEQ B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: PHYS 2AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: MATH 181 (may have been taken previously)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studies linear and rotational motion, forces, work, energy, oscillations, gravitation, properties of solids, and waves. Includes laboratory experience, with significant use of computers for data acquisition and analysis.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHYS 4B — Engineering Physics</th>
<th>5 Units</th>
<th>Deg. Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CAN PHYS12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN PHYS SEQ B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: PHYS 4A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: MATH 280 (may have been taken previously)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat, kinetic theory of gases, thermodynamics, electromagnetism (including DC and AC circuits), and Maxwell’s equations. Laboratory includes significant use of computers for data acquisition, analysis and simulation.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHYS 4C — Engineering Physics</th>
<th>5 Units</th>
<th>Deg. Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CAN PHYS14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN PHYS SEQ B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: PHYS 4B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluids, sound, electromagnetic waves, optics, diffraction and interference of waves, relativity, quantum physics, atomic and nuclear structure, nuclear reactions and elementary particles. Laboratory includes significant use of computers for data analysis.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHYS 99 — Special Projects in Physics</th>
<th>2 Units</th>
<th>Deg. Applicable, CSU</th>
</tr>
</thead>
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<tr>
<td>(May be taken four times for credit)</td>
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<tr>
<td>36 hours lecture</td>
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<tr>
<td>Corequisite: PHYS 1 or PHYS 2AG or PHYS 4A (may have been taken previously)</td>
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<tr>
<td>In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class. Students who repeat this course will improve skills by further instruction and practice.</td>
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### POLITICAL SCIENCE

<table>
<thead>
<tr>
<th>POLI 1 — Political Science</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>(CAN GOVT02)</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.</td>
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<thead>
<tr>
<th>POLI 1H — Political Science - Honors</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>(CAN GOVT02)</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td>Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code. An honors course designed to provide an enriched experience. Students may not receive credit for both POLI 1 and POLI 1H.</td>
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<thead>
<tr>
<th>POLI 2 — Political Science</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU, UC</th>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: POLI 1 or POLI 1H</td>
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<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
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<tr>
<td>Comparative study of constitutional principles, governmental institutions, political processes, and ideologies in selected countries.</td>
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<thead>
<tr>
<th>POLI 5 — Political Science Theory</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: POLI 1 or POLI 1H</td>
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<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
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<tr>
<td>Emphasizes political science concepts and theories, institutions, political change, and dynamics. Designed to prepare students majoring in political science for further study in the discipline by adequate background preparation in the overall study of politics.</td>
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<thead>
<tr>
<th>POLI 9 — Introduction to International Relations</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
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<tr>
<td>Acquaints students with the historical and political background of international relations. Attention is given to world politics, international organization and America’s place in world affairs.</td>
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<thead>
<tr>
<th>POLI 25 — Politics of the Mexican American</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td>Studies the impact that national, state and local governments have on the nation’s largest ethnic minority (the Latino Community). Examines the national and state constitutions and the impact they have had on the Hispanic Community as a whole (not just Mexican Americans). Studies American institutions as they pertain to the Chicano Community and examines the Chicano Community’s responses to the actions of the dominant political institutions.</td>
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<tr>
<th>POLI 30 — California State and Local Government</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU</th>
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<tbody>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td>Surveys the forces shaping California government and analyzes the operation of governmental institutions within California and the political and fiscal challenges facing California.</td>
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<thead>
<tr>
<th>POLI 35 — African American Politics</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU</th>
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<tbody>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td>Examines the methods and strategies employed by African-Americans in their quest to gain equal access and participation in American institutions. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.</td>
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### PSYCHOLOGY

<table>
<thead>
<tr>
<th>PSYC 1A — Introduction to Psychology</th>
<th>3 Units</th>
<th>Deg. Applicable, CSU, UC</th>
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<tr>
<td>(CAN PSY02)</td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td>Develops an understanding of the basic principles of behavior and mental processes. The subject matter and research methods of scientific psychology are presented. Topics include: history, biopsychology, sensation, perception, states of consciousness, learning, memory, forgetting, language, cognition, life-span development, gender, sexuality, stress, health, motivation, emotions, social psychology, abnormality, treatment and social and diversity issues.</td>
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</table>
Course Descriptions

PSYC 1A — Introduction to Psychology - Honors 3 Units
(CAN PSY02) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Develops an understanding of the basic principles underlying behavior and cognition. The subject matter and methods of scientific psychology are presented. Topics include scientific methodology, history, biopsychology, sensation, perception, states of consciousness, learning, memory, forgetting, language, cognition, intelligence, life-span development, personality, stress, health, motivation, emotions, psychopathology, psychotherapeutic approaches, and social factors. An honors course designed to provide an enriched experience. Students may not receive credit for both PSYC 1A and PSYC 1AH.

PSYC 1B — Biological Psychology 3 Units
(CAN PSY10) Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH
Advisory: Eligibility for ENGL 1A
Biological mechanisms of behavior; introduction of evolution and genetics with emphasis on neuronal and synaptic transmission. Develops a conceptual framework and awareness of the scientific method. Stresses specific methods of investigation for the discipline.

PSYC 3 — Introduction to Research Methods in Psychology 4 Units
(CAN PSY08) Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: PSYC 1A or PSYC 1AH and PSYC 10 or MATH 110 or MATH 110H
Advisory: ENGL 1A
Research methods in the area of social science, especially in the discipline of psychology. American Psychological Association (APA) publication style taught and used with lab experience. Includes systematic observation, survey development, correlational studies, and design, execution and analysis of experiments.

PSYC 5 — Psychology of Reasoning and Problem Solving 3 Units
Degree Applicable, CSU
54 hours lecture
The nature of critical thinking; models and strategies; common fallacies of reasoning; self-regulation in the thinking process; application of critical thinking to specific areas, such as the comparison of cognitive and information-processing models; more specifically: memory, thinking and problem solving, creativity, learning and forgetting, decision making and reasoning.

PSYC 10 — Statistics for the Behavioral Sciences 4 Units
(CAN PSY06) Degree Applicable, CSU, UC
54 hours lecture
54 hours lab
Prerequisite: PSYC 1A or SOC 1 and eligibility for MATH 110
Statistical principles of the behavioral sciences emphasizes research design, scales of measurement, distributions, graphing, descriptive statistics, measures of central tendency, measures of variability, z-test, independent and dependent t-tests, inferential statistics, confidence intervals, linear correlations and regression, and analysis of variance, including multivariate factorial designs and chi square analyses. Statistical analyses through the use of computerized statistical packages are interpreted through lab experience.

PSYC 14 — Developmental Psychology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 1A
Examines the psychological principles of human development across the lifespan, from birth to death. This course does not fulfill the Title 22 requirements for Child Development majors.

PSYC 17 — Introduction to Human Services 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH or SOC 1 or SOC 1H
History, philosophy and development of human services in America. Explores careers in human services, self-exploitation in matching personal and professional interests to entry levels of human services employment.

PSYC 19 — Abnormal Psychology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH
Application of principles of general psychology to the field of psychopathology. Major classifications of psychiatric disorders, their causes and treatment modalities. Includes theoretical perspectives used in abnormal psychology.

PSYC 25 — The Psychology of Women 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: PSYC 1A or ENGL 1A (taken prior or concurrently)
A bio-cultural analysis of women. Emphasis will be placed on biological, psychological and sociological data related to principles of development, socialization, learning, motivation, emotion and perception.

PSYC 26 — Psychology of Sexuality 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Explores the factors involved in establishing and maintaining intimate sexual relationships. The focus of the course is on the findings of social psychologists concerning sexuality and love relationships in our culture.

PSYC 33 — Psychology for Effective Living 3 Units
Degree Applicable, CSU
54 hours lecture
Emphasis on comprehension and application of psychological principles to interpersonal relationships, personal growth, sexuality, vocation, marriage, parenting, aging, and other circumstances encountered in the life cycle. Considers personality development and psychological disorders as well as therapeutic approaches.

PSYC 40 — Introduction to Interviewing and Counseling 3 Units
Degree Applicable
54 hours lecture
Provides a basic overview of the helping processes. Stresses application of counseling theories, helping skills, and consultation theories to allow exploration of self as a helper and learn facilitating skills to bring about change. Emphasis on establishing rapport, obtaining information and developing a supportive relationship in a variety of mental health settings. Students may not receive credit for both PSYC 40 and MENT 40.

PSYC 50 — Psychology of Human Relations 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Develops students’ understanding of themselves and their social relationships. Emphasizes self-evaluation, experience in small groups, becoming sensitive to one’s own feelings and to the feelings of others and the contributions of the behavioral sciences as resources for effective living.

PSYC 99 — Special Projects in Psychology 2 Units
Degree Applicable
(May be taken four times for credit)
36 hours lecture
To offer selected students recognition for their academic interest and ability and the opportunity to explore their disciplines to greater depth, the various departments offer Special Project courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

RADIO - TELEVISION

R-TV 01 — Introduction to Broadcasting 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Survey course of the film and electronic media industries, concentrating on the United States. This includes cultural, historical, social, legal and economic issues in motion pictures, radio and television broadcasting, cable, satellite, internet and related technologies.
Students will review the basics of the production studio and its components. They will also develop an understanding of the workings of voice and diction as they pertain to broadcasting and learn to evaluate the effectiveness of voice work done by others. Emphasis will also be placed on developing the content of on-air shows suitable to the Spanish-language market. Students will review the basics of the production studio and its components.

R-TV 02A — On-Air Personality Development-Spanish Market 3 Units
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)
Covers developing a broadcast voice, style and understanding of the business for all areas of Spanish-language broadcasting, including disc jockey, newscaster and voice over artist. Students will also develop an understanding of the workings of voice and diction as they pertain to broadcasting and learn to evaluate the effectiveness of voice work done by others. Emphasis will also be placed on developing the content of on-air shows suitable to the Spanish-language market. Students will review the basics of the production studio and its components. The course is taught in English.

R-TV 03 — Sportscasting and Reporting 1.5 Units
27 hours lecture
Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)
Covers in-studio sportscasting, interviewing, field reporting and play-by-play for radio and television. Students will learn the legalities and ethics of covering sports, and how to work with professional sports teams and equipment technicians. Practical experience will be provided through coverage of Mt. SAC's athletic teams. Students who repeat this course will improve skills through further instruction and practice.

R-TV 04 — Broadcast News Field Reporting 3 Units
54 hours lecture
Students will learn how to research and cover various news events including working with police and other emergency personnel, interviewing techniques and story developments. Emphasis will be placed on legal and ethical issues concerning news coverage.

R-TV 05 — Radio-TV Newswriting 3 Units
54 hours lecture
Writing, editing and reporting radio and TV news, utilizing the Associated Press Wire Service, AP Newsboss software. Students will rewrite news wire copy as well as create stories from interviews and from covering news events, including the incorporation and selection of sound bites from actualities. Emphasis will be on factual and concise content and the ability to work under deadline.

R-TV 06 — Broadcast Traffic Reporting 1.5 Units
27 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
Covers using demographic research to target specific audiences, truth in advertising, slogan and campaign development, character creation, commercial formats, and the use of visual and audio appeals. Includes using demographic research to target specific audiences, truth in advertising, slogan and campaign development, character creation, commercial formats, and the use of visual and audio appeals. Material is presented from a producer/artist point of view and is intended for those pursuing a career in film, television, and other electronic visual media, presenting material from the producer/artist point of view.

R-TV 07A — Beginning Commercial Voice-Overs 3 Units
54 hours lecture
Corequisite: R-TV 01
Advisory: R-TV 01
Development of voices for radio and television commercials, character voices, narrations, and animation. Also covers auditioning, working with agents and agencies, and understanding voice-over contracts.

R-TV 07B — Advanced Commercial Voice-Overs 3 Units
36 hours lecture
54 hours lab
Corequisite: R-TV 01 (may have been taken previously)
Operation of standard radio production equipment for both tape-based and digital production utilizing ProTools technology. Production skills concentrate on the use of voice, music and sound effects applied to a variety of elements including commercials and newscasts.

R-TV 08 — KSAS Radio Studio Operations 2 Units
May be taken for Pass/No Pass only
Corequisite: R-TV 01 (may have been taken previously)
A training course for positions at Mt. SAC's on-campus radio station, KSAS. Includes programming, production procedures, news, DJ and promotion, and FCC rules and regulations. Recommended for students wanting to become a part of KSAS and also offers an excellent overview of the components of a professional radio station.

R-TV 09 — Broadcast Sales and Promotion 3 Units
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
Covers the strategies and legalities of advertising time sales for radio and television including FCC requirements, demographic targeting, marketing strategies, and working with agencies. The course also covers promotions, including the creation of contests and promotional campaigns.

R-TV 10 — Radio Management and Programming 3 Units
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
An overview of the various techniques of programming a radio station, including various formats of music, news, talk and sports. Students will also look at the role of management at a station including budgeting, unions, ratings and FCC responsibilities.

R-TV 11A — Beginning Radio Production 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Corequisite: R-TV 01 (may have been taken previously)
Build upon the basic understanding of linear and non-linear recording, editing, and mixing as learned in R-TV 11A. Develop an understanding of the core concepts and skills required to work in a professional recording studio environment using Pro Tools, the industry standard for state of the art digital work stations.

R-TV 11B — Advanced Radio Production 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: R-TV 11A
Build up the basic understanding of linear and non-linear recording, editing, and mixing as learned in R-TV 11A. Develop an understanding of the core concepts and skills required to work in a professional recording studio environment using Pro Tools, the industry standard for state of the art digital work stations.

R-TV 12 — Commercial Copywriting 3 Units
Degree Applicable
54 hours lecture
Advisory: R-TV 01
Covers the creation and production of radio and television commercials. Includes using demographic research to target specific audiences, truth in advertising, slogan and campaign development, character creation, commercial formats, and the use of visual and audio appeals.

R-TV 14 — Media Aesthetics 3 Units
Degree Applicable
54 hours lecture
Prerequisite: ENGL 67
Media aesthetics for television and film presentation. Stresses critical, theoretical and practical analysis. Material is presented from a producer/artist point of view and is intended for those pursuing a career in film, television, and other electronic visual media, presenting material from the producer/artist point of view.
Course Descriptions

R-TV 15 — Broadcast Business Practices 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
A basic overview of the radio and television industry as a business for
profit. Basic techniques are discussed and examined in negotiating with
station management and agents as well as dealing with contracts,
residuals, re-use rights, mergers, protection of intellectual properties,
union representation and FCC law. Professional ethics and broadcasters’
responsibilities to their audiences are also discussed.

R-TV 16 — Broadcast Career Preparation 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 11A or R-TV 19A
Students taking this class will prepare their audio and/or video demo
tapes and resumes in order to obtain and maintain an entry-level job in
the broadcast industry. Emphasis will be placed on employment
searches, interview techniques, involvement in professional
organizations and business strategies.

R-TV 17 — Internet Radio and Podcasting 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)
Covers all aspects of Internet broadcasting and podcasting including
programming, announcing, promotions, and legal and copyright issues
through the use of an actual Internet radio station.

R-TV 18 — Writing for Television/Film 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: R-TV 01
Characterization, visualization, structure and form in various types of
writing for television and motion picture production.

R-TV 19A — Beginning Television Production 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Corequisite: R-TV 01 (may have been taken previously)
Basic video production using single-camera and film-style
instruments.

R-TV 19B — Advanced Television Production 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: R-TV 19A
Advanced video production emphasizing film-style
aesthetics and production.

R-TV 20 — Television News Production 3 Units
Degree Applicable
54 hours lecture
18 hours lab
Prerequisite: R-TV 05 or R-TV 11A or R-TV 19A
Advisory: JOUR 111
TV newscasting, writing, announcing, production, direction, graphics,
and editing skills both in and out of the studio.

R-TV 21 — Remote Television Production and Engineering 3.5 Units
Degree Applicable
54 hours lecture
36 hours lab
Prerequisite: R-TV 19A
Students learn remote video production using both multi-camera and
single-camera techniques. Topics include video engineering, directing,
and remote production truck setup.

R-TV 22 — Editing for Film and Television 3 Units
Degree Applicable
54 hours lecture
Aesthetics and use of non-linear editing software for film and
teaching.

R-TV 24 — Current Issues in Entertainment Law 3 Units
Degree Applicable
54 hours lecture
Advisory: JOUR 111
Overview of the major legal and FCC regulatory issues facing
broadcasting, cable and developing media. Also covers the growing
importance of intellectual property law as it applies to digital media
and the Internet.

R-TV 27 — Radio Drama 3 Units
Degree Applicable
54 hours lecture
Prerequisite: R-TV 07
The practical and artistic skills needed for the performance of radio
drama such as voicing, directing, writing and sound design combined
with broadcasting history and communication theory.

R-TV 30 — Introduction to Careers in Entertainment 2 Units
Not Degree Applicable
36 hours lecture
An overview of radio and television as a potential career. Examines the skills
and training needed to work in media, such as radio, television and film in such areas
as on-air, news anchor/reporter, sports reporter, commercial voice-over
artist, production director, writer, producer and director.

R-TV 31 — History of Radio DJs 3 Units
Degree Applicable
54 hours lecture
Traces the history of radio through study of the most influential
radio disc jockeys in broadcasting history.

R-TV 33 — Radio Show Producer Techniques and Procedures 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01
Covers the behind-the-scenes aspects of producing a radio show, with
special emphasis on generating ideas for specific audiences, identifying
and booking guests and preparing interviews for broadcast.

R-TV 34 — On-Camera Performance 1.5 Units
Degree Applicable
27 hours lecture
Advisory: R-TV 01
On-camera techniques used in news and sports anchoring and
reporting including make-up, hair, wardrobe and overall presentation.

R-TV 97A — Radio/Entertainment Industry Seminar 1 Unit
Degree Applicable
(May be taken for option of credit)
18 hours lecture
Prerequisite: R-TV 01 and any three R-TV units
Corequisite: R-TV 97B
San Antonio College Radio and Entertainment Industry Seminar
A capstone course for students preparing for careers in the
radio/entertainment industry. Students share and critique experiences
emphasizing professionalism and problem-solving techniques related to
their internship experience. Students who repeat this course will
improve skills through further instruction and practice.

R-TV 97B — Radio/Entertainment Industry Internship 1 Unit
Degree Applicable
(May be taken for option of credit)
75 hours lab
Prerequisite: R-TV 01 and any other three R-TV units
Corequisite: R-TV 97C
Provides the student with internship experience in the
radio/entertainment industry in order to strengthen and broaden
his/her skills in the workplace. A minimum of 75 paid or 60 non-paid
clock hours per semester of supervised work is required for each unit of
credit. It is recommended that the hours per week be equally
distributed throughout the semester. Students who repeat this course
will improve skills through further instruction and practice.

R-TV 97C — KSAK Radio/Internet Radio Internship 1 to 2 Units
Degree Applicable
(May be taken for option of credit)
75 to 150 hours lab
Prerequisite: R-TV 01 and any other three R-TV units
Corequisite: R-TV 97B
Regular and continuing experience in the operation of the College radio
station or the college Internet station. Students may select roles
involved with on-air announcing, production, programming and news. A
minimum of 75 paid or 60 non-paid clock hours per semester of
supervised work is required for each unit of credit. It is recommended that
the hours per week be equally distributed throughout the
semester. Students who repeat this course will improve skills through
further instruction and practice.
The instructor to ensure that proficiencies are enhanced. This course will make individual contracts of a more advanced nature with depend on the particular project under consideration. Students repeating through further experience.

UNIT FOR CREDIT. Students who repeat this course will improve skills related to classroom instruction, at an approved work site. A minimum of 60 unpaid or 75 paid hours of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

Provides students with on-the-job experience in the film or TV industry, Production. Students share and critique experiences emphasizing ethics and the legal considerations of health care.

Prerequisite: Completion of 12 Television or Film course units or the
75 to 225 hours lab
Prerequisite: RAD 61A
Practical application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructors. Emphasis on chest, upper and lower limbs, from digits to shoulder, from toes to knee, abdomen, and kidney, ureters, and bladder (KUB).

RAD 52A — Techniques of Radiologic Technology 2.5 Units
(May be taken for Pass/No Pass only)
140 hours lab
Prerequisite: RAD 52B
Continued application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructor. Emphasis on upper and lower limbs.

RAD 53 — Techniques of Radiologic Technology 5 Units
(May be taken for Pass/No Pass only)
236 hours lab
Prerequisite: RAD 52B
Corequisite: RAD 62A
Practical application of radiographic theories and principles in an affiliated hospital under direct supervision of clinical personnel and college instructors. Emphasis on abdominal and thoracic viscera, spine, common contrast exams, and generalized skull radiography.

RAD 54 — Techniques of Radiologic Technology 3 Units
(May be taken for Pass/No Pass only)
150 hours lab
Prerequisite: RAD 62A
Practical experience in a hospital setting under the supervision of clinical personnel and college instructors. Emphasis on skull, portable radiography, surgical studies and the development of nursing skills as it relates to radiologic technology.

RAD 55A — Techniques of Radiologic Technology 7 Units
(May be taken for Pass/No Pass only)
360 hours lab
Corequisite: RAD 63
Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on cytograms, urealphograms, foreign body localization, tomography, and venography.

RAD 55B — Techniques of Radiologic Technology 2.5 Units
(May be taken for Pass/No Pass only)
140 hours lab
Prerequisite: RAD 55A
Continued experience in a hospital setting under guidance of clinical personnel and college instructors. Emphasis on E.R.C.P., sialogram, retrograde and other advanced procedures.
### COURSE DESCRIPTIONS

**RAD 56 — Techniques of Radiologic Technology**  
7 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 05, MEDI 01, RAD 061A
- **Corequisites:** RAD 57, RAD 62A, RAD 62B, RAD 62C
- **Corequisites for Clinical Component:** RAD 55, RAD 57, RAD 62B, RAD 62C
- **Clinical Component:** 360 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 57 — Techniques of Radiologic Technology**  
4 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 56, MEDI 61B, RAD 61C
- **Corequisites:** RAD 57, RAD 62A, RAD 62B, RAD 62C
- **Corequisites for Clinical Component:** RAD 55, RAD 57, RAD 62B, RAD 62C
- **Clinical Component:** 232 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 60A — Theory of Radiologic Technology**  
4 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 50, MEDI 75
- **Corequisite:** RAD 60B
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 60B — Radiographic Positioning**  
3 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 60A
- **Corequisites:** RAD 60B, RAD 61B, RAD 61C
- **Corequisites for Clinical Component:** RAD 55, RAD 57, RAD 62B, RAD 62C
- **Clinical Component:** 72 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 60C — Radiologic Technology Seminar**  
1 Unit  
Degree Applicable, CSU

- **Prerequisites:** RAD 60B
- **Corequisites:** RAD 60B, RAD 61B, RAD 61C
- **Clinical Component:** 24 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 61 — Theory of Radiologic Technology**  
4 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 61A
- **Corequisite:** RAD 61A
- **Corequisites for Clinical Component:** RAD 55, RAD 57, RAD 62B, RAD 62C
- **Clinical Component:** 72 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 61A — Theory of Radiologic Technology**  
4 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 50, MEDI 75
- **Corequisite:** RAD 61A
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 61B — Radiographic Positioning**  
3 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 61A
- **Corequisites:** RAD 61A, RAD 61B, RAD 61C
- **Clinical Component:** 54 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 61C — Radiologic Technology Seminar**  
1 Unit  
Degree Applicable, CSU

- **Prerequisites:** RAD 61A
- **Corequisites:** RAD 61A, RAD 61B, RAD 61C
- **Clinical Component:** 24 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 62A — Theory of Radiologic Technology**  
4 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 61A
- **Corequisites:** RAD 61A, RAD 61B, RAD 61C
- **Clinical Component:** 72 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 62B — Radiographic Positioning**  
3 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 62A
- **Corequisites:** RAD 62A, RAD 61B, RAD 61C
- **Clinical Component:** 54 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 62C — Radiologic Technology Seminar**  
1 Unit  
Degree Applicable, CSU

- **Prerequisites:** RAD 62A
- **Corequisites:** RAD 62A, RAD 61B, RAD 61C
- **Clinical Component:** 18 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 63 — Theory of Radiologic Technology**  
4 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 63A
- **Corequisites:** RAD 63A, RAD 61B, RAD 61C
- **Clinical Component:** 72 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 64 — Theory of Radiologic Technology**  
4 Units  
Degree Applicable, CSU

- **Prerequisites:** RAD 64A
- **Corequisites:** RAD 64A, RAD 61B, RAD 61C
- **Clinical Component:** 72 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**RAD 65 — Speed Reading: Methods and Applications**  
1 Unit  
Not Degree Applicable

- **Prerequisites:** Satisfactory score on appropriate placement test
- **Corequisites:** RAD 65A
- **Clinical Component:** 18 hours lecture, 18 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**READING**

**READ 70 — Improving Reading Comprehension**  
3 Units  
Not Degree Applicable

- **Prerequisites:** Satisfactory score on appropriate placement test
- **Corequisites:** READ 70A
- **Clinical Component:** 54 hours lecture, 24 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**READ 80 — Developing Reading Comprehension**  
3 Units  
Not Degree Applicable

- **Prerequisites:** Satisfactory score on appropriate placement test
- **Corequisites:** READ 80A
- **Clinical Component:** 54 hours lecture, 24 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**READ 90 — Preparing for College Reading**  
3 Units  
Not Degree Applicable

- **Prerequisites:** Satisfactory score on appropriate placement test
- **Corequisites:** READ 90A
- **Clinical Component:** 54 hours lecture, 24 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**READ 100 — Analysis and Critical Reading**  
3 Units  
Degree Applicable, CSU

- **Prerequisites:** Satisfactory score on appropriate placement test
- **Corequisites:** READ 100A
- **Clinical Component:** 54 hours lecture, 24 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

**READ 110 — Reading Tutoring for Elementary Students Through Service Learning**  
3 Units  
Not Degree Applicable

- **Prerequisites:** Satisfactory score on appropriate placement test
- **Corequisites:** READ 110A
- **Clinical Component:** 36 hours lecture, 54 hours lab
- **Concepts:** Radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.
RESPIRATORY THERAPY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Corequisites/Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESD 50</td>
<td>Theory and Principles of Respiratory Therapy</td>
<td>2</td>
<td>Corequisite: RESD 51A and RESD 52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Properties of liquids, gases, kinetic theory of gases, units</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>of measurements, gas laws, lung mechanics, flow of fluids,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>and pressure measuring devices used in respiratory therapy.</td>
</tr>
<tr>
<td>RESD 51A</td>
<td>Respiratory Therapy Science</td>
<td>4</td>
<td>Corequisite: RESD 50 and RESD 52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Basic principles of respiratory therapy equipment.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Emphasis placed on methods of administration of therapy and</td>
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<td></td>
<td>application of specialized equipment in the clinical setting.</td>
</tr>
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<td></td>
<td>Basic respiratory physiology and oxygen transport.</td>
</tr>
<tr>
<td>RESD 51B</td>
<td>Respiratory Therapy Science</td>
<td>4</td>
<td>Corequisite: RESD 50 and RESD 52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Clinical practice in the hospital setting. The student is</td>
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<td>expected to perform basic therapeutic modalities mastered in</td>
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<td></td>
<td></td>
<td>RESD 51A and RESD 51B and apply concepts learned in the</td>
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<td></td>
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<td>first three semesters of the Respiratory Therapy Program.</td>
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<td>Inclusion of therapeutic modalities and diagnostic procedures</td>
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<td>performed in the general management and treatment of adult</td>
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<tr>
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<td></td>
<td></td>
<td>and pediatric patients requiring respiratory care are done.</td>
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<td></td>
<td></td>
<td>Emphasis of intensive care and mechanical ventilator procedures are introduced.</td>
</tr>
<tr>
<td>RESD 52</td>
<td>Pulmonary Anatomy and Physiology</td>
<td>3</td>
<td>Corequisite: RESD 50 and RESD 52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Anatomy and physiology of the cardiopulmonary, neurological</td>
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<td>and renal systems emphasizing clinical application of</td>
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<td></td>
<td></td>
<td></td>
<td>physiological concepts.</td>
</tr>
<tr>
<td>RESD 53</td>
<td>Cardiopulmonary Pathophysiology</td>
<td>3</td>
<td>Corequisite: RESD 51B</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Anatomical alterations of the lungs, etiology, overview of</td>
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<td>the cardiopulmonary clinical manifestations, and general</td>
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<td>management of commonly encountered cardiopulmonary diseases.</td>
</tr>
<tr>
<td>RESD 55</td>
<td>Adult Respiratory Intensive Care</td>
<td>3</td>
<td>Corequisite: RESD 51B</td>
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<tr>
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<td></td>
<td>Provides an in-depth approach to the current modalities and</td>
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<td>monitoring tools of respiratory care. Emphasis is on the</td>
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<td>adult patient who is critically ill with primary and/or</td>
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<td>secondary cardiopulmonary failure.</td>
</tr>
<tr>
<td>RESD 56A</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
<td>Corequisite: RESD 55 and RESD 58</td>
</tr>
<tr>
<td></td>
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<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>RESD 56B</td>
<td>Techniques of Respiratory Therapy</td>
<td>6</td>
<td>Corequisite: RESD 55 and RESD 58</td>
</tr>
<tr>
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<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>RESD 56C</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
<td>Corequisite: RESD 55 and RESD 58</td>
</tr>
<tr>
<td></td>
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<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>RESD 57A</td>
<td>Special Procedures for Respiratory Care</td>
<td>1.5</td>
<td>Corequisite: RESD 50</td>
</tr>
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<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>27 hours lecture</td>
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<tr>
<td>RESD 58</td>
<td>Neonatal Intensive Care</td>
<td>3</td>
<td>Corequisite: RESD 56A and RESD 55</td>
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<tr>
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<td>Emphasizes neonatal pathophysiologies, etiologies, and</td>
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<td>ramifications. Encompasses the newest techniques in monitoring</td>
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<td>equipment used in the treatment and maintenance of the</td>
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<td>premature infant. Designed primarily for respiratory therapists</td>
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<td></td>
<td></td>
<td></td>
<td>and nurses.</td>
</tr>
<tr>
<td>RESD 59</td>
<td>Respiratory Therapeutic Modalities</td>
<td>3</td>
<td>Corequisite: RESD 56A and RESD 55</td>
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<tr>
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<td>Advanced practitioner skills development pertinent to the</td>
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<td></td>
<td></td>
<td></td>
<td>application and function of respiratory therapy equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>with emphasis on the machine-patient interface.</td>
</tr>
<tr>
<td>RESD 60</td>
<td>Comprehensive Pulmonary Assessment</td>
<td>2</td>
<td>Corequisite: RESD 51B and RESD 55</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Techniques of pulmonary assessment including history taking,</td>
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<td>clinical laboratory data, pulmonary function testing data,</td>
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<td></td>
<td>chest X-rays, physician exam findings, arterial blood gas</td>
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<td>data, hemodynamic monitoring data, exhaled gas monitoring</td>
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<td>data, nutrition, and synopsis of findings: extensive practice</td>
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<td>in collecting and recording this data.</td>
</tr>
<tr>
<td>RESD 61</td>
<td>Current Issues in Respiratory Care</td>
<td>3</td>
<td>Corequisite: RESD 56A and RESD 55</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Explores recently developed health care techniques and</td>
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<td></td>
<td></td>
<td>strategies for diagnostics, assessment, and therapeutics and</td>
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<td></td>
<td></td>
<td></td>
<td>their impact on respiratory therapists.</td>
</tr>
</tbody>
</table>
### Course Descriptions

#### SERVICE LEARNING

<table>
<thead>
<tr>
<th>SL  1 — Service Learning/Seminar for Health Occupations</th>
<th>6 Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>216 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare students with service experiences in health occupations. Examines and profiles community health care needs. Interfaces with various patient populations. Weekend and overnight labs to various areas within California may be offered. Out-of-class projects required.</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SL  2 — Linked Service Learning</th>
<th>1 Unit</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Links service learning with content-specific courses across the college curriculum. Allows students to explore interests or career objectives through community involvement and service. Requires arranged hours of community-based activity. Must be enrolled concurrently in a course with a service learning link.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SL  3 — Service Learning/Seminar in Community Involvement</th>
<th>3 Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>108 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examines and profiles community needs through service learning. Explores and allows students to directly interface with community populations. Permits students the opportunity to explore various career options through community service. Enriches personal and career development through understanding of civic and social issues.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SL  4 — Service Learning and Community Involvement</th>
<th>1 Unit</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 hours lab</td>
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<td></td>
</tr>
<tr>
<td>Examines and addresses community needs through service learning. Students directly interface with community populations to identify needs and implement activities. Permits exploration of service-oriented career options. Enriches personal and career development through understanding of civic and social issues.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SL  99 — Special Projects in Service Learning</th>
<th>1 Unit</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
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<tr>
<td>36 hours lab</td>
<td></td>
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<tr>
<td>In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, from time to time various departments offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class.</td>
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</tr>
</tbody>
</table>

#### SIGN LANGUAGE, INTERPRETING

<table>
<thead>
<tr>
<th>SIGN 99 — Special Projects in Sign Language/Interpreting</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 81 or SIGN 102 or equivalent signing ability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further study of fundamentals of American Sign Language focusing on comprehension skills; modeling of grammatical structures; general information about Deaf Culture.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SIGN 101 — American Sign Language 1</th>
<th>4 Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 80 or SIGN 101 or equivalent fluency</td>
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<td></td>
</tr>
<tr>
<td>Fundamentals of American Sign Language. Preparation for visual/gestural communication followed by intensive work on comprehension skills.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SIGN 102 — American Sign Language 2</th>
<th>4 Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 81 or SIGN 102 or equivalent fluency</td>
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<td></td>
</tr>
<tr>
<td>Further study of American Sign Language focused on developing expressive skills.</td>
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</table>

<table>
<thead>
<tr>
<th>SIGN 103 — American Sign Language 3</th>
<th>4 Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 81 or SIGN 102 or equivalent fluency</td>
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<tr>
<td>Further study of American Sign Language focused on developing expressive skills.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SIGN 104 — American Sign Language 4</th>
<th>4 Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 82A or SIGN 103 or equivalent fluency</td>
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<td></td>
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<tr>
<td>Emphasis on expressive/conversational skills in American Sign Language.</td>
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<thead>
<tr>
<th>SIGN 105 — American Sign Language 5</th>
<th>4 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>72 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 82B or SIGN 104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced American Sign Language communication skills with emphasis on signing descriptive narratives and strengthening conversational skills. Target language practice includes holding discussions and making decisions. Further exposure to Deaf cultural components.</td>
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<thead>
<tr>
<th>SIGN 108 — Fingerspelling</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td>Prerequisite: SIGN 87 or SIGN 102</td>
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<tr>
<td>Skill development in receptive and expressive fingerspelling.</td>
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<thead>
<tr>
<th>SIGN 201 — Deaf Perspectives</th>
<th>3 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>Prerequisite: SIGN 103</td>
<td></td>
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<tr>
<td>Comprehensive study of Deaf people throughout their lives, including points of view from a variety of Deaf and hard-of-hearing people and from their relatives, educators, and other professionals in the field.</td>
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<thead>
<tr>
<th>SIGN 202 — American Deaf Culture</th>
<th>3 Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td>American Deaf cultural norms, values, mores and institutions.</td>
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</table>

<table>
<thead>
<tr>
<th>SIGN 210 — American Sign Language Structure</th>
<th>3 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td>Prerequisite: SIGN 104</td>
<td></td>
<td></td>
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<tr>
<td>Corequisite: SIGN 210</td>
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<tr>
<td>American Sign Language and English translation by comparing texts in both languages.</td>
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</table>

<table>
<thead>
<tr>
<th>SIGN 220 — Translation: American Sign Language/English</th>
<th>3 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 203, Eligibility for ENGL 1A</td>
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</tr>
<tr>
<td>Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SIGN 221 — American Sign Language/Seminar for Health Occupations</th>
<th>6 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>72 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 80 or SIGN 101 or equivalent fluency</td>
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</tr>
<tr>
<td>Comprehensive study of Deaf people throughout their lives, including points of view from a variety of Deaf and hard-of-hearing people and from their relatives, educators, and other professionals in the field.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SIGN 222 — American Sign Language Structure</th>
<th>3 Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Sign Language and English translation by comparing texts in both languages.</td>
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<table>
<thead>
<tr>
<th>SIGN 223 — Principles of Interpreting</th>
<th>3 Units</th>
<th>Degree Applicable, CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>54 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: SIGN 203, Eligibility for ENGL 1A</td>
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<tr>
<td>Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter’s role and ethical standards.</td>
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<thead>
<tr>
<th>SIGN 225 — Ethical Decision Making for Interpreters</th>
<th>2 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 hours lecture</td>
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<tr>
<td>Prerequisite: SIGN 223</td>
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<tr>
<td>Development of ethical decision-making skills through the analytical construct of the Demand/Control Schema for interpreting work. Topics include professional work effectiveness and professional wellness.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>SIGN 227</td>
<td>Cognitive Processing for Interpreters</td>
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<td></td>
<td>The development of cognitive processing skills necessary for interpreting between ASL and English. Constructing and deconstructing meaning, memory, listening and attending will be covered. Includes memory building, restating, cloze, and listening exercises.</td>
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<tr>
<td>SIGN 231</td>
<td>Interpreting</td>
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<tr>
<td></td>
<td>Skill development in interpreting from American Sign Language (ASL) to English and English to ASL, focusing on interpreting in the consecutive mode. Processing skills and task management will be emphasized.</td>
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<tr>
<td>SIGN 232</td>
<td>Advanced Interpreting</td>
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<tr>
<td></td>
<td>Refines basic interpreting skills with emphasis on simultaneous interpreting. Intensive skill development in interpreting from English to American Sign Language (ASL) and ASL to English.</td>
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<tr>
<td>SIGN 238</td>
<td>Oral Transliteration</td>
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<td></td>
<td>Learn skills to facilitate communication for Deaf and hard-of-hearing people who use speechreading and speech to communicate.</td>
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<tr>
<td>SIGN 239</td>
<td>Practicum</td>
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<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>Develops and hones interpreting skills in supervised interpreting situations.</td>
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<tr>
<td>SIGN 240</td>
<td>Vocabulary Building for Interpreters</td>
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<td></td>
<td>Vocabulary expansion in both ASL and English with the goal of improving interpretations between these two languages. The course will focus on context, semantics, and parts of speech in determining culturally appropriate vocabulary choices. Interpreting students will learn to apply their growing vocabularies to ASL-English interpretations.</td>
</tr>
<tr>
<td>SIGN 250</td>
<td>Interpreting with Classifiers</td>
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<tr>
<td></td>
<td>An overview of the common forms of ASL classifier predicates. Developing skill in establishing figure/ground, visualization, and shifting perspectives. Applying classifier predicates within the context of interpreting from English into American Sign Language.</td>
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<tr>
<td>SIGN 260</td>
<td>Video Interpreting</td>
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<td></td>
<td>Video interpreting and skill development as a video interpreter. Includes video relay interpreting (VRS), video remote interpreting (VRI), technical components used in video interpreting, and ethical consideration of the video interpreter. Lab portion of the course will focus on skill development in video interpreting.</td>
</tr>
</tbody>
</table>

### Sociology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1</td>
<td>Sociology</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(CAN SOC002) 54 hours lecture</td>
</tr>
<tr>
<td></td>
<td>A systematic study of human relations and social structures which emphasizes the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change.</td>
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<tr>
<td>SOC 1H</td>
<td>Sociology - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(CAN SOC002) 54 hours lecture</td>
</tr>
<tr>
<td></td>
<td>A systematic study of human relations and social structures which emphasizes the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 1 and SOC 1H.</td>
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<tr>
<td>SOC 2</td>
<td>Sociology</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(CAN SOC004) 54 hours lecture</td>
</tr>
<tr>
<td></td>
<td>The application of basic sociological principles and concepts to the study and understanding of social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems.</td>
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<tr>
<td>SOC 2H</td>
<td>Sociology - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
<td>(CAN SOC004) 54 hours lecture</td>
</tr>
<tr>
<td></td>
<td>A systematic study of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society.</td>
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<tr>
<td>SOC 5</td>
<td>Introduction to Criminology</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture</td>
</tr>
<tr>
<td></td>
<td>A scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society.</td>
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<tr>
<td>SOC 5H</td>
<td>Introduction to Criminology - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>A scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency. Includes an analysis of the theoretical perspectives of the sociology of deviance on the criminal justice system and the impact of crime on society. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 5 and SOC 5H.</td>
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<tr>
<td>Course Code</td>
<td>Title</td>
<td>Units</td>
<td>Credits</td>
<td>Description</td>
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| SOC 14     | Marriage and the Family                                              | 3     | Degree Applicable, CSU, UC | (CAN FCS12) 54 hours lecture
Prerequisite: Eligibility for ENGL 68
Explores the sociological and psychological functions of dating, engagement, weddings, marriage, and the family. Focuses on influences and theories of mate selection, love, and interpersonal attraction. Covers trends and changes in marriage and the family and gender roles. Explores different types of families and family patterns. Covers factors leading to divorce and influences on the divorce rate, remarriage rate, and step-families. Explores family life-cycle adjustments including parenthood, mid-life, grandparenthood, and widowhood. Analyzes characteristics of "successful" marriages and families. |
| SOC 20H    | Sociology of Ethnic Relations - Honors                               | 3     | Degree Applicable, CSU, UC | 54 hours lecture
Prerequisite: Acceptance into the Honors Program
Provides insight to the culture diversity that exists in the United States. An extensive study of four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) is provided with emphasis placed on historical experiences, contemporary circumstances and future trends. Origins and theories of stereotypes, prejudices and discrimination are explored along with an analysis of racial stratification. |
| SOC 20     | Sociology of Ethnic Relations                                         | 3     | Degree Applicable, CSU, UC | 54 hours lecture
Provides insight to the culture diversity that exists in the United States. An extensive study of four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) is provided with emphasis placed on historical experiences, contemporary circumstances and future trends. Origins and theories of stereotypes, prejudices and discrimination are explored along with an analysis of racial stratification. |
| SOC 99     | Special Projects in Sociology                                        | 2     | Degree Applicable, CSU | (May be taken four times for credit) 36 hours lecture
Offers students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. |
| SPAN 1     | Elementary Spanish                                                    | 4     | Degree Applicable, CSU, UC | (CAN SPAN02) 72 hours lecture
Development of the ability to converse, read and write in Spanish. Includes essentials of pronunciation, vocabulary, idioms and grammatical structures along with an introduction to Hispanic culture. Intended for students without previous exposure to Spanish. |
| SPAN 2     | Continuing Elementary Spanish                                        | 4     | Degree Applicable, CSU, UC | (CAN SPAN04) 72 hours lecture
Prerequisite: SPAN 1 or equivalent
Further development of conversational, reading and writing skills in Spanish with special emphasis on verbs, grammar and expansion of vocabulary. Further study of Hispanic culture. |
| SPAN 3     | Intermediate Spanish                                                 | 4     | Degree Applicable, CSU, UC | (CAN SPAN08) 72 hours lecture
Prerequisite: SPAN 2 or equivalent
Further development of communicative proficiency in Spanish. Further study and review of grammar. Increasing emphasis on reading and writing as tools in exploring Hispanic civilization. |
| SPAN 4     | Continuing Intermediate Spanish                                       | 4     | Degree Applicable, CSU, UC | (CAN SPAN10) 72 hours lecture
Prerequisite: SPAN 3 or equivalent
Emphasis on increased proficiency in speaking, reading and writing Spanish. Review of grammar, increased vocabulary building. Readings and discussions on Hispanic cultural topics. Introduction to Hispanic literature. |
| SPAN 5     | Advanced Spanish                                                     | 4     | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass) 72 hours lecture
Prerequisite: SPAN 4 or equivalent
Emphasis is placed on increased proficiency in speaking, reading and writing Spanish. Cultural insights are developed through videos, movies and readings in Hispanic culture through different literary genres. |
| SPAN 6     | Continuing Advanced Spanish                                          | 4     | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass) 72 hours lecture
Prerequisite: SPAN 5 or equivalent
Advanced reading, discussing and writing in Spanish designed to provide further cultural insights into the Hispanic world through the study of cultural and literary readings. High level of proficiency in Spanish will be emphasized. |
| SPAN 11    | Spanish for the Spanish Speaking                                     | 4     | Degree Applicable, CSU, UC | 72 hours lecture
Provides Spanish-speaking students without previous formal study of Spanish with the basis to improve skills in standard Spanish and to broaden their understanding of Hispanic cultures. Focuses on developing vocabulary, improving orthography and the use of grammatical structures, both oral and written. Class instruction conducted in Spanish. |
| SPAN 12    | Continuing Spanish for the Spanish Speaking                          | 4     | Degree Applicable, CSU, UC | 72 hours lecture
Prerequisite: SPAN 11 or equivalent
Provides Spanish-speaking students with previous formal study of Spanish with further development and improvement of skills in standard Spanish and a broader understanding of Hispanic cultures. Culturally-based topics are the focus of readings and class discussions. Class instruction conducted in Spanish. |
| SPAN 25    | Spanish Literature                                                   | 3     | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass) 54 hours lecture
Prerequisite: SPAN 4 or equivalent
Introduction to the literatures of Mexico, other Spanish-American countries and Spain. All reading and lectures are in Spanish. |
SPAN 40 — Intermediate Spanish for Health Professionals 4 Units
Not Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
Prerequisite: SPAN 2 or equivalent
Intermediate level Spanish for health care professionals emphasizing speaking, oral comprehension and cross-cultural communication within a health care setting. Includes the study of vocabulary, grammar, spoken and written language in context, and Hispanic culture in the U.S. especially as it relates to health care issues.

SPAN 53 — Conversational Spanish 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: SPAN 2 or equivalent
Development of intermediate Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.

SPAN 54 — Continuing Conversational Spanish 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: SPAN 53
Development of advanced Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.

SPEECH

SPCH 1A — Public Speaking 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Perform speaking and listening assignments that utilize effective verbal, vocal and physical communicative strategies, and critical/analytical techniques. Students may not receive credit for both SPCH 1A and SPCH 1AH.

SPCH 1AH — Public Speaking - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Perform speaking and listening assignments that utilize effective verbal, vocal, and physical communicative strategies and critical/analytical techniques. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 1A and SPCH 1AH.

SPCH 1B — Intermediate Public Speaking 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: SPCH 1A or SPCH 1AH
Practice in extemporaneous speaking with stress on organization and delivery. Analyze, synthesize, criticize and advocate ideas, using inductive and deductive reasoning, distinguishing fact from opinion and avoiding fallacies of language and logic as critical thinkers both as alert members of an audience and as perceptive public speakers.

SPCH 3 — Voice and Diction 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Improvement of the speaking voice and oral communication style, including proper use for control and projection of the voice, vocal expressiveness, articulation and pronunciation. Develops accuracy of sound production for standard American speech through use of the International Phonetic Alphabet. Emphasizes individual diagnosis and extensive oral practice.

SPCH 4 — Oral Interpretation of Literature 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Develops an appreciation of various genres of literature through textual analysis, oral reading, and evaluation. Practical training is given in critical reading, editing, and performance of poetry, prose, drama, essay and experimental forms of performance text.

SPCH 5 — Readers Theater 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: SPCH 1A or SPCH 1AH or SPCH 4
Theory, principles, and techniques of the interpretation of literature in the medium of readers theater. There is programming and presentation of prose, poetry and drama by an ensemble of readers. Emphasis is placed on experimental presentations and on the development of analytical insight into literary forms.

SPCH 6 — Small Group Communication 3 Units
Degree Applicable, CSU
54 hours lecture
Principles of communication in a variety of small group contexts. Theory, application and evaluation of group communication processes, including problem-solving, conflict management, decision making, and leadership.

SPCH 7 — Intercultural Communication 3 Units
Degree Applicable, CSU
54 hours lecture
Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. Students may not receive credit for both SPCH 7 and SPCH 7H.

SPCH 7H — Intercultural Communication Honors 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Admission into the Honors Program
Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 7 and SPCH 7H.

SPCH 10 — Speech Enhancement 1 Unit
Degree Applicable, CSU
18 hours lecture
Corequisite: SPCH 1A
Provides hands-on research, outlining, and anxiety reduction activities designed to enhance student success as a linked course with the basic public speaking course.

SPCH 15 — Forensics: Contest Speech and Debate 2 Units
Degree Applicable, CSU
(May be taken four times for credit)
18 hours lecture
54 hours lab
Advisory: SPCH 1A or SPCH 1AH
Participation in intercollegiate speech tournaments through Mt. SAC Forensics Team. Instrucional in preparatory procedures for these tournaments, including techniques in persuasive oratory, extemporaneous interpretation, expository, impromptu, discussion, speech analysis, debate. Student has option to choose area of interest and also an opportunity to participate in public community programs. Attendance required at one competition. Students who repeat this course will improve skills through further instruction and practice.

SPCH 16 — Forensics: Individual Team Event 2 Units
Degree Applicable, CSU
(May be taken four times for credit)
108 hours lab
Corequisite: SPCH 15
Students develop speech performance skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Emphasis is on individual speaking events, including public address and oral interpretation of literature along with receiving critiques from judges and utilizing directed self-study. Students who repeat this course will improve skills through further instruction and practice. Public or tournament performance required.
### COURSE DESCRIPTIONS

#### SPCH 17 — Forensics: Debate Team 2 Units
(May be taken four times for credit)
108 hours lab
Corequisite: SPCH 15
Students develop speaking and argumentation skills and participate in multiple inter-collegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Emphasis is on parliamentary debate and extemporaneous speaking. Students who repeat this course will improve skills through further instruction and practice. Public or tournament performance required.

#### SPCH 18 — Forensics: Readers Theater Team 2 Units
(May be taken four times for credit)
108 hours lab
Corequisite: SPCH 15
Students develop speech performance skills and participate in multiple inter-collegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Students will perform in one or more Readers Theater pieces. Students who repeat this course will improve skills through further instruction and practice. Public or tournament performance required.

#### SPCH 20 — Argumentation and Debate 3 Units
(CAN SPCH06)
54 hours lecture
Prerequisite: SPCH 1A or SPCH 1AH or equivalent
Equips the student to engage in rational discussion and reasoned advocacy. Emphasis is given to rhetorical principles of argumentation, both theory and practice.

#### SPCH 20H — Argumentation and Debate - Honors 3 Units
(CAN SPCH06)
54 hours lecture
Prerequisite: SPCH 1A or SPCH 1AH and acceptance into the Honors Program
Equips the student to engage in rational discussion and reasoned advocacy. Emphasis is given to rhetorical principles of argumentation, both theory and practice. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 20 and SPCH 20H.

#### SPCH 26 — Interpersonal Communication 3 Units
(CAN SPCH08)
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Principles of verbal and nonverbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships.

#### SPCH 26H — Interpersonal Communication - Honors 3 Units
(CAN SPCH08)
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Principles of verbal and nonverbal transactions that occur in everyday face-to-face communication. Study of theory and research findings and their application to communication in professional and personal relationships. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 26 and SPCH 26H.

#### SPCH 60 — Preparation for Public Speaking 3 Units
54 hours lecture
Advisory: ENGL 67 or AMLA 43W or eligibility for ENGL 68
Preparation for college level public speaking. Emphasis on outlining, research skills, organization of ideas, and management of speech anxiety. Includes multiple speaking and anxiety reduction activities.

#### SPCH 99 — Special Projects in Speech 2 Units
(May be taken four times for credit)
36 hours lecture
To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

### STUDY TECHNIQUES

#### STDY 80 — Studying and Learning: Foundations for Success 3 Units
(May be taken for Pass/No Pass only)
54 hours lecture
Advisory: Eligibility for ENGL 67 or READ 80
Provides a foundation for life-long learning that promotes greater self-awareness and success. Academic success strategies include text management, time management, listening, note taking, oral and written communication, test taking, memorization, use of campus resources, and research methods.

#### STDY 85A — Test-Taking and Stress Management 1 Unit
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides support in understanding how the brain functions and applying that knowledge to test-taking and stress management strategies.

#### STDY 85B — Notetaking and Listening 1 Unit
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Focuses on skills for successful online learning and prepares students to take online classes and learn about effective online communication tools.

#### STDY 85C — Study Techniques and Skills for Online Learning 1 Unit
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Focuses on skills for successful online learning and prepares students to take online classes and learn about effective online communication tools.

#### STDY 85D — Goal Setting and Time Management 1 Unit
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides support in understanding how the brain functions and applying that knowledge to goal setting and time management strategies.

#### STDY 85E — Memory and Concentration 1 Unit
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides support in understanding how the brain functions and applying that knowledge to memory and concentration strategies.

#### STDY 100 — Student Achievement and Fundamentals of Learning 3 Units
54 hours lecture
Advisory: Eligibility for ENGL 68 or READ 100
Designed to increase student success in transfer college level courses. Provides a systematic approach to advanced study techniques for academic success in higher education. Develops the steps leading to successful transfer/transition to four-year institutions or careers.
### Course Descriptions

#### SURVEYING

**SURV 1A — Surveying**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: MATH 150  
Surveying fundamentals; use and care of surveying instruments including steel tape, engineer's level, theodolite and total station; horizontal and vertical measurements; layout, traverse, area computations; analysis and adjustments of systematic and random errors; stadia surveying; mapping.

**SURV 1B — Surveying**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: SURV 1A  
Construction surveying; volumes; property surveying; control surveys; California coordinate system; horizontal and vertical curves; introduction to electronic, photogrammetric, and G.I.S. methods; mapping project; introduction to the method of least squares; land survey descriptions; astronomical observations.

#### TECHNOLOGY-RELATED COURSES

**TECH 60 — Customer Relations for the Technician**  
1 Unit  
Degree Applicable  
18 hours lecture  
Customer relations (soft skills) for the technician including benefits of knowing and using effective customer contact tools, proper customer interactions, ethics, and maintaining customer satisfaction.

**THTR 9 — Introduction to Theatre Arts**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
A comprehensive introduction to the theater, including the aesthetic, artistic, technical, and business aspects.

**THTR 10 — History of Theatre Arts**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 1A  
Designed to present an appreciative background to dramatic literature and to the development of dramatic art. Representative plays and the history and development of the living stage will be stressed.

**THTR 11 — Principles of Acting I**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Introduction to the basic principles and techniques of acting as an artistic discipline. Analysis of the plot, characterization and language of the drama. Performances of laboratory scenes, readings and exercises.

**THTR 12 — Principles of Acting II**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: THTR 11  
Advanced study of principles presented in DRAM 11. An investigation of acting techniques through the study and presentation of varied dramatic scenes.

**THTR 14 — Stagecraft**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken two times for credit)  
36 hours lecture  
54 hours lab  
Theory and practice of stage design and lighting. Practical work in scene design and construction and lighting layouts, with the opportunity to perform these tasks in actual theatre situations. By virtue of the wide range of productions staged by the department, students who repeat this course will increase their skills and proficiency.

**THTR 15 — Play Rehearsal and Performance**  
2 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
108 hours lab  
Theory and practice of stage design and lighting. Practical work in scene design and construction and lighting layouts, with the opportunity to perform these tasks in actual theatre situations. By virtue of the wide range of productions staged by the department, students who repeat this course will improve their skills through further instruction and practice.

**THTR 16 — Theatrical Make-Up**  
2.5 Units  
Degree Applicable, CSU, UC  
36 hours lecture  
36 hours lab  
Prerequisite: THTR 11  
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of professional quality make-up. Emphasis will be placed on make-up techniques in film, television, and other media.

**THTR 17 — Acting for Television**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: THTR 11  
Assists students to prepare for an occupation in the performing arts. Includes TV equipment and how to make it work for the TV actor; study of image, type and character with practical exercises and scenes in various styles such as TV drama, sit-coms, news, commercials.

**THTR 18 — Technical Theater Practicum**  
1 Unit  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
54 hours lab  
Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting set up, property construction, stage sound set up, costume construction and make-up. Crew assignments will be given to the student upon enrollment. The availability of assignments is contingent upon the requirements of the production. Students who repeat this course will improve skills through further instruction and practice.

**THTR 24 — Introduction to Theatrical Design**  
3 Units  
Degree Applicable, CSU  
36 hours lecture  
54 hours lab  
Prerequisite: THTR 14  
Sketching and a variety of media techniques for scenic design for theatre arts. Development of a scenic floor plan, elevations and renditions. Application of basic techniques of drawing and drafting theatrical scenery. Color theory, research, design concept and design process to be studied in depth.

**THTR 25 — Theatrical Playwriting**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: Eligibility for ENGL 1A  
Prerequisite: THTR 24  
Playwriting for the stage. Students will create and critique their own plays, as well as study and critique plays from well known authors and productions. Includes basics of linear broken linear, episodic, ‘A’-’B’ and ritual structures.

**THTR 60 — Children’s Theatre**  
3 Units  
Degree Applicable, CSU  
(May be taken four times for credit)  
72 hours lab  
Theory and practice of children’s theater. Evaluates play production techniques and literature for an audience of children. Includes analysis of plays for children and actual experience in acting, and producing children’s plays for public presentation. Students who repeat this course will improve skills through further instruction and practice. Field trips are required.

**THTR 62 — Advanced Acting Scenework**  
1 Unit  
Degree Applicable, CSU  
(May be taken four times for credit)  
54 hours lab  
Prerequisite: THTR 11  
Advanced acting workshop that focuses on the development and refinement of two-person acting scenes.
COURSE DESCRIPTIONS

TRANSPORTATION

TRAN 17 — Air Transportation
3 Units
Degree Applicable
54 hours lecture
Advisory: AERO 23
A survey course of the air transportation industry. Topics include a historical perspective, regulators and associations, general aviation industry, airline industry, economic characteristics of the airlines, airline management, air cargo, airline labor relations, international aviation, and aviation career planning.

TRAN 19 — Air Law and Regulation
2 Units
Degree Applicable
36 hours lecture
Develops a basic understanding of the legal environment surrounding aviation, the fundamentals of the U.S. legal system, and the impact of the U.S. constitution on aviation activities. Topics include criminal law for aviators and air carriers, tort liability and air commerce, government regulations, contract and commercial law in aviation related businesses, property law for aircraft owners and airport operators, labor and employment law in aviation industries, international law and treaties that affect aviation.

TUTOR TRAINING

TUTR 10A — Introduction to Tutoring
1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
18 hours lecture
Prerequisite: Eligibility for ENGL 1A
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

TUTR 10B — Tutoring in the English Language
1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
18 hours lecture
Prerequisite: Eligibility for ENGL 1A
Tutoring in the English language with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

TUTR 10C — Tutoring as a Supplemental Instructor
1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
18 hours lecture
Prerequisite: Eligibility for ENGL 1A
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

TUTR 10D — Tutoring in Mathematics
1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
18 hours lecture
Prerequisite: MATH 71 or higher
Tutoring in mathematics with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10E — Tutoring in Reading
1 Unit
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Advisory: Eligibility for READ 100
Introduction to tutoring reading. Includes methods of assessment, management of sessions, and application of strategic reading processes. This course prepares students to become reading tutors for all READ students.

WATER TECHNOLOGY

WATR 60 — Introduction to Water Systems
3 Units
Degree Applicable
54 hours lecture
Water sources, hydrological cycle, pre-treatment, water mathematics, basic water chemistry, treatment plant processes, safety, disinfection, corrosion, bacteriology and the public health aspects of potable water. Distribution systems, wells, valves and pumps. Prepares the student for Grade I and II State Water Treatment Operator Certification and Grade I AWWA Water Distribution Operator Certification.

WATR 61 — Water Treatment
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Water treatment, introduction to water treatment, water mathematics, and safety. Prepares students for the Grade II and III AWWA Distribution Operator Certification.

WATR 62 — Water Distribution
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Water distribution systems operation, administration, safety, maintenance, introduction to Cross-connection Control Title 17. Prepares student for Grade II and III AWWA Distribution Operator Certification.

WATR 63 — Cross Connection Control - Certified Tester
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior or concurrently
Includes knowledge necessary to understand the operation of and testing procedures for backflow prevention assemblies. Analyzes Title 17 of the California Administrative Code and Chapter 6 of the Uniform Plumbing Code as they relate to cross-connection control. Prepares students for California State Health Department and AWWA certification as Backflow Prevention Device Testers.

WATR 64 — Cross Connection Control - Certified Specialist
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Offers knowledge necessary to apply the principles of backflow prevention, as outlined in Title 17 of the California Administrative Code, to the administration of a cross-connection control program. Also teaches a student about the use of recycled water as outlined in Title 22 of the California Administrative Code. Prepares students who are otherwise qualified to take the AWWA Cross-Connection Specialist Certification Exam.

WATR 65 — Water Hydraulics and Instrumentation
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Practical water supply hydraulics and instrumentation, with emphasis on distribution system capacity, hydraulic analysis, pumping analysis, customer service lines and meters, automation, instrumentation and control, system maintenance and records.

WELDING

WELD 30 — Metal Sculpture
2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 hours lab
For students interested in art seeking the proper operation of welding processes related to the sculpting industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Type</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 40</td>
<td>Introduction to Welding</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td></td>
<td>18 hours lecture</td>
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<td>54 hours lab</td>
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<td></td>
<td>Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.</td>
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<tr>
<td>WELD 50</td>
<td>Oxyacetylene Welding</td>
<td>2</td>
<td>Degree Applicable</td>
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<td></td>
<td></td>
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<td>18 hours lecture</td>
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<td>54 hours lab</td>
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<td>Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.</td>
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<tr>
<td>WELD 51</td>
<td>Basic Electric Arc Welding</td>
<td>2</td>
<td>Degree Applicable</td>
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<td>18 hours lecture</td>
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<td>54 hours lab</td>
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<td></td>
<td>Basic electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (A.W.S.) procedure for certification.</td>
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<tr>
<td>WELD 53A</td>
<td>Welding Metallurgy</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Designed for students seeking a career in welding and welding inspection. Covers structure of matter, chemical, physical, and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation, and heat treatment.</td>
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<tr>
<td>WELD 60</td>
<td>Print Reading and Computations for Welders</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Reading prints and performing computations for welding fabrication operations. Interpreting and visualizing prints, title blocks, welding symbols, specifications, notes, and bills of materials. Computations necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions.</td>
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<tr>
<td>WELD 70A</td>
<td>Beginning Arc Welding</td>
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<td>Degree Applicable</td>
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<td></td>
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<td>18 hours lecture</td>
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<td>108 hours lab</td>
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<td>Develops manipulative skills and techniques for the beginning student welder on the shield metal arc (SMAW) and the flux cored arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel.</td>
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<tr>
<td>WELD 70B</td>
<td>Intermediate Arc Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>18 hours lecture</td>
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<td>108 hours lab</td>
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<td>A continuation of Beginning Arc Welding (WELD 70A). Emphasis is on welding high alloy steel with both SMAW and FCAW processes in the vertical and overhead positions. Designed to refine previously acquired welding skills.</td>
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<tr>
<td>WELD 70C</td>
<td>Certification for Welders</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>18 hours lecture</td>
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<td>108 hours lab</td>
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<td></td>
<td>Study of building construction for the advanced arc welding student. Special emphasis will be placed on welding symbols and the American Welding Society's (AWS) D1.1 and D1.3.</td>
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<tr>
<td>WELD 78</td>
<td>Fabrication and Construction Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
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<td>18 hours lecture</td>
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<td>108 hours lab</td>
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<td></td>
<td>Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components.</td>
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<tr>
<td>WELD 80</td>
<td>Pipe and Tube Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
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<td>18 hours lecture</td>
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<td>108 hours lab</td>
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<td>Advanced course designed to enable students with &quot;all positions&quot; welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GMAW, GMIAW, FCAW on a variety of materials and configurations on subcritical and critical piping and tubing.</td>
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<tr>
<td>WELD 90</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>18 hours lecture</td>
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<td>108 hours lab</td>
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<td>Advisory: WELD 70A taken prior</td>
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<td>An integrated review of Semiautomatic Welding Processes including Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) with solid and tubular wires with and without gas shielding. All position welds with many varying thickness will be covered.</td>
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<td>WELD 91</td>
<td>Automotive Welding, Cutting and Modification</td>
<td>3</td>
<td>Not Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>18 hours lecture</td>
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<td>108 hours lab</td>
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<td></td>
<td>Special emphasis will be placed on welding symbols and the American Welding Society's (AWS) D1.1 and D1.3.</td>
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<tr>
<td>WELD 96</td>
<td>Work Experience in Welding</td>
<td>1 to 4</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td>Provides actual on-the-job experience in welding at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
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</table>
Section 11

Continuing Education
Continuing Education

**CONTINUING EDUCATION (ADULT EDUCATION) COURSES**

Noncredit courses are designed to meet the special needs and capabilities of those students who do not desire or need to obtain college unit credit. These courses provide developmental, occupational and other general education opportunities. Courses and programs are further defined categorically under the California Education Code, Section 84711, whereby state funding is authorized for nine specific categories as follows: Parenting, Basic Skills (including tutoring), English as a Second Language, Citizenship, Programs for the Handicapped, Vocational Courses, Programs for the Older Adult, Home Economics, Health and Safety and additional courses qualified for adult education curricula.

**Student Services**

Admissions and Registration

For Continuing Education (noncredit) and Community Services (fee-based) offerings, admission and registration is completed using a registration card. However, enrollment in ESL and/or Basic Skills courses requires assessment and orientation prior to registration (see explanations, following). Students may register for most courses at any time during the semester, on a space available basis. Noncredit and fee-based offerings are available to community members regardless of residency status.

Assessment

Basic Skills students are assessed prior to enrolling in courses. Additional assessments are available for specific needs. Basic Skills assessment services include testing for academic skills levels, learning strengths, career paths and learning disabilities. For more information, contact (909) 594-5611, ext. 4845.

ESL students must be assessed prior to enrollment. Placement testing is offered every Thursday, year-round. Multilingual assistance is available. For more information, contact (909) 594-5611, ext. 5235.

Orientation

Basic Skills and ESL students must attend an orientation session prior to registration. Orientation sessions are generally offered immediately after assessment.

Counseling and Advice

Educational advisement services are available in the Continuing Education Division office the Administration Building, building 4, room 221D, during the first week of registration and at the beginning of each semester for career and educational planning. These educational advisement services are also on-going throughout the semester through the Continuing Education Center. To schedule an individual appointment, students should call the Continuing Education Center, (909) 594-5611, ext. 4845.

The Basic Skills and ESL departments provide counselors and educational advisors to serve their students. Assistance to all noncredit students includes development of Educational and Career Plans, identification of personal, academic and career goals, career skill practice and resources, transitioning to credit programs, and assessment of special needs.

**Fees and Expenses**

There is no tuition for noncredit courses. However, some courses include a fee for materials provided to students. In addition, students who park on the Mt. San Antonio College campus must have a valid, current parking permit. Permits may be purchased in the Administration Building, building 4, lower level. Books and supplies needed for a class are the responsibility of the student unless specifically noted as provided by a material fee.

**Credit/Noncredit Combined Courses**

The Division offers many credit classes to Continuing Education students for noncredit. Students may enroll in these classes in accordance with procedures outlined in the Continuing Education class schedule. Students will not receive college credit. However, students enrolled in these classes who wish to receive a certificate of completion are expected to complete all assignments including tests, quizzes, projects and examinations. (A list of Noncredit Certificate Programs is provided beginning on page 215 of this catalog.) Students wishing to complete a noncredit certificate program in one of the occupational areas of study must apply to the Continuing Education Division office, the Administration Building, building 4, room 221 to initiate the issuance of a certificate.

**English as a Second Language**

ESL classes are provided for English language learners at all levels of proficiency, from low literacy to advanced, transitioning to credit. Classes and services include:

- Assessment for level placement (Pre-Level 1 - Level 6)
- Core level classes focusing on integrated skills (grammar, listening, speaking, reading and writing)
- Skill-focused classes (Speaking A-C, Writing A-C)
- Specialized courses (TOEFL preparation, Citizenship preparation)
- Vocational ESL (Career Paths)
- Contract ESL customized for the workplace
- Career guidance and counseling

For more information on ESL programs located in the Language Center, contact (909) 594-5611, ext. 5235.

**Exercise Science and Wellness Center**

The Exercise Science and Wellness Center provides an exercise facility which includes cardio and strengthening equipment, a variety of exercise classes led by certified instructors and specialized fitness testing. It welcomes community members as well as Mt. San Antonio College students and employees. Individuals can register in the Continuing Education Registration office in the Administration Building, building 4, room 221D, or in the Wellness Center. For more information, contact (909) 594-5611, ext. 4625.

For more information on the LLC, contact (909) 594-5611, ext. 4580.

**Language Learning Center**

Mt. San Antonio College's Language Learning Center (LLC) provides a laboratory in which students may practice ESL and a variety of foreign languages, including Chinese, English, French, German, Italian, Japanese, Spanish and Sign Language. Located in the Learning Technology Center, building 6, room 264, the LLC is available on a noncredit and credit basis. Users of the LLC may register year-round. Offerings include:

- Interactive language software in all supported languages
- DVDs, videos, audio recordings
- Pronunciation software
- Computer Aided Testing for Federal Aviation Administration and Chiropractic tests

For more information on the LLC, contact (909) 594-5611, ext. 4580.
Continuing Education

Community Health Programs and CPR
The College offers courses such as First Aid, Heartsaver, AED and more.
- Records rosters and information updates per American Heart Association (AHA) requirements
- Provides videos, texts and manikins per AHA requirements
For more information, contact (909) 594-5611, ext. 4838.

Health Careers Resource Center (HCRC)
The Center provides the resources to increase student knowledge base, to learn new skills and to reinforce previously learned skills. Resources are provided to anyone involved or interested in health occupations. The HCRC provides a state-of-the-art learning environment to:
- Develop new health related skills/knowledge
- Update prior or current knowledge
- Participate in simulated clinical activities which will promote success in the health care industry.
The center is open to credit and noncredit health career students, community health care workers/professionals, individuals preparing for health related licensure or certification exams and any individual involved or interested in health related careers. Some of the campus programs/departments actively utilizing the center include:
- Technology and Health Division
- Medical Services – EMT, Paramedic, PA Prep
- Mental Health Technology
- Nursing
- Radiologic Technology
- Respiratory Therapy
- Community and Non-Credit Education Division
- Long-Term and Acute Certified Nursing Assistant (C.N.A.)
- RN Re-entry Into Practice
- IV Therapy, CPR
- Health Care Interpreting
- International Health Worker
- Physical Therapy Aide

Health Careers Resource Center Available Services
- RN assistance in clinical skills practice and performance evaluation
- Medical and hospital equipment/supplies/ manikins/ training aids for hands on demonstrations and application of basic, intermediate and advanced skills
- Health Skills Performance Update/ Evaluation
- Clinical simulations for Med-Surg, Psych, OB, Peds, Perioperative etc.

Self-Paced, Multisensory Learning Aides
- Expansive Technology Library on all health subjects
- Medical/Nursing resource books, journals
- ADAM programs for anatomy and physiology review
- Mock computer adaptive testing programs for NCLEX- RN and PN State Board Exam preparation
- Computer adaptive instruction for gaining or remediating math, pharmacology, dosage calculation skills or medication administration skills
- Internet access for searching full-text article databases and access lists of pre-evaluated web sites on all lab computers
- Computerized virtual clinical simulation programs
- Medical terminology and bilingual media for International learners

Older Adult Program*
Courses designed for older adults (age 55+ years) provide the full continuum of education from vocational classes to the pursuit of long-standing educational goals. Classes are offered in the arts, personal growth, physical and mental fitness and vocational areas, and are conducted both on campus and at various senior and community centers and residential facilities throughout the Mt. San Antonio College District.

Mountie Volunteer Program (MVP)
The MVP Program coordinates and provides volunteer opportunities on campus while providing training and support services for MVP participants. Partnering with the Retired Senior Volunteer Program (RSVP) of the greater Pomona Valley, the program provides for the recruiting and screening of potential volunteers.

Generations Program
The Generations Program provides educational activities which foster intergenerational relationships that link generations for the good of society, such as student athletes providing volunteer hours for the Older Adult Program.
For more information on Older Adult Programs, please call (909) 594-5611, ext. 4192.

Other Continuing Services and Programs
- Fee-based programs related to career development and personal enrichment for community members
- College 4 Kids and Youth Programs
- CPR and First Aid
- Vehicle Safety Programs (Motorcycle, Traffic School, Driver’s Training)
- Continuing Education Fitness Programs
- Farm Tours
- Wildlife Sanctuary Tours
- Planetarium Shows
- Study Skills Laboratory for Disabled Students Programs and Services
- San Gabriel Valley Training Center (serving developmentally disabled adults)
For more information regarding Continuing Education Services and Programs, contact (909) 594-5611, ext. 4220.

*Note: Although courses are designed for the older adult, anyone 18 years of age and older may enroll.
<table>
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<tr>
<th>NONCREDIT LIST OF CERTIFICATES</th>
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<td>Electronic Cabling and Wiring Technology – Level 2 220</td>
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<td>SurfCAM ......................................... 222</td>
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<td>Office Technology .............................. 222</td>
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<td>Administrative Assistant – Level 1 .......... 222</td>
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<td>Administrative Assistant – Level 2 .......... 222</td>
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<td>Data Entry ...................................... 222</td>
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<tr>
<td>Welder with Concentration in Semiautomatic ARC Welding 224</td>
</tr>
</tbody>
</table>
Continuing Education

Certificate of Competency

Noncredit Certificates of Competency represent sequences of courses in Basic Skills, Career Development, English as a Second Language, or Secondary Education, which allow the student to develop individual competencies based on their personal educational goals and objectives. Each certificate is unique, but all provide the student an opportunity to gain skills necessary to advance in their careers, transition into a new career or prepare for future advanced academic studies and training.

Students are encouraged to gain more information by calling the College telephone number listed in each of the four specific Certificates of Competency that follow.

Basic Skills

SYS #102892

The Basic Skills Certificate of Competency provides courses and training in skills that will improve opportunities for students to obtain employment, advance in their careers or prepare for future advanced academic studies. Students will increase basic skills, i.e., reading, writing, math and computer skills, and progress in this sequence based on individual needs. Courses are offered days and evenings to accommodate work and personal schedules. For more information, please call (909) 594-5611, ext. 4845.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS ABE01</td>
<td>Career Information and Guidance</td>
</tr>
<tr>
<td>BS ABE02</td>
<td>Adult Basic Education</td>
</tr>
<tr>
<td>BS ABE03</td>
<td>Adult Basic Education – Leadership Development</td>
</tr>
<tr>
<td>BS ABE04</td>
<td>Guidance and Orientation to Special Programs</td>
</tr>
<tr>
<td>BS ABE05</td>
<td>Career Development</td>
</tr>
<tr>
<td>BS ABE06</td>
<td>Basic Skills Foundation</td>
</tr>
<tr>
<td>BS ABE07</td>
<td>Re-Entry Work Skills Needed for Today’s Workforce</td>
</tr>
<tr>
<td>BS CNSL5</td>
<td>Career/Life Planning</td>
</tr>
</tbody>
</table>

English as a Second Language

SYS #784025

ESL students are placed within the following sequence of courses according to their English abilities. Students progress through this sequence based on individual need before transferring into credit courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed. Courses are offered all year long, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 594-5611, ext. 5235.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL LVL1</td>
<td>ESL – Pre-Level 1</td>
</tr>
<tr>
<td>ESL LVL2</td>
<td>ESL – Level 2</td>
</tr>
<tr>
<td>ESL LVL3</td>
<td>ESL – Level 3</td>
</tr>
<tr>
<td>ESL LVL4</td>
<td>ESL – Level 4</td>
</tr>
<tr>
<td>ESL LVL5</td>
<td>ESL – Level 5</td>
</tr>
<tr>
<td>ESL LVL6</td>
<td>ESL – Level 6</td>
</tr>
<tr>
<td>ESL SPKA</td>
<td>ESL – Speaking A</td>
</tr>
<tr>
<td>ESL SPKB</td>
<td>ESL – Speaking B</td>
</tr>
<tr>
<td>ESL SPKC</td>
<td>ESL – Speaking C</td>
</tr>
</tbody>
</table>

Career Development

SYS #244582

Career development provides students with information and guidance on college opportunities, careers and life planning. Students can apply skills gained to their current employment and personal lives and will improve their opportunities to advance in their careers or transition into a new career. This sequence of courses is offered days and evenings to accommodate adults with alternating schedules. For more information, please call (909) 594-5611, ext. 4845.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS WRTA</td>
<td>ESL Writing A</td>
</tr>
<tr>
<td>BS WRTB</td>
<td>ESL Writing B</td>
</tr>
<tr>
<td>BS WRTC</td>
<td>ESL Writing C</td>
</tr>
<tr>
<td>BS LANC</td>
<td>English for Special Uses</td>
</tr>
<tr>
<td>BS LANC1</td>
<td>Language Skills Laboratory</td>
</tr>
<tr>
<td>BS LANC2</td>
<td>English as a Second Language for Health Professionals</td>
</tr>
</tbody>
</table>

Secondary Education

SYS #259121

The High School Program provides all courses needed to satisfy requirements for a high school diploma. Students earning a high school diploma increase future employment and educational opportunities, including college and training programs. Completion of these courses will provide the student with a high school diploma. For more information, please call (909) 594-5611, ext. 4845.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSHS ABE1</td>
<td>High School Academic Decathlon</td>
</tr>
<tr>
<td>BSHS ABDW</td>
<td>High School Expository Writing and Critical Thinking</td>
</tr>
<tr>
<td>BSHS ALG1</td>
<td>High School Algebra 1</td>
</tr>
<tr>
<td>BSHS ALG2</td>
<td>High School Algebra 2</td>
</tr>
<tr>
<td>BSHS ART1</td>
<td>High School Art and Creative Expression</td>
</tr>
<tr>
<td>BSHS ART2</td>
<td>High School Art 2</td>
</tr>
<tr>
<td>BSHS BIO</td>
<td>High School Biology</td>
</tr>
<tr>
<td>BSHS CHEM</td>
<td>High School Chemistry</td>
</tr>
<tr>
<td>BSHS CHN1</td>
<td>High School Chinese 1</td>
</tr>
<tr>
<td>BSHS CV</td>
<td>High School Civics/American Government</td>
</tr>
<tr>
<td>BSHS CPTC</td>
<td>High School Computer Technology</td>
</tr>
<tr>
<td>BSHS DIPR</td>
<td>High School Diploma and Referral</td>
</tr>
<tr>
<td>BSHS ECON</td>
<td>High School Economics</td>
</tr>
<tr>
<td>BSHS EELA</td>
<td>High School CAHSEE Prep – English Language Arts</td>
</tr>
<tr>
<td>BSHS EEMA</td>
<td>High School CAHSEE Prep – Mathematics</td>
</tr>
<tr>
<td>BSHS ENG1</td>
<td>High School English 1</td>
</tr>
<tr>
<td>BSHS ENG2</td>
<td>High School English 2</td>
</tr>
<tr>
<td>BSHS ENG3</td>
<td>High School English 3</td>
</tr>
<tr>
<td>BSHS ENG4</td>
<td>High School English 4</td>
</tr>
<tr>
<td>BSHS GEOG</td>
<td>High School Geography</td>
</tr>
<tr>
<td>BSHS GEOM</td>
<td>High School Geometry</td>
</tr>
<tr>
<td>BSHS GRAP</td>
<td>High School Advanced Graphics/Printing</td>
</tr>
<tr>
<td>BSHS HLTH</td>
<td>High School Health</td>
</tr>
<tr>
<td>BSHS JSMT</td>
<td>High School Journalism</td>
</tr>
<tr>
<td>BSHS KEY</td>
<td>High School Typing/Keyboarding</td>
</tr>
<tr>
<td>BSHS LSC</td>
<td>High School Life Science</td>
</tr>
</tbody>
</table>

Occupational Training

Certificate of Competency

OCCUPATIONAL TRAINING

CERTIFICATES IN

California Community College Adult Education Programs are authorized to offer short-term occupational programs with high employment potential. The demonstration of need to offer these programs within the College service area is determined by manpower needs projections from the California Occupational Information System (COTS), or surveys of employer needs in the community, or state licensing mandates and/or certification.

What Are Occupational Training Certificates?

Certificates in a variety of occupational programs are available through the Continuing Education Division. Many of these certificate programs mirror those offered through the credit programs of the College, are favorably recognized by business and industry, and are frequently used as a requirement for professional advancement. Classes taken are noncredit, and do not generate college units toward a degree. The Continuing Education Division also offers fee-based Certificate Programs. These include:

- Accounting/Bookkeeping
- CPR and First Aid
- Medical Insurance Billing Specialist
- Phlebotomy

Specific certificate content and more information can be found in the Community Services Schedule of Classes each semester or contact (909) 594-5611, ext. 4220.
How to Finish an Occupational Certificate
In order for students to receive a Certificate of Completion, the student must do the following:

- Register and pay material fees if required for desired classes
- Attend a minimum of 75% of required class hours
- Satisfactorily complete coursework, papers and projects, take and pass mid-terms and final with the equivalent of a “C” grade
- When all courses are completed, apply to the Continuing Education Office.

Attendance and signatures will be verified by the Continuing Education Division staff. If all requirements are met, a Certificate of Completion will be prepared and delivered to the student.

Getting Help
For more information regarding occupational training certificates, please call the Division office at (909) 594-5611, ext. 4220.

Educational Advisers are available to assist students with Career and Education Planning. During the first week of registration, they are available in the registration area, the Administration Building, building 4, room 2210. Times will be posted and students served on a first-come, first-served basis. Advisers are also available by appointment during the semester. Please call (909) 594-5611, ext. 4845 to schedule an appointment.

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### OCCUPATIONAL – ACCOUNTING

#### Accounting – Bookkeeping
SYS #538161

The Bookkeeping Certificate provides the student with the basic skills and knowledge for entry-level positions within the clerical/accounting field. Common duties performed in this field are posting transactions to journals/ledgers, accounts receivable, accounts payable, inventory tracking/reporting, bank reconciliation, expense reporting and account analysis. The sequence can be completed in one year, and courses are offered Fall and Spring semesters.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA73</td>
<td>Using Microcomputers in Financial Accounting</td>
</tr>
<tr>
<td>VOC BA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
</tr>
<tr>
<td>VOC CS15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP11</td>
<td>Internet Research for Business</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Microsoft Word</td>
</tr>
</tbody>
</table>

#### Accounting – Payroll
SYS #597867

The Payroll Certificate combines basic accounting skills with specialized training in payroll preparing the student for entry-level positions within the payroll segment of accounting. Common duties performed in this field include payroll tax reporting, maintenance of payroll accounting systems and posting payroll transactions to journals/ledgers.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA70</td>
<td>Payroll and Tax Accounting</td>
</tr>
<tr>
<td>VOC BS75</td>
<td>Using Microcomputers in Financial Accounting, or</td>
</tr>
<tr>
<td>VOC BA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
</tr>
</tbody>
</table>

### OCCUPATIONAL – AGRICULTURAL SCIENCE

#### Floral Design
SYS #132282

This sequence is offered in the evening only on campus and at off-campus locations and can be completed in two years. Students completing all three courses will have skills and knowledge to seek jobs in floral design beyond entry-level positions, i.e., first-line supervision and/or management and Floral Designers.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR25</td>
<td>Floral Design – 1</td>
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<tr>
<td>VOC AGR26</td>
<td>Floral Design – 2</td>
</tr>
<tr>
<td>VOC AGR27</td>
<td>Floral Design – 3</td>
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</tbody>
</table>

#### Horse Ranch Management
SYS #391289

This sequence of courses is designed to enable students to prepare for a career in horse ranch management. Courses provide students hands-on experience designed to give them a combination of practical skills and technical knowledge.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGL16</td>
<td>Horse Production or</td>
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<tr>
<td>VOC AGL18</td>
<td>Horse Ranch Management</td>
</tr>
<tr>
<td>VOC AGL19</td>
<td>Horse Hoof Care</td>
</tr>
<tr>
<td>VOC AGL96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>VOC AGL97</td>
<td>Artificial Insemination of Livestock</td>
</tr>
</tbody>
</table>

#### Interior Landscaping
SYS #118137

This certificate is designed to give students basic skills in the design, installation and maintenance of interior plants that are used in residences, offices, hotels, malls, restaurants and other locations.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
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<tr>
<td>VOC AGR15</td>
<td>Interior Landscaping</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
</tbody>
</table>

#### Landscape Design and Construction
SYS #19610

This certificate is designed to give students basic skills needed in employment with a landscape contractor. Employment potential is very good.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>VOC AGR72</td>
<td>Landscape Hardscape Applications</td>
</tr>
</tbody>
</table>

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### Landscape and Park Maintenance
SYS #62162

This certificate is designed to give students basic skills in park landscape maintenance. Courses are offered annually, and prepare the student with skills that are appropriate for the maintenance of grounds, property or parks.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR80</td>
<td>Sports Turf Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
</tbody>
</table>

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Section 11
### Landscape Equipment Technology

**SYS #327645**

This certificate is designed to give students basic skills to seek employment in equipment repair, golf courses, rental yards, and small equipment repair shops.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management Operations</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR64</td>
<td>Landscape Irrigation – Drip and Low Volume</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
</tbody>
</table>

### Livestock Management

**SYS #333598**

This certificate is designed to give students basic skills in livestock management for employment opportunities on farms, ranches and agriculture sales and services. This sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGG01</td>
<td>Food Production, Land Use and Politics – a Global Perspective</td>
</tr>
<tr>
<td>VOC AGN01</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGN02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGN03</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGN17</td>
<td>Sheep Production</td>
</tr>
<tr>
<td>VOC AGN18</td>
<td>Beef Production</td>
</tr>
<tr>
<td>VOC AGN19</td>
<td>Livestock Judging and Selection</td>
</tr>
<tr>
<td>VOC AGN20</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
</tbody>
</table>

**Plus select 2 courses from the following:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>VOC BS35</td>
<td>Professional Selling</td>
</tr>
<tr>
<td>VOC BS36</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

### Nursery Management

**SYS #703868**

This certificate is designed to give students basic skills in production and marketing of plants and dry goods in the wholesale and retail nursery industry. The sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGM01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGM02</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGM03</td>
<td>Animal Handling and Restraint</td>
</tr>
<tr>
<td>VOC AGM04</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGM05</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>VOC AGM62</td>
<td>Landscape and Nursery Management</td>
</tr>
<tr>
<td>VOC AGM82</td>
<td>Ornamental Plants – Herbeaceous Shrubs</td>
</tr>
<tr>
<td>VOC AGM83</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGM84</td>
<td>Landscape and Nursery Management</td>
</tr>
<tr>
<td>VOC AGM85</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGM86</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
</tbody>
</table>

### Park Management

**SYS #314920**

This certificate is designed to enable students to prepare for a career in park management, and provides students with hands-on experience, designed to give them a combination of practical skills and technical knowledge.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Park Management</td>
</tr>
<tr>
<td>VOC AGR05</td>
<td>Park Facilities</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management Operations</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR73</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>

### Pet Science

**SYS #425556**

This certificate is designed to enable students to enter the retail or wholesale pet industry. Most of the courses in this certificate are offered every Fall and Spring semester. Five of the courses are offered in the evening only and are rotated over four semesters.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGF01</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGF02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGF03</td>
<td>Animal Handling and Restraint</td>
</tr>
<tr>
<td>VOC AGF04</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGF96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>VOC AGF70</td>
<td>Pet Shop Management</td>
</tr>
<tr>
<td>VOC AGF71</td>
<td>Canine Management</td>
</tr>
<tr>
<td>VOC AGF72</td>
<td>Feline Management</td>
</tr>
<tr>
<td>VOC AGF73</td>
<td>Tropical and Coldwater Fish Management</td>
</tr>
<tr>
<td>VOC AGF74</td>
<td>Reptile Management</td>
</tr>
<tr>
<td>VOC AGF76</td>
<td>Aviculture – Cage and Avian Birds</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
</tbody>
</table>

### Sports Turf Management

**SYS #332420**

This certificate is designed to provide skills required for students interested in employment at golf courses, race tracks, athletic fields and stadiums, and other high-use turf areas. The sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management Operations</td>
</tr>
<tr>
<td>VOC AGR40</td>
<td>Sports Turf Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation Systems Management</td>
</tr>
</tbody>
</table>

### Tree Care and Maintenance

**SYS #182769**

This certificate is designed to give students basic skills in the repair and maintenance of trees.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR32</td>
<td>Landscape and Nursery Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR53</td>
<td>Small Engine Repair 1</td>
</tr>
<tr>
<td>VOC AGR75</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>
### Business Management – Level 1

**SYS #818545**

The Business Management – Level 1 Certificate is designed to introduce the student to the role of management in business. Students will be exposed to the terms, trends, organizational structure, and opportunities inherent in business management. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business, or Small Business Management.

#### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>

### Business Management – Level 2

**SYS #245391**

The Business Management – Level 2 Certificate builds upon the Level 1 certificate to provide students with proven business tools that will enhance their management careers. Students will be exposed to projects and business simulations that will lead to measurable success. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business, or Small Business Management.

#### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM60</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
</tbody>
</table>

### Human Resource Management

**SYS #152977**

This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business, or Small Business Management.

#### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Business Organization and Management</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>VOC BM84</td>
<td>Principles of International Business</td>
</tr>
</tbody>
</table>

### International Business – Level 1

**SYS #665499**

This specialized business certificate is intended to prepare the student to work in the unique and dynamic environment of international business. The program also prepares the student to handle business management generalist for companies conducting international trade. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business, or Small Business Management.

#### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM51</td>
<td>Principles of International Business</td>
</tr>
<tr>
<td>VOC BS56</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

### International Business – Level 2

**SYS #745751**

In the International Business – Level 2 Certificate, the student will learn methods and approaches to managing the complexities of doing business in an international environment. Students acquire both theoretical knowledge and practical skills related to managing and marketing within the global arena. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business, or Small Business Management.

#### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM51</td>
<td>Principles of International Business</td>
</tr>
<tr>
<td>VOC BS56</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

### Retail Management – Level 1

**SYS #601197**

Introductory certificate exposes students to the business world and the role of retail distribution. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management, and Small Business Management.

#### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Principles of International Business</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Principles of Retail Management</td>
</tr>
<tr>
<td>VOC BS56</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

### Retail Management – Level 2

**SYS #527217**

Intermediate certificate builds upon the Level 1 Certificate to expose students to the various functions of managers in retail positions. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management, and Small Business Management.

#### Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Principles of International Business</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Principles of Retail Management</td>
</tr>
<tr>
<td>VOC BS56</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>or VOC BS50</td>
<td>Retail Store Management and Merchandising</td>
</tr>
</tbody>
</table>
Continuing Education

Retail Management – Level 3
SYS #127007
Students completing the advanced Level 3 Certificate will have knowledge and practical experience in business communication, leadership and financial controls. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management and Small Business Management.

Certificate Requirements:
Completion of:
Retail Management – Level 1
Retail Management – Level 2
PLUS the following:
Course ID Course Title
VOC BA07 Principles of Accounting – Financial
VOC BM60 Human Relations in Business
VOC BO26 Oral Communications for Business

Small Business Management – Level 1
SYS #563137
Small business has been described as the engine of change within the economy. The Small Business Management – Level 1 Certificate exposes the student to the fundamentals of managing and planning a small business. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management. Courses are offered on an annual basis, and each level of Small Business Management emphasis can be completed in one semester.

Certificate Requirements:
Completion of:
Small Business Management – Level 1
PLUS the following:
Course ID Course Title
VOC BM60 Human Relations in Business
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management

OCCUPATIONAL – ELECTRONICS

Computer and Networking Technology – Level I
SYS #531657
This certificate is intended to prepare students to enter the computer and networking fields as service technicians with foundations in basic electronics, telecommunications, computer servicing and networking servicing.

Certificate Requirements:
Course ID Course Title
VOC CN750 PC Servicing
VOC CN752 PC Operating Systems
VOC CN754 PC Troubleshooting
VOC CN760 A+ Certification Preparation
VOC EL11 Technical Applications in Microcomputers
VOC CSB15 Microcomputer Applications
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL56 Digital Electronics

Small Business Management – Level 2
SYS #2511547
The Small Business Management – Level 2 Certificate provides students with practical small business tools. It focuses on issues such as motivation, teamwork and leadership skills that lead to enhanced productivity through the development of people. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management. Courses are offered on an annual basis, and each level of Small Business Management emphasis can be completed in one semester.

Certificate Requirements:
Completion of:
Small Business Management – Level 1
PLUS the following:
Course ID Course Title
VOC BM60 Human Relations in Business
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management

Computer Systems Technology
SYS #622137
The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry. This includes microprocessor programming codes and microprocessor interfacing circuits.

Certificate Requirements:
Course ID Course Title
VOC EL11 Technical Applications in Microcomputers
VOC EL12 Computer Simulation and Troubleshooting
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronics Devices
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EL74 Microprocessor Systems

Electronic Assembly and Fabrication
SYS #352346
This certificate prepares students to enter the electronics field as assembly and fabrication technicians.

Certificate Requirements:
Course ID Course Title
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EST50 Electrical Fundamentals for Cable Installations
VOC EL61 Advanced Surface Mount Assembly and Rework
VOC EL62 Advanced Surface Mount Assembly and Rework

Electronic Systems Technology – Level 1
SYS #258925
Develops skills in electrical fundamentals, fabrication techniques, wiring and wiring standards for cable and wire systems (copper, coax, fiber and structured cables) and basic computer skills in word processing, spreadsheets, database and the Internet.

Certificate Requirements:
Course ID Course Title
VOC EST50 Electrical Fundamentals for Cable Installations
VOC EST52 Fabrication Techniques for Cable Installations
VOC EST54 Cabling and Wiring Standards
VOC EL11 Technical Applications in Microcomputers
VOC CSB15 Microcomputer Applications

Electronic Systems Technology – Level 2
SYS #174983
This Level 2 certificate builds on the skills and concepts learned in level 1 and adds customer relations (soft skills) and the installation, calibration, setup, maintenance and troubleshooting of home theater systems, home automation and home security systems.

Certificate Requirements:
Completion of:
Electronic Systems Technology – Level 1
PLUS the following:
Course ID Course Title
VOC EST56 Home Theater and Home Automation Systems
VOC EST62 Electronic Troubleshooting – 1
VOC TCH60 Customer Relations for the Technician
VOC EST64 Electronic Troubleshooting – 2
VOC EST70 C.7 Low Voltage Systems License Preparation
VOC EL61 Electronic Assembly and Fabrication
VOC EL62 Advanced Surface Mount Assembly and Rework
Electronic Technology
SYS #670897
This one-year certificate is designed for the person requiring background in the basic core courses of electronic technology without an area of specialization. The core courses provide the necessary skills for entry-level employment as an electronic technician, by written information regarding term offering and correct course selection.

Certificate Requirements:
Course ID Course Title
VOC EL11 Technical Applications in Microcomputers
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronic Devices
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC TCH60 Customer Relations for the Technician

Electronics and Computer – Engineering Technology
SYS #103989
Students completing this certificate will have training in most areas of electronics including: microprocessors and interfacing, electronic communications and industrial electronic controls. Jobs include, but are not limited to:
- Electrical and Electronics Installers and Repair
- Electrical and Electronic Engineering Technician
- Electrical and Electronic Equipment Assemblers

Certificate Requirements:
Course ID Course Title
VOC EL11 Technical Applications in Microcomputers
VOC EL12 Computer Simulation and Troubleshooting
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronic Devices
VOC EL53 Communications Circuits
VOC EL54 Industrial Electronics
VOC EL54B Industrial Electronic Systems
VOC EL55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC TCH60 Customer Relations for the Technician

Industrial Electronics
SYS #612116
This certificate includes electronic devices for industrial controls and motor controls; including programmable logic controls using the Allen Bradley series of PLC’s running Windows ladder logic software.

Certificate Requirements:
Course ID Course Title Hours
VOC EL11 Technical Applications in Microcomputers 4
VOC EL12 Computer Simulation and Troubleshooting 4
VOC EL50A Electronic Circuits (DC) 4
VOC EL50B Electronic Circuits (AC) 4
VOC EL51 Electronic Devices 4
VOC EL53 Communications Circuits 4
VOC EL54 Industrial Electronics 4
VOC EL54B Industrial Electronic Systems 4
VOC EL55 Microwave Communications 4
VOC EL56 Digital Electronics 4
VOC EL61 Electronics Assembly and Fabrication 4
VOC TCH60 Customer Relations for the Technician 4

Recommended Electives:
VOC ECT11 Technical Engineering Drawing I
VOC EL62 Advanced Surface mount Assembly and Rework
VOC EL76 Radio Telephone Communications

VOC EL22 Computer Simulation and Troubleshooting
VOC EL11 Technical Applications in Microcomputers

Electronics Communications
SYS #742582
This certificate encompasses advanced coursework in telecommunications including both land-based and wireless forms of communication.

Certificate Requirements:
Course ID Course Title
VOC EL11 Technical Applications in Microcomputers
VOC EL12 Computer Simulation and Troubleshooting
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronic Devices
VOC EL53 Communications Circuits
VOC EL55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC TCH60 Customer Relations for the Technician

Certified Nursing and Acute Care Nursing Assistant
SYS #195661
This certificate program will prepare participants to work in both long-term and acute care facilities thus providing entry level, diverse, work opportunities in the ever growing health care field. For those planning on entering LVN or RN programs, course content may increase chances for successful admission and completion of nursing program curriculum. These courses meet the requirements for California state certification as a CNA. The program incorporates processing of the state application and administration of the NATAP test with same day official test results for the written and manual skills examination. Verification of successful passing of the NATAP test permits immediate eligibility for employment.

All coursework can be completed within 11 weeks. Offered in Fall or Spring semesters

Participants must:
- provide their own transportation and be at least 16 years of age or have a work permit
- be able to meet expenses and responsibilities incurred as part of this program.
- demonstrate proficient English/ESL verbal and written communication skills to take written exams, communicate with clients and maintain a safe clinical environment.

Certificate Requirements:
Course ID Course Title
VOC HTH01 Certified Nursing Assistant
VOC HTH04 Acute Care Nursing Assistant
VOC HTH05 Health Careers Resource Center

Certified Nurse Assistant (CNA) Course Completion Only VOC HTH 01
VOC HTH 01 is offered for "course completion only" during the Winter and Summer Intersessions. This course provides for employment in long term care only.
For further information, please contact the Health Careers Resource Center, (909) 594-5611, ext. 4788.

Continuing Education

Health Care Interpreting
SYS #425877
Health care providers receiving Federal funds are required to provide interpreters for patients who speak a language other than English at home, if speakers of that language represent a significant portion of the population in the area. Therefore, the need for trained interpreters is growing rapidly. Many health care providers are choosing to upgrade the skills of their current employers through certificate programs such as ours.

The Health Care Interpreting Certificate is an 11 month program, designed to train bilingual and bicultural students to develop the awareness, knowledge and skills for effective language interpretation in health care settings. Through academic preparation, practical skills training, and service in Continuing-based health care settings and educational organizations, HCI candidates will learn:
- Roles and responsibilities of an interpreter in health care settings,
- Basic knowledge of common medical conditions, treatments, and procedures.
- Language and cultural nuances for specific healthcare consumers and providers.
- Application of interpreting skills in English and Spanish or Mandarin.

The program begins each fall semester and includes coursework, independent lab study, and a 6-week unpaid internship within a local healthcare facility. Certification is awarded after completion of the internship. Classes are arranged for the working student, and are scheduled evenings and Saturdays. A cohort of students is admitted each fall semester and completes the certificate at the end of the following summer intersession.

Certificate Requirements:
(Successful completion of all courses listed below)
Course ID Course Title
ESL VH1TH English for Health Professionals
VOC HTH12 Medical Terminology
VOC ANASO Basic Anatomy and Physiology
VOC HTH13 Interpreting in Health Care Setting 1
VOC HTH14 Interpreting in Health Care Setting 2
VOC HTH05 Health Careers Resource Center
(4 hours/week coaching sessions and 3hrs/wk arranged in HCRC, Fall and Spring semesters)
VOC HTH15 Extensin in Health Care Interpreting
VOC HTH20 Health Care Interpreter Seminar

OCCUPATIONAL – HEALTH CAREERS

Section 11
Continuing Education

Basic Requirements:
Applicants should have advanced academic proficiency in English, both spoken and written, and should be equally proficient in the language of service (Spanish or Mandarin).

To enroll in this program, you must attend an information meeting and complete the language assessment process. Registration will be offered on a first-come, first-served basis for eligible candidates attending the meeting.

For further information and mailed announcements of meeting dates, call VESL Registration at (909) 594-5611, ext. 5236.

OCCUPATIONAL – FACTORY TECHNOLOGY

Manufacturing Technology SYS #219007
The primary purpose of this certificate is to emphasize the manipulative skills required to enter the field of machine metal worker, machine operator, production machinist, mechanical technician or machinist. There are many occupational titles and opportunities in this field.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MF11</td>
<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>VOC MF12</td>
<td>Manufacturing Processes 2</td>
</tr>
<tr>
<td>VOC MF15</td>
<td>2-D CAD – Mechanical Modeling</td>
</tr>
<tr>
<td>VOC MF17</td>
<td>3-D CAD – Mechanical Modeling</td>
</tr>
</tbody>
</table>

Parametric Solid Modeling SYS #649508
With the strong relationship between AutoCAD and manufacturing, this mini certificate guides the student through AutoDesk's 2-D and 3-D and other software packages used in the manufacturing industry.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MF11</td>
<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>VOC MF15</td>
<td>2-D CAD – Mechanical Modeling</td>
</tr>
<tr>
<td>VOC MF17</td>
<td>3-D CAD – Mechanical Modeling</td>
</tr>
<tr>
<td>VOC MF19</td>
<td>Parametric Solid Modeling for Manufacturing</td>
</tr>
<tr>
<td>VOC MF25</td>
<td>Advanced Mechanical Desktop</td>
</tr>
<tr>
<td>VOC MF27</td>
<td>AutoDesk Inventor</td>
</tr>
</tbody>
</table>

SurfCAM SYS #2555843
This certificate is a direct employment pathway for manufacturing students who wish to write, edit, download and run Computerized Numerical Control (CNC) machines, and provides a strong background in the basics of both manual and CNC machines. The sequence is a highly specialized occupation.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MF11</td>
<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>VOC MF15</td>
<td>SurfCAM I</td>
</tr>
<tr>
<td>VOC MF39</td>
<td>SurfCAM II</td>
</tr>
<tr>
<td>VOC MF58</td>
<td>Blueprint Reading for Manufacturing</td>
</tr>
<tr>
<td>VOC MF70</td>
<td>Technical Mathematics – Manufacturing Applications</td>
</tr>
<tr>
<td>VOC MF85</td>
<td>Manual CNC (Computerized Numerical Control) Operations</td>
</tr>
</tbody>
</table>

PLUS – Select 2 courses from the following:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MF25</td>
<td>Advanced Parametric Solid Modeling for Manufacturing</td>
</tr>
<tr>
<td>VOC MF27</td>
<td>AutoDesk Inventor</td>
</tr>
<tr>
<td>VOC WL40</td>
<td>Introduction to Welding</td>
</tr>
</tbody>
</table>

MasterCAM SYS #8000999
This certificate provides a strong background in MasterCAM 2-D and 3-D, and SolidWorks software packages along with the necessary machine shop theory and practice to input sound functional data into the CAM system.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC MF11</td>
<td>Manufacturing Processes I</td>
</tr>
<tr>
<td>VOC MF38</td>
<td>MasterCAM I</td>
</tr>
<tr>
<td>VOC MF38B</td>
<td>Advanced MasterCAM</td>
</tr>
</tbody>
</table>

OCCUPATIONAL – OFFICE TECHNOLOGY

Administrative Assistant – Level I SYS #736621
Prepares students for entry-level clerical positions where keyboarding is the primary function.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC B005</td>
<td>Business English</td>
</tr>
<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding OR</td>
</tr>
<tr>
<td>VOC CP01A</td>
<td>Computer Keyboarding AND</td>
</tr>
<tr>
<td>VOC CP01B</td>
<td>Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications OR</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP28</td>
<td>Office Management Skills</td>
</tr>
</tbody>
</table>

Administrative Assistant – Level II SYS #316457
This certificate prepares students for clerical positions where office organization and transcription skills are needed.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC B025</td>
<td>Business Communications</td>
</tr>
<tr>
<td>VOC CP02</td>
<td>Intermediate Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Word for the Business Professional OR</td>
</tr>
<tr>
<td>VOC CP68</td>
<td>Transcription Techniques</td>
</tr>
</tbody>
</table>

Data Entry SYS #234664
This certificate is intended to prepare students for employment as data entry operators, customer service representatives, receptionists, or entry-level office support staff positions. Training in a variety of computer skills is emphasized.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CP20</td>
<td>Intermediate Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications OR</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
</tr>
</tbody>
</table>

Office Computer Applications SYS #334470
This certificate in Office Computer Applications is customized to meet the needs of the entry-level adult student or professional, who is seeking to acquire an array of office computer skills required in a computerized office environment.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CPBC1</td>
<td>Basic Computing – Level 1</td>
</tr>
<tr>
<td>VOC CPBC2</td>
<td>Basic Computing – Level 2</td>
</tr>
<tr>
<td>VOC CPBC3</td>
<td>Basic Computing – Level 3</td>
</tr>
<tr>
<td>VOC CPNET</td>
<td>Internet Research – An Introduction</td>
</tr>
<tr>
<td>VOC CPCL</td>
<td>Creative Computing</td>
</tr>
</tbody>
</table>

Medical Office Specialist SYS #137648
The courses in this certificate are intended to prepare students for employment as entry-level medical office assistants, medical receptionists, administrative assistants, medical, medical office managers or other office support staff in the medical field.

Certificate Requirements:
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA72</td>
<td>Bookkeeping – Accounting</td>
</tr>
<tr>
<td>VOC B065</td>
<td>Business English</td>
</tr>
<tr>
<td>VOC B025</td>
<td>Business Communications</td>
</tr>
<tr>
<td>VOC CP01</td>
<td>Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP02</td>
<td>Intermediate Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CP12</td>
<td>Office Computer Applications OR</td>
</tr>
<tr>
<td>VOC CSB15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP18</td>
<td>Data Entry</td>
</tr>
<tr>
<td>VOC CP20</td>
<td>Microsoft Word</td>
</tr>
<tr>
<td>VOC CP28</td>
<td>Office Management Skills</td>
</tr>
<tr>
<td>VOC CP68</td>
<td>Transcription Techniques</td>
</tr>
<tr>
<td>VOC HTH12</td>
<td>Medical Terminology</td>
</tr>
</tbody>
</table>
## OCCUPATIONAL – PHOTOGRAPhICS

### Computer Graphics Design / Photography

SYS #235898

This certificate will enable the student to develop specific computer skills needed for employment. The Computer Graphics Certificate is an option under the Photography program. Employment will vary among several industries such as computer gaming, movie production, music video production, commercials and animation.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC GRP1</td>
<td>Computer Graphics Lab</td>
</tr>
<tr>
<td>VOC GRP10</td>
<td>Photo Editing with Photoshop</td>
</tr>
<tr>
<td>VOC GRP12</td>
<td>Advanced Photoshop</td>
</tr>
<tr>
<td>VOC GRP14</td>
<td>Digital Color Management</td>
</tr>
<tr>
<td>VOC GRP16</td>
<td>Digital Image Design</td>
</tr>
<tr>
<td>VOC GRP20</td>
<td>Applying Photos and Images in Multimedia</td>
</tr>
<tr>
<td>VOC GRP28</td>
<td>Digital Portfolio</td>
</tr>
<tr>
<td>VOC PHO10</td>
<td>Basic Digital and Film Photography</td>
</tr>
<tr>
<td>VOC PHO17</td>
<td>Photocommunication</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

The Photographics faculty recommends that you complement your studies with selected elective courses listed below. You should meet with a professor of Computer Graphics/Photography to help you determine which electives would best suit your career plans.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC GRP12</td>
<td>Advanced Photo Editing with Photoshop</td>
</tr>
<tr>
<td>VOC PHO01</td>
<td>Laboratory Studies: Black and White Photography</td>
</tr>
<tr>
<td>VOC PHO02</td>
<td>Laboratory Studies: Color Photography</td>
</tr>
<tr>
<td>VOC PHO15</td>
<td>History of Photography</td>
</tr>
</tbody>
</table>

### Vocational Certification Requirements:

- **Photo Editing with Photoshop**
- **Advanced Professional Photography**
- **Photographic Alternatives OR**
- **Exploring Color Photography OR**
- **Fashion Photography OR**
- **Portraiture and Wedding Photography OR**
- **Biography**
- **Commercial and Illustrative Photography**

### Job Readiness Skills

SYS #798265

(San Gabriel Valley Training Center)

This certificate provides hands-on job training in computer and assembly skills for the entry-level worker. Participants will improve their opportunities for employment and career advancement.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC CISQD</td>
<td>Computer Operations</td>
</tr>
<tr>
<td>VOC MFAR</td>
<td>Assembly/Repair Skills</td>
</tr>
</tbody>
</table>

### OCCUPATIONAL – WELDING TECHNOLOGIES

### Welding

SYS #340189

This certificate is designed to prepare students for entry-level employment as a licensed welder in the broad field of welding, including manufacturing, construction, fabrication and repair. Through theoretical and hands-on skills coursework, students prepare for industry licensing with an understanding of current guidelines and standards. Particular emphasis is placed on those competencies required for certification in structural steel welding. Course sequences can be modified to reflect industry experience or other individual needs.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WL40</td>
<td>Introduction to Welding</td>
</tr>
<tr>
<td>VOC WL70A</td>
<td>Beginning ARC Welding</td>
</tr>
<tr>
<td>VOC WL70B</td>
<td>Intermediate ARC Welding</td>
</tr>
</tbody>
</table>

### Occupational – Special Needs Population

**Recommended Electives:**

The Welding faculty recommends that students complement their studies with selected elective courses chosen from the list below. Students should meet with a professor of Welding to help you determine which of those electives would best suit your career plans.

- **Technical Mathematics – Manufacturing Applications**
- **Print Reading and Computations for Welders**
- **Certification for Welders**

### Licensed Welder

SYS #919193

This certificate is designed to prepare students for entry-level employment as a licensed welder in the broad field of welding, including manufacturing, construction, fabrication and repair. Through theoretical and hands-on skills coursework, students prepare for industry licensing with an understanding of current guidelines and standards. Particular emphasis is placed on those competencies required for certification in structural steel welding. Course sequences can be modified to reflect industry experience or other individual needs.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WL40</td>
<td>Introduction to Welding</td>
</tr>
<tr>
<td>VOC WL50</td>
<td>Oxyacetylene Welding</td>
</tr>
<tr>
<td>VOC WL51</td>
<td>Basic Electric Arc Welding</td>
</tr>
<tr>
<td>VOC WL53A</td>
<td>Welding Metallurgy</td>
</tr>
<tr>
<td>VOC WL60</td>
<td>Print Reading and Computations for Welders</td>
</tr>
<tr>
<td>VOC WL70A</td>
<td>Beginning ARC Welding</td>
</tr>
<tr>
<td>VOC WL70B</td>
<td>Intermediate Arc Welding</td>
</tr>
<tr>
<td>VOC WL70C</td>
<td>Certification for Welders</td>
</tr>
<tr>
<td>VOC WL80</td>
<td>Fabrication and Construction Welding</td>
</tr>
<tr>
<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
</tr>
</tbody>
</table>
Continuing Education

Welder with Concentration in Automotive Welding, Cutting & Modification
SYS #483743
Preparation as a Licensed Welder with additional skills and theoretical development in automotive welding, cutting and modification.

**Certificate Requirements:**
Completion of:
Licensed Welder Certificate
PLUS the following:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WL91</td>
<td>Automotive Welding, Cutting and Modification</td>
<td></td>
</tr>
</tbody>
</table>

Welder with Concentration in Gas Tungsten ARC Welding
SYS #108929
Preparation as a Licensed Welder with additional skills and theoretical development in gas tungsten ARC Welding.

**Certificate Requirements:**
Completion of:
Licensed Welder Certificate
PLUS the following:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WL90A</td>
<td>Gas Tungsten ARC Welding</td>
<td>54</td>
</tr>
</tbody>
</table>

Welder with Concentration in Semiautomatic ARC Welding
SYS #460640
Preparation as a Licensed Welder with additional skills and theoretical development in Semiautomatic ARC Welding.

**Certificate Requirements:**
Completion of:
Licensed Welder Certificate
PLUS the following:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC WL90B</td>
<td>Semiautomatic ARC Welding</td>
</tr>
</tbody>
</table>
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### Continuing Education

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<th>NONCREDIT COURSE LISTINGS (continued)</th>
</tr>
</thead>
<tbody>
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<td><strong>Occupational – Business</strong></td>
</tr>
<tr>
<td>Accounting, Fundamentals of</td>
</tr>
<tr>
<td>Accounting, Principles of Financial</td>
</tr>
<tr>
<td>Bookkeeping, Payroll and Tax</td>
</tr>
<tr>
<td>Business Communications</td>
</tr>
<tr>
<td>Business English</td>
</tr>
<tr>
<td>Business Mathematics</td>
</tr>
<tr>
<td>Business Organization and Management</td>
</tr>
<tr>
<td>Business Vocabulary</td>
</tr>
<tr>
<td>Business, Principles of</td>
</tr>
<tr>
<td>Continuous Quality Improvement (CQI), Principles of</td>
</tr>
<tr>
<td>Continuous Quality Improvement (CQI), Team Building</td>
</tr>
<tr>
<td>E-Commerce, Principles of</td>
</tr>
<tr>
<td>Exporting and Importing, Principles of Financial Planning</td>
</tr>
<tr>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>Human Resource Management</td>
</tr>
<tr>
<td>International Business, Principles of</td>
</tr>
<tr>
<td>International Marketing Concepts</td>
</tr>
<tr>
<td>Marketing, Principles of</td>
</tr>
<tr>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>Oral Communications for Business</td>
</tr>
<tr>
<td>Professional Selling</td>
</tr>
<tr>
<td>Real Estate Practice</td>
</tr>
<tr>
<td>Retail Store Management and Merchandising</td>
</tr>
<tr>
<td>Small Business Management</td>
</tr>
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BASIC SKILLS

BS ABE01 — Career Information and Guidance
Orientation to the college including enrollment procedures, test score interpretation, course selection, and career information. Course includes academic placement tests and/or vocational assessments available.

BS ABE02 — Adult Basic Education
Improves basic skills of adult learners. Content includes reading comprehension, language, and mathematics. Prepares students for the General Education Development (GED) Exam and the Armed Services Vocational Aptitude Batter (ASVAB) exam.

BS ABE03 — Adult Basic Education — Leadership Development
Leadership styles and individual leadership skills including effective communication, facilitation, problem-solving, decision-making and conflict resolution. Introduction to organizational structures, governance, models and group process.

BS ABE04 — Guidance and Orientation to Special Programs
Provides an overview of special programs at Mt. San Antonio College. Information regarding the College's mission, program guidelines, regulations, and eligibility requirements are presented.

BS ABE05 — Career Development
Career assessment, research and preparation; investigates career fields to determine interest; provides information on required skills and areas for professional growth. Includes assigned time for field investigation, individual assessment and skill building.

BS ABE06 — Basic Skills Foundation
Preparation for college credit courses; improves reading, mathematics, writing, and critical thinking by assessing current skills. Includes individual education plan to achieve career and educational goals.

BS ABE07 — Re-Entry Work Skills Needed for Today's Workforce
Development of skills necessary for employment. Topics include workplace ethics, job search techniques, resume writing and preparing for an interview.

BS CNSL5 — Career/Life Planning

BSHS ACDE — High School Academic Decathlon
Integration of high school language arts, music, art, social science, mathematics, economics and speech based on a central theme to compete in the United States Academic Decathlon.

BSHS ADRW — High School Expository Writing & Critical Reading
Prepares high school students for college level reading and writing. Develops advanced proficiency in expository, analytical and argumentative writing and emphasizes the development of critical college reading skills using a variety of fiction and non-fiction texts.

BSHS ALG1 — High School Algebra 1
Prepares high school students the key components of first year algebra. Variables and equations, real number operations, operations with polynomials, fractions, functions, systems of linear equations, inequalities, rational and irrational numbers, quadratic functions and problem solving.

BSHS ALG2 — High School Algebra 2
Prepares high school students the key components of second year algebra. Includes basic concepts of algebra, inequalities and the proof, linear equations and functions, products and factors of polynomials, rational expressions, irrational and complex numbers, quadratic equations and functions, variation and polynomial equations, analytic geometry, exponential and logarithmic functions, sequences and series, triangle trigonometry, trigonometric graphs and identities, trigonometric applications, statistics and probability, matrices and determinants.

BSHS ART1 — High School Art & Creative Expression
Artistic perception, creative expression, and aesthetic value of art for high school students. Historical and cultural influences. Original productions through design and drawing using a variety of media.

BSHS ART2 — High School - Art 2
Artistic perception, creative expression, and aesthetic valuing through experiences with art for high school students. Historical and cultural context of the visual arts. Original productions in design and drawing using a variety of media.

BSHS BIO — High School Biology
Fundamental areas of life science for high school students. Characteristics of living things, simple organisms, plants, animals, human biology, cell biology, physiology, genetics, heredity, adaptation, evolution and ecology.

BSHS CHEM — High School Chemistry
Chemistry for high school students. Includes atomic and molecular structure, chemical bonds, conservation of matter and stoichiometry, bases and their properties, acids and bases, solutions, chemical thermodynamics, reaction rates, chemical equilibrium, organic chemistry and biochemistry and nuclear processes.

BSHS CHN1 — High School - Chinese 1
Fundamentals of pronunciation and grammar, practical vocabulary; understand, read, write and speak basic Chinese. Geography, customs and culture of Chinese-speaking countries for high school students.

BSHS CIV — High School Civics/American Government
Civics and government for high school students. Includes the growth of democracy, federalism, separation of powers, checks and balances, civil liberties, civil rights, civic participation and comparative government. Assessment of global perspectives, constitutional interpretations, political processes, public policy, free enterprise and cultural pluralism.

BSHS CPTC — High School Computer Technology
Includes proper technique and operations using a computer, introduction to the computer operating system, basic hardware configuration and office technology programs; document creation and editing using Microsoft Office (Word, Excel, PowerPoint); word processing, database management, spreadsheets and multimedia presentation for high school students.

BSHS DIPLR — High School Diploma and Referral Program Learning
Designed to assist adult students who need coursework to complete their high school diploma requirements. Coursework is aligned to California K-12 State Content Standards. Students are awarded a high school diploma upon completion of the required credits and competencies.

BSHS EASC – High School Earth Science
Designed to stress the fundamentals of the study of Earth and of space. Earth’s place in the universe, dynamic Earth processes, energy in the earth system, biochemical cycles, structure and composition of the atmosphere and California geology.

BSHS ECON — High School – Economics
Economic principles and practices for high school students. Includes scarcity and choice, opportunity cost and trade-offs, economic systems, institutions and incentives. Markets and prices, supply and demand, competition income distribution, monetary policy, international economics and the role of government.

BSHS EELA — CAHSEE Prep: English Language Arts
CAHSEE English Language Arts, semesters A/B, is designed to stress the fundamentals of the high school English language arts standards. Genre’s and their characteristics: word analysis, reading comprehension, literary response and analysis, writing strategies, writing conventions and writing applications.

BSHS EEAMA — CAHSEE Math Prep
CAHSEE Math, semesters A/B, is designed to stress the fundamentals of the high school math standards. Number sense, statistics, data analysis probability, algebra, functions, measurement, geometry, algebra I and mathematical reasoning.
### Continuing Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSHS ENG1</td>
<td>High School - English 1</td>
<td>Introduces high school students to the foundations of literature using genre and theme experiences. Includes exploration of folk tradition, poetry, fiction, nonfiction and informational and visual media. Vocabulary development, writing strategies and applications, reading comprehension, listening and speaking strategies, language conventions, listening and speaking applications, literary response and analysis.</td>
</tr>
<tr>
<td>BSHS ENG2</td>
<td>High School English 2</td>
<td>Foundations of literature using genre and theme experiences for high school students. Exploration of oral tradition, poetry, fiction, nonfiction, drama and informational media. Vocabulary development, writing strategies and applications, reading comprehension, listening and speaking strategies, language convention, listening and speaking applications, literary response and analysis.</td>
</tr>
<tr>
<td>BSHS ENG3</td>
<td>High School English 3</td>
<td>Introduces high school students to the foundations of literature using a historical approach for high school students. Includes basic literature genres and techniques, and time-period based literature. Pre-colonial era, the American Revolution, the New England Renaissance, Slavery and the Civil War, the Frontier Era, the Modern Era, the Harlem Renaissance and Modern Drama.</td>
</tr>
<tr>
<td>BSHS ENG4</td>
<td>High School English 4</td>
<td>Introduces high school students to the foundations of literature through American literature using a historical approach for high school students. Social, political and intellectual trends connected with the time periods. Anglo-Saxon, Medieval period, English Renaissance, Renaissance drama, the early seventeenth century, the Restoration and the eighteenth century, the Victorian Age, the Romantic Era, the Victorian Age, the British poetic and prose.</td>
</tr>
<tr>
<td>BSHS GEOG</td>
<td>High School Geography</td>
<td>Physical and human aspects of world geography for high school students, and includes the physical features of the earth, climate and topography, and their effects on human development. Topics studied in the context of the cultural, political, historical and religious aspects of both historical and modern life throughout the world.</td>
</tr>
<tr>
<td>BSHS GEOM</td>
<td>High School Geometry</td>
<td>Foundations of geometry applications for high school students. Points, lines, planes, angles, constructions, reasoning skills and proofs, perpendicular and parallel lines, congruent triangles, quadrilaterals, proportion and similarity, right triangles and trigonometry, circles, polygons, and, volume, coordinate geometry, loci and coordinate transformations.</td>
</tr>
<tr>
<td>BSHS GRAF</td>
<td>High School Advanced Graphics/Printing</td>
<td>Advanced skills in graphics for high school students. Photo offset lithography and screen process printing. Business aspects of printing and graphics. Laboratory use of printing equipment.</td>
</tr>
<tr>
<td>BSHS HLTH</td>
<td>High School - Health Education</td>
<td>Increases high school students’ awareness of health issues, includes healthy behavior vs high-risk behavior, how health issues impact the community and environment. Uses skill-building approach that includes decision-making, role modeling, critical analysis, and goal-setting toward a healthy lifestyle.</td>
</tr>
<tr>
<td>BSHS JOUR</td>
<td>High School Journalism</td>
<td>Prepares high school students to work on school newspapers. Includes writing clear, concise and interesting articles, development of grammar, spelling, punctuation, style, sentence and paragraph form, interviewing techniques, news writing skills and analysis abilities to critique newspapers and periodicals.</td>
</tr>
<tr>
<td>BSHS KEY</td>
<td>High School - Typing/Keyboarding</td>
<td>Develops the skill of keyboarding for high school students. Emphasis will be placed on learning alphabetic and numeric keys by touch using appropriate techniques. Students will build on basic skills to improve speed and accuracy in order to create, format and edit a variety of documents.</td>
</tr>
<tr>
<td>BSHS LSC</td>
<td>High School Life Science</td>
<td>Fundamental characteristics of living things, simple organisms, plants, animals, human biology, physiology, genetics, heredity, adaptation, evolution and ecology for high school students.</td>
</tr>
<tr>
<td>BSHS MTH2</td>
<td>High School General Math</td>
<td>Basic mathematical foundations needed for daily life and higher level math courses for high school students. Includes concepts, methods and applications of basic math skills. Topics include whole numbers, fractions, decimals, measurement, basic geometry, basic strategies, ratios, percentages, beginning pre-algebra and preparations for algebra, various consumer-related topics and problem-solving.</td>
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<tr>
<td>BSHS MTH4</td>
<td>High School General Math</td>
<td>Basic mathematical foundations needed for daily life and higher level math courses for high school students. Includes concepts, methods and applications of basic math skills. Topics include whole numbers, fractions, decimals, measurement, basic geometry, basic strategies, ratios, percentages, beginning pre-algebra and preparations for algebra, various consumer-related topics and problem-solving.</td>
</tr>
<tr>
<td>BSHS MUSC</td>
<td>High School - Music Appreciation</td>
<td>Historical, cultural and genre-based aesthetic valuing of music for high school students. Vocabulary, interaction of words and music, influence of religion, theater, government and culture on musical style.</td>
</tr>
<tr>
<td>BSHS NS2</td>
<td>High School - Natural Science 2</td>
<td>Integration of advanced biological, physical and earth science. Introduces high school students to advanced scientific measurement and computation, the use of scientific laboratory equipment and basic scientific writing. Addresses overall skill sets in the areas of reading, writing and note-taking as it relates to science.</td>
</tr>
<tr>
<td>BSHS PLNG</td>
<td>High School Planning and Guidance</td>
<td>Complements existing school guidance and planning activities and motivates high school students to utilize those resources to their best advantage. Covers the challenges faced by students at the end of high school careers.</td>
</tr>
<tr>
<td>BSHS PSY</td>
<td>High School Psychology</td>
<td>Introduces high school students to the terminology, problems and major theories and characteristics of the history of psychology, research and statistics, child and adolescent development, sensations, perceptions, cognition, motivation, behavior, personality, abnormal behavior, individuality versus group identity and behavior and therapy.</td>
</tr>
<tr>
<td>BSHS SOC</td>
<td>High School Sociology</td>
<td>Designed to help high school students transition from arithmetic to algebra. Includes concepts, methods and applications of pre-algebra. Topics include operations with integers, expressions, equations, inequalities, percents, proportions, graphing, computational skills and problem-solving skills.</td>
</tr>
<tr>
<td>BSHS SPCH</td>
<td>High School Speech and Communication</td>
<td>Designed to develop the aspects of oral communication including voice, diction, poise and ease by preparation and practice in making small speeches, and participating in discussions, debates and oral interpretation. High school students will improve their writing and speaking organization through selection and arrangement of material, through transitions and rhetorical effect.</td>
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</tbody>
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CONTINUING EDUCATION

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BSHS SPN1 — High School Spanish, Conversation and Writing
Fundamentals of pronunciation and grammar, practical vocabulary, and the ability to understand, read, write and speak basic Spanish for high school students. Geography, customs and culture of Spanish-speaking countries.

BSHS SPN2 — High School Spanish 2
Designed for high school students to advance the fundamentals of pronunciation and grammar, practical vocabulary and the ability to understand, read, write and speak geography, customs, Spanish literature and culture of Spanish-speaking countries.

BSHS SS — High School - Single Survival “On Your Own - Preparation for Adult Living
This course increases student knowledge and ability in skills necessary for everyday living. High school students determine goals and values, education choices, career options, money management, health care and personal needs.

BSHS STG — High School Stagecrafts
Aspects for high school productions and creation of theatrical support services. Set design, set painting, construction, lighting and sound design and operations. Costume and make-up application, theater operations and stage management.

BSHS TAL2 — High School Topics in Algebra 2
Preparation for success in high school Algebra 2. Focuses on the basic and introductory concepts, formulas and standards of Algebra 2, including solutions of linear and quadratic equations, graphing, exponential functions and the complex number system.

BSHS TGD — High School Topics in Geometry
Preparation for success in high school geometry. Focuses on the basic and introductory concepts, formulas and standards of geometry, including points, lines, planes, angles, reasoning skills and proofs, perpendicular and parallel lines, triangles, quadrilaterals, polygons, area and volume.

BSHS USH — High School United States History
Designed for high school students to study various themes in history in order to examine the past from pre-colonial to the modern era. Includes the examination of politics and history, the role of ideas, economics and history, and the importance of cultural development. Assessment of religion in history, the role of individuals, the impact of science and technology, the environment and history and social life.

BSHS VDEO — High School Video and Media Production
Basics of video production and software. Includes storyboards, directing, filming, sounds, lighting, transitions, titles, voice-overs, music, film analysis, editing and producing software as appropriate for high school students.

BSHS WHS — High School World History
Gives high school students an understanding of humanity through the basic themes present in history: economics, politics, the roles of ideas, the importance of cultural development, religion, the roles of individuals, the impact of science and technology, geographical impact and cultural development. Students will also study pre-history to the modern era.

BSHS WREX — High School Expository Writing
Preparation for success in expository writing for high school students. Focuses on developing essay writing including introductory paragraphs, body paragraphs and concluding paragraphs in expository, descriptive, narrative and argumentative essays.

BS LANG1 — Language Skills Laboratory
Designed for ESL students either enrolled in a ESL class or awaiting admission, to enhance pronunciation, listening, writing and comprehension skills. Also open to AMLA, Foreign Language, American Sign Language students to enhance skills in the primary target language.

BS LANG2 — ESL Computer/Language Skills Lab
Enhance student’s communication skills by providing access to the internet, thereby completing assignments for courses offered throughout the college.

BS LRN01 — Short Term Review
Intensive review in the following subjects: reading, comprehension, vocabulary, grammar, basic math, pre-algebra, and algebra. Computer programs, instructional materials, and individual assistance are provided.

BS LRN02 — Math Skills Review
Increase basic math knowledge and reduce math anxiety. Topics include fractions, decimals, ratios, proportions, percents, and the application of these skills in life and work situations.

BS LRN06 — Personal Computer Applications
Increase typing and ten-key speed using computer software. Includes current word processing, spreadsheet, database software, keyboarding techniques, including correct posture; introduction to e-mail and the Internet; time management, decision-making, problem-solving and creative thinking.

BS LRN50 — Learning Support Laboratory
Learning and workplace skills are enhanced by computer use and instruction for students enrolled in or seeking enrollment in a college instructional program.

BS LRN72 — Reading Acceleration
Provides instruction and practice in techniques of reading acceleration and variable reading speeds. Students who repeat will improve reading speed and comprehension rates.

BS LRN76 — Improving Reading Comprehension
Prepares students for reading informational materials. Topics include spelling, reading comprehension, dictionary usage and how to read a textbook.

BS LRN81 — Improving Writing
Offers assistance to students who wish to improve prewriting, writing, editing and revising. Provides instruction in content and structure of sentences, paragraphs and essays; emphasizes development in writing through the integration of grammar and critical thinking.

BS MTH01 — Developmental Mathematics Concepts and Application
Hands-on activities and practical applications of algebraic principles: elementary geometry, signed numbers, ratio and proportion, factoring, pre-algebra, linear and quadratic equations, complex numbers, graphing, functions, sequences, linear and non-linear inequalities and systems, progressions, and sigma notation.

BS WRT2 — Basic Writing Skills Development - Basic Skills
Enhance basic skills in reading and writing, via the use of computer-assisted learning, e-mail and on-line tools.

BS TR10A — Introduction to Tutoring
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

BS TR10B — Tutoring in the Language Arts
Prerequisite: Permission of Tutorial Specialist
Tutoring in the language arts with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

BS TR10C — Tutoring as a Supplemental Instructor
Permission of Tutorial Specialist recommended
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

BS TR10D — Tutoring in Mathematics
Tutoring in mathematics with an emphasis on strategies to promote active learning using mathematics and dealing with specific obstacles in developmental algebra.

BS TR01 — All Subject Tutoring
Assistance in basic English and mathematics skills through tutoring and computer-based learning. Tutorial assistance in other subject areas is also available.
### Continuing Education

**BS TR62 — Tutoring Techniques**  
Explores learning theories and tutoring techniques for tutoring individuals and small groups. Emphasis is placed on encouraging independent learning.

**CITIZENSHIP**

**CITZ NAT — Citizenship for Naturalization**  
Intermediate and advanced students prepare for the interview for United States citizenship.

**DISABLED STUDENTS**

**DSPS LL01 — Lifelong Learning for the Special Needs Population**  
Educational activities for special needs students emphasizing physical, cognitive, social and emotional skill development.

**DSPS LRND1 — Clinical Speech Instruction**  
Designed to accommodate individual and group instruction for adults with speech and/or learning problems. Includes individual evaluation and speech improvement plan. Disorders addressed include phonology, fluency, voice and resonance, hearing impairment, cerebral vascular accident and acquired brain injury. Instruction is not available for students with dialed problems.

**DSPS LRND2 — High Tech Center Tutorial/Assistance Class**  
Advisory Prerequisite: Students must be referred by a counselor in Disabled Student Programs and Services (DSP&S) in order to register for this course.  
Designed for students with identified disabilities who have at least three academic units at Mt. SAC. Using adaptive technology, alternate media and specialized support, offers techniques and strategies to maximize abilities in academic classes. Students are required to provide their own data disks.

**DSPS LRND3 — Adaptive Academic Preparation**  
Designed for students who have been accepted into the Brain Injury Program at Mt. SAC. Includes specialized instruction and the use of computer software to improve cognitive skills (attention, memory, reasoning, etc.) needed for academic and vocational goals.  
English as a Second Language

**ESL LANG3 — English for Specific Uses (ESL)**  
Advanced ESL students improve speaking, writing, vocabulary and SCANS competencies related to vocations. Includes critical thinking, customer service, teamwork and autonomous learning strategies.

**ESL LVL1 — ESL - Level 1**  
Beginning to low English students build vocabulary, grammar and communication skills.

### ESL TOEFL — TOEFL Preparation

**ESL LVL2 — ESL - Level 2**  
High beginning English students build upon their base of vocabulary and improve grammar understanding through practice of listening, speaking, reading and writing skills. Students work independently and in groups to develop projects and make presentations that are meaningful to them.

**ESL LVL3 — ESL - Level 3**  
Low intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.

**ESL LVL4 — ESL - Level 4**  
High intermediate level students improve English communication and grammar through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.

**ESL LVL5 — ESL - Level 5**  
Low advanced level students improve English communication and grammar understanding through practice of listening, speaking, reading and writing skills. Activities include team projects, presentations and exams in preparation for academic/vocational success and encourage civic participation.

**ESL LVL6 — ESL - Level 6**  
High advanced level students improve English communication skills and prepare to transition into academic, vocational programs, or general community classes. Activities include teamwork, projects, presentations and exams to ensure life-long learning, civic participation and overall success.

**ESL PLVL1 — ESL - Pre-Level 1**  
Literacy-level English students build a base of vocabulary and grammar through practice of listening, speaking reading and writing skills.

**ESL SPKA — ESL - Speaking A**  
Beginning level students develop English listening comprehension and speaking fluency. Activities include talking in small groups or with partners, listening and responding to simple conversations, short presentations and pronunciation practice.

**ESL SPKB — ESL - Speaking B**  
Intermediate level students improve English oral proficiency in areas of pronunciation, listening comprehension and speaking skills. Through group discussions and short presentations, students practice speaking with clarity and fluency, present their ideas and opinions, and make cultural comparisons.

**ESL SPKC — ESL - Speaking C**  
Advanced level students expand listening and speaking strategies to facilitate academic preparation, workplace advancement and civic participation. Focus is on fluency, grammatical accuracy and appropriate social register. Activities include use of authentic material in group tasks and class presentations.

**ESL WRTA — ESL Writing - A**  
Beginning level students develop reading and writing skills that set the foundation for their English literacy. Material is based on familiar topics and American customs. Focus is on vocabulary expansion, introduction to reading passages, and accuracy in sentence-level writing.

**ESL WRTB — ESL Writing - B**  
Intermediate level students improve English reading and writing proficiency through a variety of reading material and writing topics. Students gain fluency and confidence through abridged book reports, process writing and peer editing, primarily at the paragraph level.

**ESL WRTC — ESL Writing - C**  
Advanced level students expand English reading and writing proficiency through a range of genres. American-style process writing is practiced in order to facilitate academic preparation and workplace advancement. Focus will be on interpretation of authentic material and development of editing strategies.

**HEALTH AND SAFETY**

**HLSF PEWT — Physical Fitness and Conditioning - Weight Training**  
An over-all fitness and physical conditioning program using weight machines, free weights and Olympic lifting exercises. This course is intended for the beginner to advanced exerciser. Improved results will be achieved through active participation for students who repeat the course.

**HLSF PEWRS — Physical Fitness and Conditioning - Wrestling**  
Wrestling to develop overall fitness and conditioning. Appropriate for beginner and advanced practitioners. Improved results will be achieved through active participation.

**HLSF PFBT — Physical Fitness and Conditioning - Football**  
An increased level of physical conditioning will be attained through systematic and progressive exercises. These exercises include stretching, controlled running, muscular strength and power through weights, speed and agility developed through drills.
HLSF PEWEX — Water Exercise - Phase I
Water exercise program that provides an individual workout with an emphasis on strength development, cardiovascular fitness improvement and increased flexibility. Lap swimming lanes are available. Improved results will be achieved through active participation for students who repeat the course.

HLSF PEWP — Physical Conditioning - Water Polo
Water polo training to improve overall fitness and conditioning. Water polo drills and dry land exercises will be used to improve participant's strength, agility and aerobic condition.

OLDER ADULTS

OAD AT14 — Introduction to Art Fundamentals
An entry level course designed for non-art majors emphasizing creative expression through the visual arts. Painting, drawing, printmaking, and sculpture are explored to introduce the student through various media to the arts.

OAD AT15B — Drawing: Beginning
Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.

OAD AT20 — Intro Exhibition Design and Professional Practice
Provides knowledge and hands-on skills in exhibition design and installation to display an esthetically effective art exhibition. Students will be familiarized with the necessary practical knowledge used by an emerging artist; historical and contemporary terms, examination of culture and universal symbology and application, issues, theories, movements and media in the context of art exhibition productions.

OAD AT23A — Painting
Emphasizes creative self-expression through the painting media. Students will develop the ability to conceptualize and solve compositional and technical painting problems.

OAD AT30A — Ceramics
An exploration of ceramic techniques and creative expression. Includes vocabulary, theory, elements and principles of ceramic form through projects and critique.

OAD AT31 — Ceramics: Hand Construction
Basic methods of hand construction. Special projects in structural, architectural and sculptural form.

OAD AT40A — Sculpture - Beginning
An overview of traditional and contemporary approaches to sculpture. Emphasizes principles of sculptural design and concept development. Includes exploration of technique and materials as an integral part of creative expression.

OAD AT41A — Sculpture - Life
Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.

OAD AT41B — Sculpture - Life
Sculptural study of human figure with emphasis on composition and human anatomy. Advanced projects using materials and techniques suitable for the human form. Students who repeat this course will further develop perceptual skills in clay modeling from the human figure.

OAD AT42 — Sculpture: Mold Making
Construction and use of flexible and plaster molds. Students who repeat this course will improve skills by further instruction and practice.

OAD AT43 — Introduction to Printmaking
Introduces creative techniques in fine art printmaking using relief and intaglio projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion and oral/written criticism.

OAD AT44 — Printmaking - Relief and Lithography
Creative techniques in fine art printmaking focusing on lithography. The possibilities of combination of planographic with relief methods will be explored. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.

OAD AT45 – Printmaking – Collagraph/Monotype/Silkscreen
Creative techniques in fine art printmaking using collagraphs, monotypes, monoprints and stencil projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of mixed media printmaking's aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.

OAD AT46 — Sculpture: Special Effects Makeup
Advisory Prerequisite: OAD AT 41A and/or OAD AT42
Modeling, molding, casting and application of special effects make-up appliances and masks to the human anatomy as it informs sculptural form and specialized molding and casting techniques and materials.

OAD AT47 — Life
Lifesize figure. Students who repeat this course will improve skills by further instruction and practice.

OAD AT49 — Lifelong Learning for Older Adults - Physical Fitness
Maintain and/or improve overall physical fitness through a variety of conditioning exercises specifically designed for the older adult.

OAD AT50 — Lifelong Learning for Older Adults - Crafts
Develops creative and artistic skills through visual and fine motor coordination utilizing various arts and crafts materials. Students will learn skills to make crafts while sharing individual artistic expertise with peers.

OAD AT51 — Lifelong Learning for Older Adults - Mentally Fit
Maintain and/or improve overall mental fitness of the older adult through educational activities promoting critical thinking skills. Students will be presented with mental exercises and intellectual stimulation to enhance cognitive skills.

OAD ELL03 — Lifelong Learning for Older Adults - Crafts
Elements, processes and techniques of fiction writing. Includes genre, settings, point of view, character sketch, plot development, description and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

OAD ENG8A – Creative Writing – Fiction
Examines the student's development as a poet.

OAD FNA03 — Oil Painting
Provides the fundamental principles of drawing, design, color and composition for oil painting. Emphasis will be on creative expression to develop primary skills and techniques for oil painting as they relate to composition and technique. Students will receive a supply list at the first class meeting.

OAD FNA04 — Watercolor Painting
The fundamental principles of watercolor painting. Emphasis will be on creative expression to develop primary skills for watercolor painting as they relate to composition and technique. Students will receive a supply list at the first class meeting.

OAD FNA05 — Creative Writing (Writing Your Autobiography)
Write about your own memories and experiences for the purpose of creating articles, memoirs, and the construction of your life story through discussion, sharing of experiences and recalling past events. This class is suitable for all levels of writers; includes writing exercises and analysis. Long-hand method of writing will be used.

OAD FNA12 — Drawing - Beginning Through Advanced
Drawing while emphasizing the development of perceptual and technical skills. Students will advance their abilities in dry and fluid media while expanding their use of the formal elements and principles. The development of works of art will utilize observation of single objects, still life, and landscape for representation and expression. Students will receive a supply list at the first class meeting.
**OAD FRA04 — Quilting**
Learn patchwork, appliqué, and various ways to form quilting patterns and gain working knowledge of hand or machine quilting. Information on materials, equipment, planning, design and general methods in creating a quilt will be covered. Students will receive a supply list at the first class meeting.

**OAD HTH02 — Healthy Cooking for Older Adults**
Plan simple, healthy meals for the older adult. Identify how to stock a kitchen with quality foods as dietary guidelines are presented. Includes easy microwave oven cooking, cuisine for singles and doubles, and meals to cook once and eat twice! Food safety concerns will also be discussed.

**OAD MOX01 — Mobility Through Exercise - Physical Conditioning**
For older adults who are interested in improving their physical condition. Involves all major muscles promoting strength and toning, improving range of motion and flexibility, and increasing endurance and coordination. Students are encouraged to participate at their own level. Appropriate music is utilized to enhance student motivation and class participation.

**OAD MOX02 — Mobility Through Exercise - Slow Stretch / Thai Chi Movement**
Designed to increase strength and agility while improving peace of mind and reducing stress. Involves low impact movements that flow at a smooth, even tempo, making for improved balance as body weight is shifted. The movements will result in high levels of body control and increased powers of motion concentration. Several different moves of Tai Chi will be covered.

**OAD MOX04 — Mobility Through Exercise - Yoga**
Yoga is an ancient system of gentle stretching exercises and breathing techniques that enhance physical well-being. Focuses on yoga methods that improve stamina, lung capacity, flexibility, muscle tone, circulation, cardiovascular performance and respiration.

**OAD MOX06 — Mobility Through Exercise - Water Exercise**
This low impact water exercise program involves aerobic conditioning, strength training, and stretching in a water environment which minimizes impact on joints and the body. Swimming skills are not required for participants. This is not an individual swim class.

**OAD MOX07 — Mobility Through Exercise - Physical Fitness Using Music to Enhance Skill Development**
Enables students to increase balance, coordination, strength, flexibility and memory function through a progressive fitness program using music to enhance skill development.

**OAD MOX09 — Mobility Through Exercise - Strength Training Using Resistance Bands**
Resistance training for isolation of targeted muscle groups to increase strength, range of motion, flexibility, and increase bone density using toner bands. Designed to challenge all major muscles. Students are encouraged to participate at their own level. In addition, slow stretching and breathing techniques will be taught.

**OAD MOX10 — Beginning Self-Defense for Older Adults**
Effective self-defense techniques for older adults to use at home, work, traveling or just out and about on a daily basis. The focus is on techniques that are highly effective and easy to learn, with no prior experience necessary. Learn self-defense techniques and gain knowledge to reduce your risk of becoming a victim of crime.

**OAD MOX11 — Fall Prevention: Balance and Mobility**
Addresses, particularly for older adults, the risks and fears associated with falling. Includes setting realistic goals, minimizing environmental risks and balance exercises.

**OAD MUSCE — Creative Expression through Music**
Promotes creative expression through music and includes discussion, singing, listening and interaction for older adults. Concentration will be on various musical styles and historical periods in which music plays specific roles.

**OAD MS19 — Elementary Organ**
Group and individual instruction in registration, pedal technique, and interpretation of standard organ literature will be given in this course.

**OAD MS25A — Jazz - Improvisation (Instrumental Or Voice)**
Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Students who repeat this course will improve skills through further instruction and practice.

**OAD MS25B — Jazz Improvisation**
Styles and techniques of improvisation. Each student must furnish his own instrument and be able to perform individually and with the class.

**OAD MS30 — Collegiate Chorale**
A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills.

**OAD MS32 — Masterworks Chorale**
This SATB choir will perform major choral works ranging from the Baroque era to the 20th century. Although there is no audition required for this group, prior choral experience is preferred. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory.

**OAD MS36 — Concert Band**
The group will study and perform standard and new band literature. Experience will be given to capable student directors, soloists, arrangers, and composers. Attendance is required at all public performances.

**OAD MS38 — Ensemble**
The study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice.

**OAD MS39 — Laboratory Band**
Study and performance of jazz and popular music of all types. Provides the necessary training and experience for MUS 47, Jazz Band, or for the improvement of skills necessary for employment in the field. Students who repeat this course will improve skills through further instruction and practice.

**OAD MS47 — Jazz Band**
Lectures, demonstrations, recordings, rehearsals, and performance will cover all types of popular music and jazz. Preference will be given to performers playing more than one instrument.

**VOC ESD02 — Production of Boutique Craft for Retail Sales**
Prepares the student to create individual designs for mass production and/or one-of-a-kind crafts. Marketing, pricing, cost analysis and proper care of equipment included. Students will receive a supply list at the first class meeting.

**VOC ESD03 — Lettering Styles and Advertising Calligraphy**
Presents styles of calligraphy as they are used in the arts, media, and advertising fields. Includes proper placement and proper size of lettering styles. Students will receive a supply list at the first class meeting.

**VOC ESD05 — Intermediate Ceramic Productions**
Includes the techniques used to create finished ceramic pieces; including the art of chalking on ceramics in the bisque form and wood surfaces by using oil based stains, metallic stains, colored creams, rubs and metallic and bronze finishes. Finalizing some pieces with electrical parts and mounting on wood bases will be considered. Discusses proper equipment usage and maintenance. Marketing and cost analysis will be covered. Students will receive a supply list at the first class meeting.
VOC ESD06 — Craft Painting for Business Opportunities
Painting on all types of surfaces including fabric, glass, wood, tin, plaster and plastic. Creativity and individual expression will be encouraged. Special painting techniques on each type of surface will be demonstrated and discussed. Includes product design, marketing and proper use of equipment and maintenance. Marketing and cost analysis will also be covered. Students will receive a supply list at the first class meeting.

VOC ESD07 — Handcrafted Needlework for Retail Sales and Boutiques
Presents basic needlework techniques in knitting, crocheting, needlepoint, crevel, embroidery and plastic canvas for mass production as well as one-of-a-kind creations. Students solve fitting problems and make professional-looking garments. Includes proper yarn selection, pattern selection, proper maintenance of equipment and organization of work. Students will receive a supply list at the first class meeting.

VOC ESD08 — Jewelry Production and Design for Retail Sales
Wire-worked jewelry design and production for marketing. Techniques such as wire wrapping, coiling, hammering, etc., which may incorporate beads, cabochon stones and free-form gemstone slabs will be covered. Discussion of proper equipment and maintenance, proper display for sales purposes, pricing and inventory control will be taught. Students will receive a supply list at the first class meeting.

VOC ESD09 — Sewing and Design
Presents basic sewing techniques for mass production as well as one-of-a-kind creations. Learn to solve fitting problems and make professional looking garments. Tailoring, pattern making, cutting and style design will be taught. Students are responsible for their own supplies and equipment. Proper maintenance of equipment and organization of work will be covered. Students will receive a supply list at the first class meeting.

VOC ESD10 — Beginning Decorative Art Production for Retail Sales
Introduction to acrylic paints and associated mediums including painting on a variety of surfaces. The use of aero decorative art brush strokes will be incorporated into a step-by-step method on specific projects. Marketing and pricing of finished products will be presented.

VOC ESD11 — Intermediate Decorative Art Production for Retail Sales
Use of acrylic paints and associated mediums including painting on a variety of surfaces. Patterns are provided for student’s use. More advanced aero decorative art brush stroke techniques will be incorporated into a step-by-step method on specific projects. Includes marketing and pricing of products. Students will receive a supply list at the first class meeting.

VOC ESD15 — Jewelry/Lapidary Production Design
Jewelry making and stone cutting/polishing, lapidary work. Includes appropriate maintenance of equipment and workshop safety. Includes outings to jewelry suppliers, shows and rock hunting trips.

CONTINUING EDUCATION
Continuing Education

VOC AGL16 — Horse Production
Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes actual experience in the care of horse and tack.

VOC AGL17 — Sheep Production
A study of the various types of sheep enterprises and the ways and means of entering them. Includes class, laboratory and project work concerning all phases of sheep management, sheep handling, feeding, shearing, breeding, lambing and marketing. Practical skills taught on the school farm and sheep farms in the area.

VOC AGL18 — Horse Ranch Management
Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrous cycles, breeding problems and stallion care.

VOC AGL19 — Horse Hoof Care
Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

VOC AGL20 — Horse Behavior and Training
Breaking and starting young horses. Concentrates on halter training of foals, ground work on yearlings, and green-breaking two-year-olds and up. Includes lunging techniques, driving, and breaking to a saddle. Training in collection, turning, backing, leads, and trailer loading.

VOC AGL30 — Beef Production
Principles and practices in the selection and management of feeders, market and breeding beef cattle. Economics of production, utilization of farm-grown feeds, and feedlot operations will be stressed.

VOC AGL34 — Livestock Judging and Selection
Study of form and appearance of farm animals as related to their function. Includes judging of breeding and terminal livestock as well as carcass evaluation.

VOC AGL96 — Animal Sanitation and Disease Control
Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmissions of infectious diseases, principles of sanitation and fundamentals of immunology.

VOC AGL97 — Artificial Insemination of Livestock
Theory and application of artificial insemination of livestock, including semen evaluation and processing. Pregnancy diagnosis will be covered as an aid to the inseminator.

VOC AGR1 — Horticultural Science
The basic horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.

VOC AGR2 — Plant Propagation/Greenhouse Management
Plant propagation and production practices with emphasis on florists’ plants, woody ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing and division. Stresses greenhouses and other environmental structures for plant propagation and production.

VOC AGR4 — Ornamental Plants - Trees and Woody Shrubs
Identification, growth habits, culture and ornamental use of landscape trees and shrubs adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists.

VOC AGR6 — Home Gardening
Includes lectures, demonstrations and hands-on experience in organic gardening, indoor plants, introduction to bonsai, fruit orchards, traditional gardening and information on pesticides. The study of design, propagation methods, pruning, fertilizing, and a general understanding of horticulture will be included.

VOC AGR8 — Ornamental Plants - Herbaceous
Identification, growth habits, culture and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, groundcovers and vines adapted to climates of California. Plants emphasized will come from the California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification test plant lists.

VOC AGR25 — Floral Design 1
Application of principles in the art of floral design as to form, style and composition. Designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages are included in the laboratory setting.

VOC AGR26 — Floral Design 2
Continued application of principles in the art of floral design. Contemporary design theory emphasizing creativity, self-expression and professional design situations.

VOC AGR27 — Floral Design 3
Advanced application of principles in the art of holiday designs, party and wedding designs, and sympathy designs. Florist management operations will be emphasized.
hands-on experience in design and installation techniques. Irrigation efficiency testing will be incorporated into the initial design. Trouble-shooting procedures including field testing of flow devices, and uniformity of water distribution. Students will gain hands-on experience maintaining, servicing and repairing diesel engines.

VOC AGR56 — Engine Diagnostics
Analysis and evaluation of tractor power failure. Students gain actual hands-on experience in the proper diagnostic procedures of power equipment. Service, maintenance and repair of tractor electrical systems: electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

VOC AGR57 — Power Train Repair
Service, maintenance and repair of power trains. Students gain experience with clutches, transmissions, differentials, power take-off units, and final drive used to transmit power on tractors and other outdoor power equipment.

VOC AGR62 — Landscape Irrigation - Design and Installation
Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

VOC AGR63 — Landscape Irrigation Systems Management
A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble-shooting procedures including field testing of valves and controllers. Irrigation efficiency testing will be incorporated to demonstrate proper methods of water audits and systems.

VOC AGR64 — Landscape Irrigation - Drip and Low Volume
Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, installation techniques, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.

VOC AGR71 — Landscape Construction Fundamentals
Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include surveying techniques, utilities (gas, water, electricity), woodworking and masonry.

VOC AGR72 — Landscape Hardscape Applications
Landscape construction pertaining to landscape in the landscape. Estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

VOC AGR75 — Urban Arboriculture
Care and management of ornamental trees. Includes pruning techniques, fruit tree care, bracing, cabling, and pest control. Safe practices in the use of equipment including the use of ropes, chippers, boom trucks, chain saws, and identification and evaluation of common trees. Prepares students for the tree worker and arborist certification exams.

VOC AGR76 — Aviculture - Cage and Aviary Birds
Presents cage and aviary birds marketed in the wholesale and retail pet trade, including identification, nutrition, breeding, disease prevention and control, aviary construction and providing the proper environment. Includes information on psittacines, soft bills, finches, game birds, poultry and ornamental waterfowl.

VOC ARC16 — Basic CAD and Computer Application
Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). Students who repeat this course will improve skills through further instruction and practice.

VOC ARC18 — Architectural Computer Aided Design Elements
Intermediate CAD (Computer Aided Design and Drafting) specifically for architectural design and production. Portfolio of 2-D drawings and 3-D CAD models will be produced.

VOC ARC26 — Advanced Architectural Computer Aided Design
Advanced architectural CAD drawings. Portfolio of working drawing and presentation applications of integrated 2-D and 3-D CAD models will be produced. Students who repeat this course will improve skills through further instruction and practice.

VOC BA07 — Principles of Accounting - Financial
Introduction to financial accounting which provides the foundation for continued coursework in accounting. Includes accounting concepts and techniques essential to the administration of a business enterprise, analyzing and recording financial transactions, accounting valuation and allocation practices and the preparation, analysis and interpretation of financial statements. Gives the student the tools and methods needed for decision making.

VOC BCA11 — Fundamentals of Accounting
Accounting vocabulary and theory, equations to solve word problems, percentages, simple and compound interest, payroll, business taxes, present value, investments, inventory, depreciation, financial statement analysis and ratios.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA53</td>
<td>Ten-Key Calculations</td>
<td>Operation of electronic calculators by the touch method to solve business and accounting problems. Focuses on the application of calculator features to specific business concepts including banking records, payroll, invoice pricing and inventory.</td>
</tr>
<tr>
<td>VOC BA68</td>
<td>Business Mathematics</td>
<td>Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.</td>
</tr>
<tr>
<td>VOC BA70</td>
<td>Payroll and Tax Accounting</td>
<td>Examines all areas of on-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal and state income taxes and their reconciliation. Laws related to Worker’s Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.</td>
</tr>
<tr>
<td>VOC BA71</td>
<td>Financial Planning</td>
<td>Personal financial planning for students who wish to understand their own finances or assist others in money management. Topics include income taxes, consumer credit, budgeting home ownership, banking functions, insurance, retirement planning investing and time value of money.</td>
</tr>
<tr>
<td>VOC BA72</td>
<td>Bookkeeping - Accounting</td>
<td>Fundamental bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of a practice set.</td>
</tr>
<tr>
<td>VOC BA75</td>
<td>Using Microcomputers in Financial Accounting</td>
<td>Application of basic accounting concepts utilizing ledger software program. Hands-on use of a microcomputer to process accounting transactions, prepare statements and reports, and complete accounting cycle tasks. Completion of a computerized accounting practice set will be required.</td>
</tr>
<tr>
<td>VOC BA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
<td>Analyze financial data and prepare managerial accounting reports using Excel software. Development of &quot;what-if&quot; formulas to be used as an aid in decision-making. Manufacturing and consolidation worksheets, financial statement analysis, and statement of cash flows.</td>
</tr>
<tr>
<td>VOC BM10</td>
<td>Principles of Continuous Quality Improvement</td>
<td>History and evolution of thought in Continuous Quality Improvement, including the theories and methods of Deming, Juran and Crosby. The quality management process and tools for the continuous improvement of quality are presented. Relevant case studies are included.</td>
</tr>
<tr>
<td>VOC BM12</td>
<td>Continuous Quality Improvement Team Building</td>
<td>Advisory Prerequisite: VOC BM 10 Provides comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Students completing the course will be qualified to participate as members of Continuous Quality Improvement teams, create and evaluate problem solutions applying tools for improvement planning and team decision making, and build an effective improvement plan.</td>
</tr>
<tr>
<td>VOC BM21</td>
<td>Principles of E-Commerce</td>
<td>A hands-on course focusing on learning the principles of E-commerce through the use of the internet. Students study the economic importance of E-commerce domestically and internationally. Includes uses of the internet, consumer buying, retail and business purchases, internet marketing, digital advertising, global E-commerce and business Web sites.</td>
</tr>
<tr>
<td>VOC BM51</td>
<td>Principles of International Business</td>
<td>An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including but not limited to: accounting, finance, human resources, management, operations, production, purchasing and strategic planning.</td>
</tr>
<tr>
<td>VOC BM52</td>
<td>Principles of Exporting and Importing</td>
<td>Acquaints the student with the vocabulary, acronyms and the basic vocabulary needed for an understanding of and participating in the exporting and importing of goods and services.</td>
</tr>
<tr>
<td>VOC BM56</td>
<td>Human Relations in Business</td>
<td>Behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student’s business advancement and lifelong learning. Class discussions focus on the student’s understanding of interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Business Organization and Management</td>
<td>Functions of management, techniques of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
<td>Direction of people including guidance, control, supervisory problems, training, job analysis, interviewing, testing, rating and other functions involving human resources. Designed to improve the overall understanding of the relationship between the individual and the business organization.</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
<td>Practical problems encountered in organizing and operating a small business enterprise: initiating the business, financial and administrative control, legal and government relationships and other related considerations.</td>
</tr>
<tr>
<td>VOC BM85</td>
<td>Special Issues in Business</td>
<td>Provide business majors with a forum to gain knowledge, develop techniques, problem solve and implement an actual business plan. Special emphasis will be placed on the particular project of the actual business used as the class project.</td>
</tr>
<tr>
<td>VOC BO05</td>
<td>Business English</td>
<td>Skills and techniques of English, as applied to business situations. Emphasis on effective paragraphs and memos.</td>
</tr>
<tr>
<td>VOC BO25</td>
<td>Business Communications</td>
<td>Written communications including letters and memos meeting a variety of situations in the business environment. Includes writing of good news, bad news, sales, claims and persuasive correspondence; letters and resumes appropriate to job seeking and application; and practicing oral skills as applied to job interviews and business reports.</td>
</tr>
<tr>
<td>VOC BO26</td>
<td>Oral Communications for Business</td>
<td>Designed to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.</td>
</tr>
<tr>
<td>VOC BO96</td>
<td>Spelling and Vocabulary for Success</td>
<td>Learn to spell and define troublesome words. Improve basic spelling and vocabulary used by business and industry. Includes proper use of dictionary; word division; adding suffixes and prefixes; synonyms; computer-related vocabulary; and business vocabulary. Note: VOC BO 96A and VOC BO 96B are equivalent to VOC BO 96.</td>
</tr>
<tr>
<td>VOC BO96A</td>
<td>Business Vocabulary</td>
<td>Develops a broad word command of new and specialized business vocabulary for use in various businesses. Improves vocabulary to enhance written and oral communication.</td>
</tr>
<tr>
<td>VOC BM85</td>
<td>Real Estate Practice</td>
<td>Office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. A course in real estate practice must be completed within 18 months of licensure.</td>
</tr>
</tbody>
</table>
CONTINUING EDUCATION

**VOC BS35 — Professional Selling**
Principles of selling and the role of a salesperson in the marketing process. Includes characteristics and skills necessary for a successful salesperson, techniques for prospecting and/or qualifying buyers, buyer behavior and critical steps in the selling process. Students develop and offer a sales presentation for a selected product, service or concept.

**VOC BS36 — Principles of Marketing**
Organization and function of the system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.

**VOC BS50 — Retail Store Management and Merchandising**
Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service.

**VOC BS70 — International Marketing Concepts**
Factors unique to foreign economies, cultural environments, political/legal problems, marketing intelligence procedures, international product policy, distribution and market channels, promotion and pricing decisions.

**VOC BS85 — Special Issues in Marketing**
Provides marketing majors with a forum to gain knowledge, develop techniques, problem-solve and implement an actual business marketing plan. Special emphasis will be placed on the particular project of the actual business used as the class project.

**VOC CP10 — Operating the Macintosh Computer**
Introduction of Windows based operating system and applications. Simple business examples using up-to-date browser, word processing, spreadsheet, database management and presentation software; and integration of software applications. Hands-on instruction on Windows based computers.

**OCCUPATIONAL — COMPUTER OPERATIONS**

**VOC CPBC1 — Basic Computing Level 1**
Introduction to the personal computer, including terminology and basic computer operations in a Windows environment. Instruction is hands-on. Note: Students may take this class only twice consecutively. Registration is first-come, first-served. Students must register in person, and may register for only one class per site.

**VOC CPBC2 — Basic Computing Level 2**
A hands-on course focusing on ways to create documents in applications such as Microsoft Word; includes basic computer maintenance and problem-solving techniques. Note: Students may take this class only twice consecutively. Registration is first-come, first-served. Students must register in person, and may register for only one class per site.

**VOC CPBC3 — Basic Computing Level 3**
Prerequisite: VOC CP-BC2 Basic Computing Level 2
Designed to increase word processing skills through creative projects which introduce computer graphics. Students will further their understanding of proper computer care and maintenance.

**VOC CPCC — Creative Computing**
Develops creative skills in utilizing graphic designs for projects such as business cards, letterhead, labels, flyers, posters, greeting cards and computer-generated fabric designs. Proper marketing skills will also be discussed.

**VOC CPL1 — Computer Laboratory**
A lab study program designed to complement the lecture materials presented in computer program instructional courses.

**VOC CP11 — Internet Research for Business**
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (File Transfer Protocol) and mailing lists.

**VOC CP12 — Office Computer Applications**
Overview of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.

**VOC CP13 — Using Web Page Software**
Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.

**VOC CP14 — Data Entry**
Data entry using a microcomputer. Includes intensive skill building on the ten-key pad and development of keyboarding skills for entering formatted and non-formatted text, both alphabetic and numeric, in a variety of business applications.

**VOC CP20 — Word for Office / Business Professionals**
Extensive hands-on instruction using Microsoft Word and its language, editing and formatting tools to create, revise and format various business and report documents. Also create complex publication documents using advanced formatting techniques and tools.

**VOC CP28 — Office Management Skills**
Training and skill building in filing systems and procedures, proofreading, telephone techniques, faxing, emailing and electronic calendaring of events, appointments and meetings.

**VOC CP29 — Computer Keyboard Skills Building**
Using microcomputers to increase speed and accuracy through intensive drills. Students will have their keyboarding skill diagnosed and appropriate drill work will be prescribed. Students who repeat this course will improve skills through further instruction and practice.

**VOC CP30 — Desktop Presentations Using PowerPoint**
Use PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies. Students who repeat this course will improve skills through further instruction and practice.

**VOC CP31 — Internet Research for Business**
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (File Transfer Protocol) and mailing lists.
Continuing Education

**OCCUPATIONAL — CORRECTIONAL SCIENCE**

**VOC CRS10 — Introduction to Correctional Science**
Overview of the field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as a member of the Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.

**VOC CRS15 — Control and Supervision of the Offender**
Examine methods of controlling and supervising inmates. Emphasizes California’s methods in rapidly-expanding institutions.

**VOC CRS20 — Correctional Law**
Legal and due process rights for inmates. Inmate rights vs. needs of society, State, federal and appellate court decisions.

**VOC CRS25 — Probation and Parole**
Historical development of probation and parole with emphasis on current California programs. Defines the roles of courts, parole boards and the duties and responsibilities of the staff of probation and parole agencies.

**VOC CRS30 — Ethnic Relations in Corrections**
A historical survey of minority roles, problems and relationships in America. Stresses cultural and racial differences and interpersonal relationships of correctional staff and clients.

**VOC CRS35 — Interviewing and Counseling in Corrections**
Techniques of interviewing and counseling in the field of corrections with emphasis on practical application. Needs of the client and agency will be stressed.

**VOC CRS40 — Crime and Delinquency**
Criminal behavior and types of crime and effects on society and victims. Stresses property crime, property offender, motivation and methods of control used by society.

**VOC CRS45 — The Violent Offender**
Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim.

**OCCUPATIONAL — ELECTRONICS**

**VOC EL10 — Introduction to Mechatronics**
An introduction to the field of mechatronics, a combination of conventional electronic technology with mechanical and computer technology. Special emphasis is on robotics. Hands-on activities include the building of a robot.

**VOC EL11 — Technical Applications in Microcomputers**
Use of the personal computer (PC) in electronics for technically related applications. Includes word processing, spreadsheet, database, computer presentation methods, e-mail and job searches. Students who repeat this course will improve skills through further instruction and practice.

**VOC EL12 — Computer Simulation and Troubleshooting**
Use of the personal computer for simulation and troubleshooting of both analog and digital electronic circuits. Circuit analysis, value substitution, and fault diagnostics will be done with the emphasis on “Electronics Workbench/Multisim” software. Students who repeat this course will improve skills through further instruction and practice.

**VOC EL50A — Electronics Theory**
Corequisite: VOC EL50BL.
DC circuit theory covering resistive circuits, basic components, Ohm’s Law, Kirchoff’s Law, and network theorems. (Students seeking a survey course in electronics could take ELEC 90, Survey of Electronics, rather than ELEC 50A or 50B.)

**VOC EL50B — Electronics Theory**
Corequisite: VOC EL50A.
AC circuit theory covering inductors, capacitors, impedance, filters, decibels, and resonance. Analysis involves the use of complex numbers. Stresses passive components.

**VOC EL51 — Electronic Devices Theory**
Solid-state devices and circuits, including BJT and FET transistors, rectifier diodes, op-amps, voltage regulators, oscillators, and timers. Emphasizes configurations, classes, load lines, characteristics curves, gain, troubleshooting, and frequency response.
VOC EL53 — Communications Circuits Theory
Analog and digital communication circuits theory. Emphasizes analog and digital modulation principles in AM, FM, SSB, PLL, FDM, TDM, modems, fiber optics, and telecommunications circuits.

VOC EL54A — Industrial Circuits Theory
Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UUT devices.

VOC EL54B — Industrial Electronic Systems
Expands on circuit theory and demonstrates systems application of industrial electronics including robotics, industrial production, automation, programmable and motor controllers. Emphasis is on programmable logic controllers.

VOC EL55 — Microwave Communications — Lecture
Microwave components, circuit theory, and their applications with emphasis on satellite technology. Stresses Gunn diode oscillators, transmission lines, waveguides, Smith Charts, components, amplification, frequency analysis, and measurement techniques.

VOC EL56 — Digital Electronics — Lecture
Combinational and sequential logic circuits emphasizing number systems, binary math, basic gates, Boolean algebra, Karnaugh maps, flip-flops, counters, and registers. Stresses design and troubleshooting techniques.

VOC EL61 — Electronic Assembly and Fabrication
Assembly and fabrication techniques in basic soldering, de-soldering and surface mount technology. Construction of coaxial and Category 5 cabling and connectors. Includes an overview of types of printed circuit board design. Students who repeat this course will improve skills through instruction and practice.

VOC EL62 — Advanced Surface Mount Assembly and Rework
Advanced course in assembly and repair (soldering) on surface mount assemblies. Prepares for the IPC surface mount assembly and rework certifications.

VOC EL74 — Microprocessor Systems
Emphasizes the software/hardware architecture for the typical microprocessor environment. The software instruction set and the hardware interface circuit design are covered for the microprocessor. Fundamentals and terms are covered for the personal computer (PC).

VOC EL76 — Radio/Telephone Communications
Prepares qualified electronic technicians for the F.C.C. and/or N.A.R.T.E. commercial licenses for technicians and engineers in the communications field. Students who repeat this course will improve skills through further instruction and practice.

VOC EL81 — Laboratory Studies in Electronics Technology
Extended laboratory experience supplementary to those available in the regular program. Allows the student to pursue more advanced and practical applications. Emphasis on hand and power tools, construction methods and materials and their application to cable and wire installations.

VOC EST50 — Electrical Fundamentals for Cable Installations
Electrical fundamentals for cable and wire installations and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST52 — Fabrication Techniques for Cable Installation
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations.

VOC EST54 — Cabling and Wiring Standards
Cable and wire standards of video, voice and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST62 — Electronic Troubleshooting - 1
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby 5.1) and video circuits (analog TV).

VOC EST64 — Electronic Troubleshooting - 2
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

VOC EST70 — C-7 Low Voltage Systems License Preparation
Prepares students for the California State Contractors C-7 Low Voltage Systems license examination.
### Continuing Education

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<tr>
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<tbody>
<tr>
<td>VOC EDT24</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>Advanced engineering CAD for developing detailed working drawings in 3-D environments, incorporating 3-D parametric solid modeling, bill of materials, and surface development. Students who repeat this course will improve proficiency and skill levels.</td>
</tr>
<tr>
<td>VOC EDT26</td>
<td>Civil Engineering Technology and CAD</td>
<td>Theory of civil engineering projects with hands-on instruction in civil drawings and Computer Aided Drafting and Design (CAD) applications. Layout, topography maps, grading plans, sections, street improvements, and interpretation of surveyor’s data are covered. Set of CAD drawings produced for a final portfolio.</td>
</tr>
<tr>
<td>VOC FSH08</td>
<td>Introduction to Fashion</td>
<td>A survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.</td>
</tr>
<tr>
<td>VOC FSH09</td>
<td>History of Costume and Fashion</td>
<td>Development of a basic understanding of industry standard apparel construct techniques using a variety of machines and equipment. Included are marker preparation, commercial patterns, basic block fusing, and garment construction of slim skirt/pants, dress/shirt, and knit “T” shirt.</td>
</tr>
<tr>
<td>VOC FSH10</td>
<td>Clothing Construction 1</td>
<td>Industry-quick alternatives to traditional construction and tailoring techniques, using overlock and single needle machines. Hands-on experience using woven fabrics for tailored clothing and novelty knits.</td>
</tr>
<tr>
<td>VOC FSH11</td>
<td>Clothing Construction 2</td>
<td>The elements and principles of design and their impact on dress will be explored.</td>
</tr>
<tr>
<td>VOC FSH12</td>
<td>Fashion Strategies</td>
<td>An introduction to human anatomy and physiology by systems, with brief descriptions of biochemistry, cell biology and molecular biology. Upon completion, students will understand normal functions and be able to recognize pathologies.</td>
</tr>
<tr>
<td>VOC FSH15</td>
<td>Textiles</td>
<td>Introduction to the fundamentals of a geographic information system(GIS), including history of automated mapping; introduction to cartographic principles; overview of software, such as ArcView; hardware; application of GIS technology in environmental sciences, government, business, terminology, data, and spatial analysis.</td>
</tr>
<tr>
<td>VOC FSH17</td>
<td>Illustration for Fashion and Costume Design</td>
<td>Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric and design detail. Students will explore a variety of mediums.</td>
</tr>
<tr>
<td>VOC FSH21</td>
<td>Patternmaking 1</td>
<td>Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, slopers will be created, constructed and fitted.</td>
</tr>
<tr>
<td>VOC FSH22</td>
<td>Fashion Design By Draping</td>
<td>Three-dimensional design through draping fabrics directly to a dress form to create original designs or to interpret fashion illustrations.</td>
</tr>
<tr>
<td>VOC FSH23</td>
<td>Patternmaking 2</td>
<td>Intermediate pattern drafting and flat patternmaking, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses’ and women’s wear, to include skirts, pants, bodices, sleeves and collars.</td>
</tr>
<tr>
<td>VOC FSH24</td>
<td>Fashion Patternmaking by Computer</td>
<td>Applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns.</td>
</tr>
<tr>
<td>VOC FSH26</td>
<td>Fashion Design and Product Development I</td>
<td>Overview of the global environment for product development for fashion. Applies the concepts and methods by which retailers create special store-branded merchandise for targeted customer segments. Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.</td>
</tr>
<tr>
<td>VOC FSH27</td>
<td>Fashion Design and Product Development 2</td>
<td>Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children’s and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns.</td>
</tr>
<tr>
<td>VOC FSH32</td>
<td>Fashion Design and Product Development 3</td>
<td>Advanced fashion design and product development emphasizing, in portfolio format, a minimum of three lines with production flats, scale patterns, pattern charts, cost sheets and sample garments. A design sketchbook will be maintained. Includes resume preparation and job search appropriate for the fashion design industry.</td>
</tr>
<tr>
<td>VOC GOG10</td>
<td>Introduction to Geographic Information Systems</td>
<td>An introduction to the fundamentals of a geographic information system(GIS), including history of automated mapping; introduction to cartographic principles; overview of software, such as ArcView; hardware; application of GIS technology in environmental sciences, government, business, terminology, data, and spatial analysis.</td>
</tr>
<tr>
<td>VOC HTH01</td>
<td>Certified Nursing Assistant</td>
<td>Preparing the student for the American Heart Association Heartsaver CPR Level A Completion Card, renewable in two years.</td>
</tr>
<tr>
<td>VOC HTH02</td>
<td>Advanced Nursing Assistant</td>
<td>Preparing the student for the American Heart Association Heartsaver CPR Level C Completion Card, renewable in two years.</td>
</tr>
<tr>
<td>VOC CPR01</td>
<td>BLS Heartsaver Course - Adult</td>
<td>This three (3) hour course is designed to teach the life-saving skills of Cardiopulmonary Resuscitation, the first aid techniques for choking emergencies, and how to respond to general life-threatening emergency situations. Students will learn about the risk factors associated with heart attacks and strokes. Successful completion of the course will provide the student with an American Heart Association Heartsaver CPR Level A Completion Card, renewable in two years.</td>
</tr>
<tr>
<td>VOC HTH02</td>
<td>Advanced Nursing Assistant</td>
<td>Preparing the student for the American Heart Association Heartsaver CPR Level C Completion Card, renewable in two years.</td>
</tr>
</tbody>
</table>
VOC HTH04 — Acute Care Nursing Assistant
This course will enhance the existing skills of the CNA and provide the knowledge and job skills to work in various departments of acute care hospitals including med-surgical, obstetrics and pediatrics.
Prerequisites:
• Documentation of completion of CNA Course and successful pass on CNA certification exam
• Current American Heart Association BLS for Health Care Providers card (must be valid for course duration)
• Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months
• Current Live scan fingerprint documentation.
• Valid identification (CA driver’s license or CA ID card) and Social Security card

VOC HTH12 — Medical Terminology
Presents a study of the use and meaning of basic medical terminology.
A programmed learning, word building system will be used to learn word parts that are used to construct or analyze new terms. Emphasis is placed on spelling, definition, usage and pronunciation. Abbreviations will be introduced as related terms are presented. Special emphasis will be placed on actual case diagnoses, treatments and medical interventions.

VOC HTH13 — Interpreting in Health Care 1
Skills necessary for effective language interpretation in health care settings; emphasis on 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 interpretation.

VOC HTH14 — Interpreting in Health Care 2
Further enhancement of interpreting skills learned in VOC HTH13 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.

VOC HTH15 — Externship in Health Care Interpreting
Corequisite: VOC HTH12
Healthcare Interpreting Seminar: facilitating linguistic and cultural communication between client and health care providers.

VOC HTH16 — Geriatric Resource Specialist
Prepares the participant to utilize available resources for older adults on a national and local basis. Identification of older adults’ needs; development of action plans to access appropriate services.

VOC HTH18 — In-Home Care of Alzheimer’s and Dementia Clients
Information and educational activities with techniques to enhance one’s ability to work with Alzheimer’s/Dementia consumers, with an emphasis on effective communication skills and appropriate activities when working with consumers and delivering direct care.

VOC HTH20 — Health Care Interpreter Seminar
Principles, issues, concepts, and skills related to the role of the Health Care Interpreter in facilitating linguistic and cultural communications through the externship field experience.

VOC RDTE — Interventional Therapy for Radiologic Technology
This course prepares the Radiologic Technologist student to perform venipuncture in an upper extremity to administer contrast materials under the general supervision of a licensed physician and surgeon. Principles and techniques of venipuncture will be covered including: anatomy and physiology of sites, instruments, I.V. solutions, equipment, puncture techniques, hazards, complications, emergency care, post puncture care. Procedure practice and safe competency evaluation will be performed on training aids under supervision.

VOC HRM51 — Introduction to Hospitality
Brief review of the historical development of the hospitality industry; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.

VOC HRM52 — Food Safety/Sanitation
Basic principles of sanitation and safety in the food service industry. Emphasis on the role of management in design, implementation and training to establish an effective Hazard Analysis Critical Control point (HACCP) system. Students will have the opportunity to earn the National Restaurant Association’s ServSafe Certificate upon completion of this course.

VOC HRM53 — Dining Room Service Management
Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed.

VOC HRM54 — Commercial Food Preparation
Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; choosing the proper food grade; evaluation of food products and equipment usage.

VOC HRM56 — Management of Hospitality Personnel and Operations
Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Application of basic management concepts and techniques necessary to achieve objectives in the management of operations and human resources in restaurant and hospitality businesses including analysis of hospitality workplace; the manager’s responsibilities in training, coaching and performance appraisal of employees; decision making, leadership and planning.

VOC HRM57 — Restaurant Cost Control
Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

VOC HRM58 — Fast Food Service Management
Basic principles of managing a fast food operation. Comparison with conventional restaurants in pricing, labor needs and facilities. Developing and marketing a positive company image. Practical and legal aspects of franchising versus single ownership. Sanitation and cost controls.

VOC HRM60 — Purchasing for the Restaurant Industry
Basic principles of purchasing for the food service industry. Ordering, receiving, storage, characteristics of products and grade selection for different situations are emphasized. Choosing the best supplier, negotiating the best terms and writing product specifications are covered.

VOC HRM61 — Menu Planning
Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.

VOC HRM62 — Catering
Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to create menus with price. Contracting outside vendors, problem solving and avoiding common problems before they occur.

VOC HRM64 — Hospitality Financial Accounting
Introduction to financial accounting specifically for the hospitality business. Emphasis is on tailoring the Uniform System of Accounting to hotels, restaurants, clubs and other food service operations.

VOC HRM66 — Hospitality Law
Basic principles of contracts, liability and labor as they apply specifically to the hospitality industry. Students will discuss previous cases and decide the fates of fictional litigations as a preventive approach to problems that can occur.

CONTINUING EDUCATION
CONTINUING EDUCATION

**OCCUPATIONAL — MANUFACTURING TECHNOLOGY**

**VOC HRM70 — Introduction to Lodging**
Introduction to the basics of the lodging industry. Acquaints students with front office operations, accounting, guest service, housekeeping and food service. Includes human resource management and property management. Enrollment in Work Experience in Restaurant/Food Service (RSTR 91, 92, 93 or 94) is needed for articulation to California Polytechnic State University.

**VOC ID100 — Fundamentals of Interior Design**
Application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. Selection of all materials and products used in interior environments will be emphasized for the functional aesthetic quality. (Recommend concurrent enrollment in ID 105.)

**VOC MF11 — Mfg Processes 1**
Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF12 — Mfg Processes 2**
The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallurgy, heat treatment, precision grinding, and basic tool design.

**VOC MF15 — AutoCAD 2D**
Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DXF and/or IGES files and then transferred to various CAD/CAM systems.

**VOC MF17 — 3-D CAD for Mechanical Modeling**
Advisory Prerequisite: VOC CIM 15 or equivalent industrial experience. Development of three dimensional mechanical models using AutoCAD. Includes interaction with Computer Aided Machines (CAM) and Computer Integrated Manufacturing (CIM). Analysis and manipulation of mechanical solid models and industrial primitives as related to their interactions with CAM and CIM systems.

**VOC MF19 — Parametric Solid Modeling for Manufacturing**
Development of feature-based solid modeling on a computer using current industry software. Transfer of solid model to a CAM system for CNC code production. Includes production of a manufactured part using CNC mill.

**VOC MF25 — Advanced Parametric Solid Modeling for Desktop**
Advanced instruction in concepts, practice, and development of feature-based solid modeling using Autodesk Mechanical Desktop. Advanced features of solid modeling; global variables, 3-D helical paths generation, surface cut, table-driven parts, and advanced scene and assembly techniques. Students who repeat this course will improve skills by further instruction and practice.

**VOC MF27 — AutoDesk Inventor**
Advanced concepts, practice, and development of feature-based solid modeling using AutoDesk Inventor. Solid modeling parts creation using sketched, placed, and work features. Assembly techniques, working drawings, and the transfer of a solid model to a CAM system.

**VOC MF38 — MasterCAM 1**
Use MasterCAM software to create wire-frame part geometry, add tool paths, and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF38B — Advanced MasterCAM**
Use MasterCAM software to create wire-frame 2D/multi-axis part geometry, add tool paths, and create CNC code for CNC mills and CNC lathes. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF38C — MasterCAM Solids**
Using MasterCAM software to design wire drawings, translate to solids drawings, and generate code from a solids creation to meet industrial standards. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF39 — SurfCAM 1**
SurfCAM software used to create part geometry from project drawings for two-axis milling and turning parts. Tool paths will be added and the completed file will be post-processed and downloaded to CNC machine. Students will be required to set up all cutting tools and machine the part. Students who repeat this course will improve their skills through further instruction and practice.

**VOC MF39B — SurfCAM 2**
Use SurfCAM software to create part geometry for three-axis milling and lathe parts from project drawings and CAD files. Tool paths will be added and the completed file will be post-processed and downloaded to CNC machine. Students will set up the required cutting tools and machine the part. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF58 — Blueprint Reading for Manufacturing**
Blueprint reading as a means of interpreting and visualizing drawings used in manufacturing. Includes the basic print form, title block, notes, materials, machining specifications, application of principles to CNC, welding, and sheet metal. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF70 — Technical Mathematics - Manufacturing Applications**
Applications of mathematical principles in manufacturing. Includes arithmetic calculations, measurement, use of formulas, geometry, and trigonometry. Students who repeat this course will improve skills through further instruction and practice.

**VOC MF85 — Manual CNC/Computerized Numerical Control**
Operations
Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical set-up and operations of CNC equipment. Students who repeat this course will improve skills through further instruction and practice.

**OCCUPATIONAL — PHOTOGRAPHY AND PHOTOGRAPHICS**

**VOC CPDI — Digital Photography for the Beginner**
Operation of digital cameras, image management and composition, development of research skills using the Internet, and imaging graphics software. A hands-on course which includes scheduled field trips.

**VOC GRP01 — Computer Graphics Lab**
Provides computer laboratory experience to supplement the regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

**VOC GRP10 — Photo Editing with Photoshop**
Basic techniques to adjust and modify photos using Photoshop software tools. Includes digital color theory and photo quality standards; practice photoscan reproduction, resolution and scaling, masking, layer editing and effects, filters, color correction and file formats; output for editing, restoring, and retouching.

**VOC GRP12 — Advanced Photoshop**
Advanced training in Photoshop editing, color, exposure, sharpness, contrast enhancement, layer and object masking, vector tools, image compositing and the uses of blended modes; design of realistic and imaginary photo illustrations using 8- and 16-bit high resolution images.

**VOC NF81 — Cooking for Your Heart and Health**
Skills in healthful food preparation emphasizing foods low in fat, cholesterol and sodium, and high in fiber and nutrients.

**VOC NF82 — Vegetarian Cuisine**
Investigates nutritional issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals.

**VOC NF83 — Nutrition**
Includes laboratory experience in preparation of vegetarian foods and meals.

**OCCUPATIONAL — NUTRITION**

**VOC NF81 — Cooking for Your Heart and Health**
Skills in healthful food preparation emphasizing foods low in fat, cholesterol and sodium, and high in fiber and nutrients.

**VOC NF82 — Vegetarian Cuisine**
Investigates nutritional issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals.

**VOC NF83 — Nutrition**
Includes laboratory experience in preparation of vegetarian foods and meals.

**VOC MF58 — Blueprint Reading for Manufacturing**
Blueprint reading as a means of interpreting and visualizing drawings used in manufacturing. Includes the basic print form, title block, notes, materials, machining specifications, application of principles to CNC, welding, and sheet metal. Students who repeat this course will improve skills through further instruction and practice.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC GRP14</td>
<td>Digital Color Management</td>
<td>Advanced techniques of digital color management systems and workflow. System color architectures, monitors, printers, proofers and other devices; spectrophotometer techniques; scripting Photoshop actions, using “digital raw” meta data to organize photo storage; advanced special editing techniques for 16-bit raw color and grayscale images.</td>
</tr>
<tr>
<td>VOC GRP16</td>
<td>Digital Image Design</td>
<td>Basic digital image drawing techniques using Adobe Illustrator or Macromedia Freehand. Includes software tools, applying color, using layers, typography, measurement, and paper systems. Practice importing photo scans, creating layouts, layer animation, choosing fonts, special effects, export file formats, and output in a digital workflow.</td>
</tr>
<tr>
<td>VOC GRP18</td>
<td>Advanced Image Design - 3D Modeling Techniques</td>
<td>Advanced digital image drawing emphasizing creation of photorealistic 3D models and environments. Principles of perspective, coordinate space, photographic lighting, object animation, photo and video texture mapping, and common techniques for rendering still or animated QuickTime image movies for digital compositing and post-production.</td>
</tr>
<tr>
<td>VOC GRP20</td>
<td>Applying Photos and Images in Multimedia</td>
<td>Principles of digital storytelling, combining still photos, graphics images, type, video, and audio content output to digital CD or DVD media, video, or Web pages. Commonly used tools and techniques of Apple’s iPhoto, iMovie, iDVD, iMovie, GarageBand, and QuickTime Pro multimedia software, Mac OS X features, and other multimedia software and hardware.</td>
</tr>
<tr>
<td>VOC GRP28</td>
<td>Digital Portfolio</td>
<td>Preparation of a personal computer graphics portfolio containing key samples of work for presentation or career evaluation. The portfolio displays the learner’s skills mastery, knowledge, and capacities for communicating, synthesis and problem solving.</td>
</tr>
<tr>
<td>VOC GRP48</td>
<td>Introduction to Digital Design Systems</td>
<td>Introduction to digital systems as they relate to computer graphics. CPU type and speed, graphic accelerators, storage media, digital color space, input/output devices, and scanning devices will be emphasized. Software unique to digital design and file management techniques will also be presented.</td>
</tr>
<tr>
<td>VOC PHO01</td>
<td>Laboratory Studies in Black &amp; White Photography</td>
<td>Extended black and white laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments. A continuing education course for those who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>VOC PHO02</td>
<td>Laboratory Studies: Color Photography</td>
<td>Extended color laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments.</td>
</tr>
<tr>
<td>VOC PHO04</td>
<td>Digital Cameras and Composition</td>
<td>Use of digital cameras, lenses, filters, and exposure to compose quality photographs. Shooting assignments are given for analysis in class. Camera will be required after the second week.</td>
</tr>
<tr>
<td>VOC PHO10</td>
<td>Basic Digital &amp; Film Photography</td>
<td>The basic mechanical, optical and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.</td>
</tr>
<tr>
<td>VOC PHO11</td>
<td>Advanced Professional Photography</td>
<td>Exploration of current professional techniques. Includes studio and field assignments related to problems encountered in advanced photography. Topics include but are not limited to: medium and large format cameras, studio product and portraiture, strobe and tungsten lighting, and computer basics for professional photographers.</td>
</tr>
<tr>
<td>VOC PHO12</td>
<td>Photographic Alternatives</td>
<td>Explores the use of continuous tone and alternative black and white techniques and processes. Emphasis will be on solving photographic problems through the use of current techniques such as montage printing, Polaroid and xerographic applications, hand coloring, and emulsion coating (cyanotype, Luminous/LiquidLight) as well as other special techniques.</td>
</tr>
<tr>
<td>VOC PHO15</td>
<td>History of Photography</td>
<td>Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.</td>
</tr>
<tr>
<td>VOC PHO16</td>
<td>Fashion Photography</td>
<td>Illustrative, editorial and advertising fashion photography. Studio and location production in both black and white and color are emphasized. Aspects of business operation and working with clients are explored.</td>
</tr>
<tr>
<td>VOC PHO17</td>
<td>Photocommunication</td>
<td>Explores the application of the photosensitive materials, photochemicals and optics. The emphasis will be on the aesthetic and expressive uses to which these materials lend themselves. The student is expected to supply his/her own adjustable camera.</td>
</tr>
<tr>
<td>VOC PHO18</td>
<td>Portraiture and Wedding Photography</td>
<td>Techniques and photographic procedures for taking informal, formal, environmental and group portraits. In-depth study and practice in professional wedding photography.</td>
</tr>
<tr>
<td>VOC PHO20</td>
<td>Color Photography</td>
<td>An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.</td>
</tr>
<tr>
<td>VOC PHO21</td>
<td>Exploring Color Photography</td>
<td>Explores the application of color processes as they relate to commercial and artistic styles. Emphasis is on innovative use of color and contemporary techniques. Includes manipulation and unique processing, coloring negatives, 8x10 Polaroid, digital imagery, specialized lighting, set building and quality control.</td>
</tr>
<tr>
<td>VOC PHO28</td>
<td>Photography Portfolio Development</td>
<td>Development of photography portfolio either for job application or gallery exhibition purposes.</td>
</tr>
<tr>
<td>VOC SL1</td>
<td>Service Learning/Seminar for Health Occupations</td>
<td>Prepares students with related experiences in health occupations. Examines and profiles community health care needs. Explores and directly allows students to interface with various patient populations. Weekend and overnight labs to various areas within California may be offered. Out-of-class projects required.</td>
</tr>
<tr>
<td>VOC SL3</td>
<td>Service Learning/Seminar in Community Involvement</td>
<td>Examines and profiles community needs through service learning. Explores and allows students to directly interface with community populations. Permits students the opportunity to explore various career options through community service. Enriches personal and career development through understanding of civic and social issues.</td>
</tr>
<tr>
<td>VOC SL4</td>
<td>Service Learning and Community Involvement</td>
<td>Examines and addresses community needs through service learning. Examines and addresses community needs through service learning. Students directly interface with community populations to identify needs and implement activities. Permits exploration of service-oriented career options through community service. Enriches personal and career development through understanding of civic and social issues.</td>
</tr>
<tr>
<td>VOC CISCO</td>
<td>Computer Operations</td>
<td>Training in basic computer skills such as starting a computer, setting up user preferences, mounting disk drives and practicing basic software application programs including word processing, simple spreadsheets and typing programs.</td>
</tr>
<tr>
<td>VOC MAFR</td>
<td>Assembly Repair Skills</td>
<td>Training in assembly operations, machine and maintenance repair; service occupations such as janitorial services, grounds keeping, etc. Develop and practice assembly skills through simulated and real work situations.</td>
</tr>
</tbody>
</table>
Continuing Education

**OCCUPATIONAL — STAINED GLASS PRODUCTION**

**VOC SGD1 — Beginning Stained Glass**
Basic steps of stained glass construction, both lead and copper-foil techniques. A supply list will be handed out at the first class meeting. Students are responsible for their own materials.

**VOC SGD2 — Advanced Stained Glass**
Advanced stained glass techniques will include the construction of windows, lampshades and/or special gifts. Approach to marketing and selling of items will be included. A supply list will be handed out at the first class meeting. Students are responsible for their own materials.

**OCCUPATIONAL — THEATER AND THEATER ARTS**

**VOC THR14 — Stagecraft**
Theory and practice of stage design and lighting. Practical work in scene design and construction and lighting layouts, with the opportunity to perform these tasks in actual theatre situations. By virtue of the wide range of productions staged by the department, students who repeat this course will increase their skills and proficiency.

**VOC THR15 — Play Rehearsal and Performance**
Participation under faculty supervision in the planning, preparation and presentation of college-sponsored dramatic presentations. Emphasis on acting with some technical theatre assignments. Students who repeat this course will improve skills through further instruction and practice.

**VOC THR16 — Theatrical Make-Up**
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of straight, stylized character, and other make-up techniques.

**VOC THR18 — Technical Theater Practicum**
Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting setup, property construction, stage sound setup, costume construction and make-up. Crew assignments will be given to the student upon enrollment. The availability of assignments is contingent upon the requirements of the production. Students who repeat this course will improve skills through further instruction and practice.

**VOC THR19 — Theatrical Costuming**
Theatrical costume design and construction. Includes the study of costume history, principles of costume design, fibers and textiles, basic costume construction and design rendering techniques. Costume crew assignments for major productions will provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television and reenactments.

**VOC THR60 — Children's Theatre**
Theory and practice of children's theatre. Includes analysis of plays for children and actual experience in acting, and producing children's plays for public presentation. Field trips are required.

**OCCUPATIONAL — WELDING**

**VOC WL30 — Metal Sculpture**
For students interested in art seeking the proper operation of welding processes related to the sculpting industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry.

**VOC WL40 — Introduction to Welding**
Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.

**VOC WL50 — Oxyacetylene Welding**
Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.

**VOC WL51 — Basic Electric Arch Welding**
Basic electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (AWS) procedure for certification.

**VOC WL53A — Welding Metallurgy**
Designed for students seeking a career in welding and welding inspection. Covers structure of material, chemical, physical and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation and heat treatment.

**VOC WL60 — Print Reading and Computations for Welders**
Reading prints and performing computations for welding fabrication operations. Interpreting and visualizing prints, title blocks, welding symbols, specifications, notes, and bills of materials. Computations necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions.

**VOC WL70A — Beginning Arc Welding**
Develops manipulative skills and techniques for the beginning student welder on the shield metal arc (SWMAW) and the flux cored arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel.

**VOC WL70B — Intermediate Arc Welding**
A continuation of Beginning Arc Welding (WELD 70A). Emphasis is on welding high alloy steel with both SWMAW and FCAW processes in the vertical and overhead positions. Designed to refine previously acquired welding skills.

**VOC WL70C — Certification for Welders**
Study of building construction for the advanced arc welding student. Special emphasis will be placed on welding symbols and the American Welding Society's (AWS) D1.1 and D1.3.

**VOC WL80 — Fabrication and Construction Welding**
Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components.

**VOC WL81 — Pipe and Tube Welding**
Advanced course designed to enable students with "all positions" welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GMAW, FCAW on a variety of materials and configurations on sub-critical and critical piping and tubing.

**VOC WL90A — Gas Tungsten Arc Welding**
An advanced level class in Gas Tungsten Arc Welding (GTAW, also known as TIG) of steel, aluminum, CRES and exotic metals. All position welds with many surfaces and transitions.

**VOC WL90B — Semiautomatic Arc Welding Process**
An integrated review of Semiautomatic Welding Processes including Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SMAW) with solid and tubular wires with and without gas shielding. All position welds with many varying thickness will be covered.

**VOC WL91 — Automotive Welding, Cutting and Modification**
Instruction in the art of welding and cutting on metals commonly used in the automotive industry. Gas Metal Arc (GMAW), Flux Cored Arc Welding (FCAW), PlasmaArc cutting and oxyfuel cutting and welding will be covered.

**OCCUPATIONAL — WOODWORKING**

**VOC WD01 — Woodworking - Beginning**
Designed for students with little or no woodworking experience. Includes use of hand tools and power woodworking equipment with an emphasis on safety.

**VOC WD02 — Intermediate Woodworking**
Prerequisite: VOC WOOD 01 or equivalent experience. Intermediate woodworking which includes designing, cost analysis, craftsmanship and Occupational opportunities in the field. Elementary joinery, adhesives, simple production techniques, and wood finishes will be covered.

**VOC WD03 — Cabinetmaking/Woodworking**
Students who wish to take this course must have completed a beginning woodworking class. Project proposals are created by students in accordance with their background and interests. Includes recognition of wood varieties, their basic characteristics and applications.
**Colleges Policies and Notices**

**Alcohol and Other Drugs**
The possession or consumption of alcoholic beverages or illegal drugs prior to, or during any College-sponsored activity, on or off-campus, by any person attending, regardless of age, is forbidden by State Law.

The Federal government has mandated that as of October 1, 1990, there will be no drug usage by students, staff, or faculty on college campuses anywhere in the United States. Please see the latest Schedule of Classes for the College's Alcohol and Other Drugs Policy.

**Animals on Campus**
Board Policy does not allow for any animals on campus except as provided for by the California Penal Code, Section 365.5 (specially trained guide, signal, or service dogs). Leaving a pet in a parked vehicle, no matter what provisions are made for its safety, may constitute unnecessary suffering or cruelty which is a violation of California Penal Code 597.

**Campus Disturbances**
In accordance with California Penal Code (P.C. 626.6), the willful disturbance of classes, College activities, or procedures is a misdemeanor.

**Campus Hours**
The College offers instruction between the hours of 6:30 a.m. and 10:00 p.m., Monday through Sunday. Office hours vary depending on the services provided. Refer to the latest Schedule of Classes or call for specific office hours.

**Children on Campus**
While on the campus of Mt. San Antonio College, children under 12 years of age who are not approved for enrollment must be directly supervised at all times by a responsible adult. Such children shall not be left unattended in College buildings, outdoor areas, or in private automobiles.

**Classroom Visitors**
No person may be allowed to attend a regularly scheduled class unless officially registered for that class. Permission to visit a class must be secured from the professor. A visitor shall not attend class on a regular basis. Examples of visitors include: guest speakers, student friends, potential students, or minor children of officially registered students. Unauthorized visitors may be removed from the classroom by request of the Division Dean or designee, or other manager of the Instruction or Student Services Team.

**Dress Regulation**
Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

**Driving and Parking**
Users of Mt. San Antonio College campus roads and parking areas must observe and obey all traffic laws of the State of California and the College traffic and parking regulations adopted pursuant to Section 21113 of the California Vehicle Code and the Mt. San Antonio College Board of Trustees.

All four-wheeled vehicles parked in designated student lots MUST bear a valid parking permit for the semester enrolled. The Student Parking Permit is valid in designated student lots except in the spaces controlled by parking meters or reserved signage. Free 30-minute parking is available north of the Bookstore, west of the Administration Building, and south of the Performing Arts Center. Permit parking regulations are strictly ENFORCED during the Fall, and Spring semesters and summer and winter sessions from 7:00 a.m. to 10:00 p.m. Monday through Thursday, and Friday 7:00 a.m. to 4:00 p.m.

**Eye Protection**
Pursuant to the Education Code, the following regulation regarding eye protective devices shall be observed: Students, teachers, and visitors shall wear approved eye protective devices in all classes, shops, and laboratories when they are engaging in or observing the use of hazardous materials likely to cause injury to the eyes. Such eye protective devices shall meet the requirements of the American Standards Association Safety Code.

**Academic Honesty**
All members of the academic community have a responsibility to ensure that scholastic honesty is maintained. Faculty has the responsibility of planning and supervising all academic work in order to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered.

Honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reason, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed for by the professor.

**Cheating and Plagiarism**
Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

Cheating
Professors have the responsibility of planning and supervising all academic work to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered. However, honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reasons, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed by the professor. The term "cheating" includes but is not limited to:

- Plagiarism
- Receiving or knowingly supplying unauthorized information
- Using unauthorized materials or sources
- Changing an answer after work has been graded and presenting it as improperly graded
- Illegally accessing confidential information through a computer
- Taking an examination for another student or having another student take an examination for you
- Forgery or altering registration or grade documents

The professor who determines that a student has cheated may give the student a failing grade for the assignment or for the course, or may drop the student from the course. Since the student has failed to abide by the standards of academic honesty, the professor has a right to give an "F" for the assignment or the course even though the student may have successfully and, presumably, honestly passed the remaining portion of the assignment or course. If the professor issues a failing grade for the course or drops the student, the actions shall be reported to the Dean of Student Services, or Director of Student Life. An instructor may also recommend that appropriate action be taken under provisions of the Administrative Regulations and Procedures on Student Discipline.

Plagiarism
"Plagiarism is a direct violation of intellectual and academic honesty. Although it exists in many forms, all plagiarism refers to the same act: representing somebody else's words or ideas as one's own. The most extreme forms of plagiarism are the use of material authored by another person or obtained from a commercial source, or the use of passages copied word for word without acknowledgment. Paraphrasing an author's idea or quoting even limited portions of his or her text without proper citation is also an act of plagiarism. Even putting someone else's ideas into one's own words without acknowledgment may be plagiarism. In none of its forms can plagiarism be tolerated in an academic community. It may constitute grounds for a failing grade, probation, suspension, or expulsion."

"One distinctive mark of an educated person is the ability to use language correctly and effectively to express ideas. Faculty assign written work for the purpose of helping students achieve that mark. Each instructor will outline specific criteria, but all expect students to present work that represents the student's understanding of the subject in the student's own words. It is seldom expected that student papers will be based entirely or even primarily on original ideas or original research."

"Therefore, to incorporate the concepts of others may be appropriate with proper acknowledgment of sources, and to quote others directly by means of quotation marks and acknowledgments, is proper. However, if a paper consists entirely of quotations and citations, the paper should be rewritten to show the student's own
understanding and expressive ability. The purpose of the written assignment (i.e., development of communication and analytic skills) should be kept in mind as each paper is prepared. It should not be evaded through plagiarism.**

**Adopted, with permission of California State University, Los Angeles, from their policy printed in the 1987-88 General Catalog.

**Non-Discrimination Policy**

Mt. San Antonio College provides opportunities for the pursuit of excellence for all students and staff through its educational programs and services. The purpose of all programs, services, activities, conferences and college-endorsed competitions is to enrich the quality of human life. The College will provide open access to a college education and all support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. The lack of English language skills will not be a barrier to admission. Policies and grievance procedures for unlawful discrimination and complaint procedures for sexual harassment for students and employees may be obtained by contacting the following individuals:

- **Trinda Hoxie, Director**
  Human Resources/Affirmative Action Officer
  Human Resources Office
  Building 4, Room 230, Ext. 4225

- **Audrey Yamagata-Noji, Vice President**
  Student Services
  Student Services Center, Ext. 4505

- **Carolyn Keys, Dean of Student Services**
  Building 9C, Room 1A, Ext. 4525

**Sexual Harassment & Sexual Violence**

Sexual violence, including sexual assault, harassment, rape and stalking, are crimes that are not tolerated on this campus. Mt. San Antonio College has adopted Board policies and procedures to address sexual crimes, sanctions for offenders, and to outline access to treatment and general information for victims (Board Policy 3430, 3500, 3540). All applicable punishment, including criminal charges, disciplinary action, etc., shall be applied whether the violator is an employee, student or member of the general public.

Services available to help assure your safety include:

- **Campus Escorts** who are available during evening hours to assure your safety on campus and in parking lots. They are provided at your request, please call ext. 4233.

- **Contact Student Life Office** at ext. 4525 to report incidents.

- **Student Health Services** provides personal counseling and medical attention.

- **Blue emergency telephone** towers that are located throughout the campus and parking lots for you to access Public Safety immediately should you need assistance with any emergency occurrence.

- **Public Safety** can be reached by calling the campus number at (909) 594-5611, ext. 4555.

- **911** for any emergency. Be prepared to identify your exact location.

For additional information, go to www.mtsac.edu/students

**Standards of Conduct**

Board Policy, Section 5500

Adopted 6/23/04

Copies of the Standard of Conduct Policy can be obtained in Building 9C.

The College President/CEO shall establish procedures for the imposition of discipline on students in accordance with the requirements for due process of the federal and State law and regulations.

The procedures shall clearly define the conduct that is subject to discipline, and shall identify potential disciplinary actions, including but not limited to the removal, suspension, or expulsion of a student.

The Board shall consider any recommendation from the College President/CEO for expulsion. The Board shall consider an expulsion recommendation in closed session unless the student requests that the matter be considered in a public meeting. Final action by the Board on the expulsion shall be taken at a public meeting.

The procedures shall be made widely available to students through the College catalog and other means.

The following conduct shall constitute good cause for discipline, including but not limited to the removal, suspension or expulsion of a student:

1. Causing, attempting to cause, or threatening to cause physical injury to another person.
2. Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permission to possess the item from a College employee, which is concurred with by the College President/CEO.
3. Unlawful possession, sale, use, offer to sell, or furnishing, or being under the influence of any controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the California Health and Safety Code, an alcoholic beverage, or an intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in California Health and Safety Code Section 11014.5.
4. Committing or attempting to commit robbery or extortion.
5. Causing or attempting to cause damage to College property or to private property on campus.
6. Stealing or attempting to steal College property or private property on campus, or knowingly receiving stolen College property or private property on campus.
7. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the College.
8. Committing sexual harassment as defined by law or by College policies and procedures.
9. Engaging in harassing or discriminatory behavior based on national origin, religion, age, sex (gender), race, color, medical condition, ancestry, sexual orientation, marital status, physical or mental disability, or because a person is perceived to have one or more of the foregoing characteristics.
10. Willful misconduct that results in injury or death to a student or to College personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the College or on campus.
11. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, College personnel.
12. Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty.
13. Dishonesty, forgery, alteration or misuse of College documents, records or identification; or knowingly furnishing false information to the College.
14. Unauthorized entry upon or use of College facilities.
15. Levied, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.
16. Engaging in expression which is obscene, lewd, lascivious or lewdly or lasciviously communicative; or which so incites students as to create a clear and present danger of unlawful acts on College premises, or the violation of lawful College administrative procedures, or the substantial disruption of the orderly operation of the College.
17. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
18. Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any College policy or Administrative Procedure.
19. Harassment of students and/or College employees that creates an intimidating, hostile, or offensive environment.
College Policies and Notices

20. Violation of College rules and regulations including those concerning affiliate clubs and organizations, the use of College facilities, the posting and distribution of written materials, and College safety procedures.

Student Complaints/Grievance Process

Students are protected against capricious, arbitrary, unreasonable, unlawful, false, malicious or professionally inappropriate evaluations or behavior by a faculty member.

Student complaints may be classified as grievances and fall into three categories: Academic, Non-Academic and Discrimination Complaints. Academic grievances involve grades. To grieve a grade, a student must prove that the professor issued a grade by mistake, fraud, bad faith, or incompetence (Education Code 76224). Non-Academic grievances include: illegal discrimination, sexual harassment, financial aid, violation of College policies, any violation of Title IX or Section 504 related to students with disabilities.

Grievances must be filed no later than 30 school days (Monday - Friday when classes are in session) after the beginning of the primary term following the alleged violation, or 30 school days from the time that the student learns of the basis for the grievance. To begin the formal grievance process, students may pick up grievance procedures and forms from the Student Life Office, Building 9C. It is recommended that students meet with the Student Life Director regarding the grievance prior to starting the process since timelines are established for every step of the process and must be met precisely.

The process for filing and pursuing a grievance includes two levels: in Level I (informal level) the student picks up the grievance forms and official procedures from Student Life and attempts to resolve the problem by meeting first with the faculty member (or staff member/administrator for non-academic grievances) and then to the faculty member’s department chair or immediate supervisor. If the complaint is not resolved at that level, the student will meet with the division dean of the division of the faculty defendant in an effort to resolve the problem. In the event that the problem cannot be resolved within 10 school days, the student may proceed to Level II (formal grievance) in which the student after completing the forms takes all signed forms and documents to the Student Life Office within the established deadlines.

A Grievance Review Committee chaired by the Dean of Student Services will review the grievance documents. This Committee may forward the grievance for a hearing that provides for a formal hearing process to seek clarification from the parties involved. If the student or faculty/staff member chooses to appeal the decision of the Committee, the appeal is submitted to the College President. The final appeal process resides with the Board of Trustees; their decision concludes the grievance process.

Smoking on Campus

Student, employee, and visitor health is a primary concern of Mt. San Antonio College. Because of the clear evidence of the harmful nature of smoke inhalation and because of the general concern over air contamination, Mt. San Antonio College in accordance with California State law, bans smoking within all campus buildings and in any outdoor area within twenty feet of any exterior exit or entrance to such a building. This includes all College-leased and College occupied buildings. Further, smoking is banned in the swimming pool area, Hilermore Stadium, and in all college vehicles.

Academic Adjustments for Students with Disabilities

Under federal and State laws, the College is required to make modifications to academic requirements and practices as necessary in order to ensure that they do not discriminate against a qualified student with a disability. The College is also required to have a policy and procedure for responding to students with verified disabilities who request academic adjustments. Students with disabilities have the right to receive reasonable academic adjustments in order to create an educational environment where they have equal access to instruction without fundamentally altering any course, educational program or degree. Copies of the Policy and Procedures for Providing Academic Adjustments for Students With Disabilities are available in Disabled Student Programs & Services, ext. 4290.

Reserve Officer Training Corps (ROTC)

Students interested in pursuing a military career can participate in an approved Reserve Officer Training Corps program offered through local universities. Programs include the Air Force ROTC Program offered through the University of Southern California (USC) and Harvey Mudd College. Other university ROTC programs include the Army ROTC programs at Cal Poly Pomona, USC and Cal State Long Beach. These programs are open to community college students pursuing an undergraduate degree, prior to transfer. Competitive one- to four-year scholarships are available to qualified applicants. Additionally, students may be eligible to receive money to cover books and other costs. Students interested in participating in an ROTC program are advised to contact the ROTC program at the participating university.

NOTICES

Equal Opportunity Statement

The Board of Trustees of Mt. San Antonio College has a commitment to establishing and maintaining a policy of equal educational and employment opportunities and prohibiting discrimination based on sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. This commitment applies to educational programs, activities, service, and employment practices.

Notice of Students’ Rights

Students at Mt. San Antonio College are notified annually of their rights under the act within this section of the Catalog. More detailed information on student rights is available from the Dean, Enrollment Management, including: 1) type of information and material contained within the student’s educational record; 2) the official responsible for the maintenance of each type of record; 3) the procedure for student review and inspection of the educational record; 4) the procedure for challenging the contents of the educational record; 5) the charges to the student for reproducing copies of the record if requested; 6) the categories of information which the College has designated as Directory Information and to whom this information will be released unless the student objects; and 7) the rights of a student to file a complaint with the United States Department of Education concerning alleged failure of the College to comply with the provisions of the Act.

Federal Review Board

Students may file a complaint with the United States Department of Education, Room 5660, Independence Avenue, S.S., Washington, D.C. 20201, regarding alleged institutional violations of the Act.

Open Enrollment

All classes are open to all students who meet the course prerequisites and enrollment requirements, unless specifically exempted by statute. The College provides open access to all program offerings, opportunities, and support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV and AIDS), sexual orientation, or Vietnam Era Veteran Status.

Public Safety

In compliance with the Clery Act, the College publishes an annual security report which contains information regarding campus crime statistics. This information may also be found on the website at www.mtsac.edu by clicking on Public Safety. Copies of the annual report can be obtained from the Public Safety Department, Building 4, Room 105. A Public Safety crime log is published bi-monthly in the student newspaper and brochures on Emergency Procedures are posted throughout the campus.

During the 2003-2005 calendar years, criminal offenses occurring on campus were reported to campus security authorities and local police agencies. Please see the Public Safety Department Statistical Crime Report listed in the box on the next page.

Emergency Procedures

Students and staff should report serious crimes and emergencies, i.e., fire/medical, occurring on campus to the Public Safety Department or call 911. When using an on-campus extension, call 9-911. Incidents may be reported to Public Safety by calling (909) 594-5611, ext. 4555,
PUBLIC SAFETY DEPARTMENT STATISTICAL CRIME REPORT

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Yearly Totals 135 174 147

24 hours a day. During normal business hours, Public Safety may be contacted at Building 4, Room 105, or by calling ext. 4230. The Public Safety Department is located at the southeast portion of the campus off Bonita Drive in Building 48. Public telephone locations on campus have at least one phone that is equipped with a red emergency button that is a direct line to the Mt. SAC Public Safety Office during and after business hours. In the event of an emergency, students and staff are requested to make a prompt and accurate report to the Public Safety Department.

Enforcement
The Mt. San Antonio College Public Safety Department has the authority to enforce the Student Discipline Code of Conduct under the Education and Penal Codes of the State of California; and is the liaison with local police and sheriffs departments in cases of criminal actions.

Mt. San Antonio College District incident reports are not official police reports. If an official police report is required, the Los Angeles County Sheriffs Department in Walnut is the appropriate agency to contact.

Crime Prevention
The Public Safety Department's primary responsibility is the safety and security of all members of the College community. Every effort is made to inform students and staff of criminal activity or any other concern that may be an immediate threat to the safety and security of those on campus. Information and workshops on crime prevention are made available to College students and staff. It is the responsibility of every member of the campus community to act in ways that promote the safety of self, others, and the protection of District property.

Campus Emergency Phone System
Mt. San Antonio College has installed a campus wide emergency phone system. This system is divided into two primary segments. The inner campus system consists of emergency phones that are placed on the outside of selected campus buildings and are identified by the familiar blue light affixed to the top of the phone housing. The second segment of emergency phones consists of stand-alone emergency phone towers, located in open campus spaces, primarily in campus parking lots. These phone towers are identified by a blue light affixed to the top of the tower.

Use of any of these emergency phones will connect the user to Campus Security during normal business hours, located in Building 4. During hours when the campus is closed, the Emergency phones will connect the user directly to a cell phone carried by Campus Security Officers who are on duty 24 hours a day, 7 days a week.

Student Rights and Privacy Act

Access to Educational Records
All former and present students have the right to review and inspect their educational records in the Office of Admissions and Records provided they make a written request fifteen (15) days in advance. Such a review will be under the direct supervision of a classified or certificated employee in the Admissions and Records Office. Expressly exempted from the right of review and inspection are the following materials:
1. Financial records of the parents of the student(s).
2. Confidential letters and statements of recommendation maintained by the College on or before January 1, 1975, provided that such letters or statements are not used for purposes other than those for which they were specifically intended.
3. Records of instructional, supervisory, counseling, and administrative personnel which are in the sole possession of such personnel and are not accessible or revealed to any other person except a substitute.
4. Records of employees of Mt. San Antonio College, made and maintained in the normal course of business which relate exclusively to such person in that person’s capacity as an employee, are not available for use for any other purpose.
5. Records of students made and maintained by the Student Health Services, the College nurse, the College physician, and the College therapist, which are used in the treatment of students and are not available to anyone other than persons providing such treatment. However, such a record may be personally reviewed by a physician or other appropriate professional of the student’s choice.

Release of Educational Records Information
1. Any release of a student’s educational records, with the exception listed below, must be made with the student’s written consent.
2. The College may release copies of or otherwise divulge material in the student’s educational records only to the official agencies, groups, officials, or individuals specifically mentioned below:
   a. College staff members; provided that such employees have a legitimate educational interest to inspect such a record.
   b. Representatives of the Comptroller General of the United States, the Secretary of Education, and administrative head of an educational agency, state education officials, and the United States Office of Civil Rights, where such information is necessary to audit a program.
   c. Accrediting organizations in order to carry out their accrediting functions.
   d. Organizations conducting studies on behalf of the institution.
   e. Officials of other schools or school systems in which the student seeks or intends to enroll subject to the rights of students.
   f. Agencies or organizations in connection with a student’s application for financial aid.
   g. Organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, and administering predictive tests, administering student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students or their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is compiled.
   h. Appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health and safety of the student or other persons.
   i. Courts or other agencies in compliance with a subpoena or judicial order. A reasonable effort will be made to notify the student in advance of the compliance by the College.
3. Directory Information:
   a. “Directory Information” means a student’s name, community of residence, 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 public or private school attended by the student.
b. Any student desiring to withhold "Directory Information" may file a written request with the Dean, Enrollment Management, within fifteen (15) days of the opening day of each semester or session that the student does not want such information released.

c. The College reserves the right to limit or deny the release of specific categories of directory information based upon a determination of the best interests of the student(s).

The 1996 Solomon Amendment

The 1996 Solomon Amendment is federal law that compels institutions that receive federal funding to provide (upon request) directory information, plus address, phone number, age and class level to military personnel so that these personnel can recruit students.

Transfer of Information to Third Parties

Educational records or personal information transferred to other institutions or agencies will not be transferred to a third party without the written consent of the student.

Student Right-to-Know Rates

Completion Rate: 28.39%
Transfer Rate: 22.63%

From 2004 COHORT Data

In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of the Mt. San Antonio Community College District and Mt. San Antonio College to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 2004, a cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students were tracked over a three-year period. These rates do not represent the success rates of the entire student population at Mt. San Antonio College, nor do they account for student outcomes occurring after this three-year tracking period.

Based upon the cohort defined above, 28.39 percent attained a certificate or degree or became ‘transfer-prepared’ during a three-year period, from Fall 2004 to Spring 2007. Students who are ‘transfer-prepared’ have completed 56 transferable units with a GPA of 2.0 or better.

Based on the cohort defined above, 22.63 percent transferred to another postsecondary institution, (UC, CSU, or another California Community College) prior to attaining a degree, certificate, or becoming ‘transfer-prepared’ during a five semester period, from Spring 1998 to Spring 2007.
Section 13
Faculty and Academic Administrators
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Enke, Gary D. (1990)
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Garcwall, Jennifer (2006)
Agricultural Sciences
B.S., California State Polytechnic University, Pomona

Gau, Jim (2000)
Computer Information Systems
B.E., Chong Choa University
M.B.A., California Lutheran University

Goff, Michael (1998)
Physical Education
A.A., Bakersfield College
B.A., M.A., Whittier College

Golestaneh, Kamran (2008)
Chemistry
B.S., B.S., M.S., California State Polytechnic University, Pomona

Gonzales, Barbara (2002)
Learning Assistance
A.A., Mt. San Antonio College
B.A., M.Ed., University of La Verne

Gonzalez, Gail (1999)
Mental Health Technology
B.S.N., Montana State University

Graham, Chris Giles (1991)
Mathematics, Computer Science
B.A., Pomona College

Greco, Victoria (1999)
Disabled Student Programs & Services
B.A., California State University, Fullerton
M.A., California State University, San Bernardino

Mathematics, Computer Science
B.A., University of California, Berkeley
M.S., California State University, Los Angeles

Psychology, Education
B.A., M.A., California State University, Fullerton

Guth, Scott A. (1990)
Mathematics, Computer Science
A.A., San Bernardino Valley College
B.S., M.S., California Polytechnic State University, San Luis Obispo

Hagner, Dirk (2007)
Fine Arts
M.A., University of Essen, Duisburg, Germany

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Halabi, Solene (2008)  
Foreign Languages  
M.A., California State University, Fullerton

Hall, Martha (2007)  
Learning Assistance  
B.A., University of California, Riverside  
M.A., Claremont Graduate University

Hall, Sushma S. (1990)  
Sociology, Philosophy  
B.A., M.A., University of Hawaii

Hanson, Grace (1996)  
Director, Disabled Student Programs & Services  
B.A., M.A., California State University, Long Beach  
Transition Services for Individual with Disabilities Certificate

English, Literature & Journalism  
B.A., M.A., University of Southern California

Hartman, Laurie (2007)  
Commercial and Entertainment Arts  
B.F.A., Rochester Institute of Technology

Hatch, Rebecca (2001)  
Sociology, Philosophy  
B.A., California Lutheran University  
M.S., Ph.D., University of Southern California

Heard, Lance (2008)  
Public Services  
B.S., United States Military Academy, West Point  
M.S., University of Cincinnati

Heneise, John W. (1985)  
Dean, Business  
A.S., Long Beach City College  
B.A., California State University, Long Beach  
M.Ed., California State Polytechnic University, Pomona

Henkins, Kathryn (1987)  
English, Literature & Journalism  
B.A., University of Redlands  
M.A., California State University, Los Angeles  
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Ph.D., Claremont Graduate School

Henry, Anthony (2007)  
Child Development  
B.A., Humboldt State University  
M.A., California State University, Los Angeles  
M.A., Azusa Pacific University

Hernandez, Alina (1988)  
Counseling  
A.A., Santa Ana Community College  
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Counseling  
B.A., M.A., California State University, San Bernardino

Hernandez, Cristina M. (1997)  
History, Art History, Geography, Political Science  
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Herrera, Irene (2000)  
Director, EOPS  
B.S., California State University, Fullerton  
M.S., California State University, Los Angeles

Hight, Lynette C. (1971)  
English, Literature & Journalism  
B.A., M.A., California State University, Los Angeles

Hill-Enriquez, Evelyn (1991)  
American Language  
A.A., Mt. San Antonio College  
B.A., M.A., California State University, Fullerton  
TESOL Certificate

Hischar, Paul (1998)  
Accounting & Management  
B.S., California State Polytechnic University, Pomona  
M.B.A., West Coast University

Ho, Robert I. (1984)  
Architecture & Engineering Design Technology  
B.S., Cheng Kung University  
M.Arch., University of Minnesota  
NCARB, National Council of Architectural Registration Boards  
California Licensed Architect

Hoffman, Harlan (2005)  
History, Art History, Geography, Political Science  
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Ph.D., University of California, Riverside

Hoffman, Ruth Jean (1997)  
Agricultural Sciences  
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Hoggan, Lynda Smith (1996)  
Biological Sciences  
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M.P.H., University of California, Los Angeles

Hoover, Karellyn (1995)  
Chemistry  
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English, Literature & Journalism  
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Hosea, Phoebe (2007)  
Mathematics, Computer Science  
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Howell, Luisa (2002)  
Foreign Languages  
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Chemistry  
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Huang, Shui-lien (1989)  
Computer Information Systems  
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Huang, Shui-lien (1989)  
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Hughes-Lederer, Julie (1980)  
Interim Director, RHORC  
A.D.N., Rio Hondo College  
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Hughes, Douglas (1999)  
Child Development  
A.A., San Diego City College  
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Electronics & Computer Technology  
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Impara, Carol (2005)  
Consumer & Design Technologies  
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Jackson, Christopher (2005)  
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Accounting & Management  
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Jeffers, Bonnie H. (1997)  
Office Technology  
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The Faculty

Reille, Audrey (2006)
  Director, Center of Excellence
  M.B.A., California State University, San Bernardino
  Ed.D., University of Southern California

Reinhart, Liesel (1997)
  Communication
  B.S., University of Colorado
  M.P.S., Cornell University

Revel, Timothy (1999)
  Biological Sciences
  A.A., Ventura College
  B.A., University of California, Santa Cruz
  M.S., California State University, Fullerton
  Ph.D., University of Missouri

Reyes, Mary-Ellen (1998)
  Mental Health Technology
  A.A., Chaffey College

Richardson, Lanny (1995)
  Air Conditioning & Welding

Rickard, Malcolm (2008)
  Physics and Engineering
  B.A., M.S., San Francisco University
  Ph.D., University of Colorado

  Sociology, Philosophy
  A.A., Pasadena City College
  B.A., M.A., Ph.D., University of Southern California

Ritz, Karol E. (1997)
  Dance
  B.A., University of California, Irvine
  M.A., California State University, Fullerton

Rivas, Hector (2007)
  Commercial and Entertainment Arts
  B.A., California Polytechnic University, Pomona
  M.B.A., Keller Graduate School of Management

Rivas, Tony M. (2005)
  Counseling, EOP&S/CARE
  A.A., Santa Ana College
  B.A., San Jose State University
  M.S., California State University, Long Beach

Robinson, Carolyn (2006)
  Learning Assistance
  B.S., California State Polytechnic, Pomona
  M.Ed., University of Southern California

Rogers, Bruce (1994)
  Music
  B.S., University of Connecticut
  M.A., Claremont Graduate University

Rogus, Linda (2005)
  Aeronautics and Transportation
  A.A. Certificates; Flight Instructor, Airplanes & Instruments, Airline Transport Pilot
  A.S., Mt. San Antonio College
  B.S., California State University, Los Angeles

Rogus, Robert (2001)
  Aeronautics and Transportation
  A.S., Mt. San Antonio College
  B.S., California State University, Los Angeles
  A.A. Certificates: Flight Instructor, Airplanes & Instruments; Commercial Pilot

Romero, Oscar (2007)
  Nursing
  A.A., Mt. San Antonio College
  R.N., Los Angeles County - University of Southern California School of Nursing
  M.A., California State University, Fullerton/University of California, Irvine

Rubenstein, Susie (2005)
  Fine Arts
  B.A., University of California, Santa Cruz
  B.F.A., Kansas City Art Institute
  M.F.A., Cranbrook Academy

Rudd, Terry Shaylor (1988)
  Mental Health Technology
  A.S., East Los Angeles College
  B.S., California State University, Fullerton
  M.S., California State University, Los Angeles

Ruh, Marc T. (1997)
  Physical Education
  A.A., Mt. San Antonio College
  B.A., University of California, Santa Barbara
  M.A., Azusa Pacific University

Runnebohm, Stephen (1987)
  Dean, Humanities & Social Sciences
  B.S., M.A., Ball State University
  Ph.D., University of Missouri

Russell, Paul (1988)
  Learning Assistance
  B.S., California State Polytechnic University, Pomona
  M.Ed., California Lutheran College

Sakugawa, Jamie (2008)
  Agricultural Sciences
  B.A., California State Polytechnic University, San Luis Obispo

Sampat, Michelle (2007)
  Learning Assistance
  B.A., Pomona College
  M.A., Claremont Graduate School
  J.D., Whittier Law School

Sanchez, Andrew (2001)
  Mental Health Technology
  A.S., R.N., Mt. San Antonio College

Sanchez, Hector (2006)
  Counseling, EOP&S/CARE
  A.A., Glendale Community College
  B.A., University of California, Los Angeles
  M.S., University of La Verne

Sanchez, Lisbet (2008)
  Foreign Languages
  B.A., B.A., California State University, Los Angeles
  M.A., New Mexico State University

Sanchez, Juan (2005)
  Physical Education
  B.S., California State University, Los Angeles
  M.Ed., University of La Verne

Sardinas, Ignacio (2008)
  Architecture and Engineering Design Technology
  B.A., California State Polytechnic University, Pomona

  Mathematics, Computer Science
  B.S., Harvey Mudd College
  M.S., California State Polytechnic University, Pomona

Schmidt, David (2002)
  Electronics & Computer Technology
  A.A., Mt. San Antonio College
  B.V.Ed., M.A.Ed., California State University, San Bernardino

Schmidt, Sherry (1985)
  Biological Sciences
  B.A., University of Montana
  M.A., California State University, Fullerton

Schnurbusch, Karen (2002)
  Physics & Engineering
  B.S., University of California, Santa Barbara
  M.S., University of Illinois, Urbana-Champaign

Sciore, Donald (1999)
  Commercial and Entertainment Arts
  B.F.A., California State University, Fullerton

Scott, Brian (2001)
  Agricultural Sciences
  A.A., M.S., Mt. San Antonio College
  B.S., California State Polytechnic University, Pomona

Scott, Sarah (2007)
  Biological Sciences
  B.S., University of Massachusetts, Amherst
  M.S., University of Connecticut, Storrs
Shannon, Cynthia (1991)  
Biological Sciences  
A.A., Fullerton College  
B.A., California State University, Fullerton  
B.S., M.S., California State Polytechnic University, Pomona

Public Services  
B.A., College of Santa Fe  
M.S.W., California State University, San Bernardino  
Certified Substance Abuse Counselor, UCLA

Shepherd, John C. (1981)  
Air Conditioning, Welding, & Water Technologies  
A.A., Chaffey College  
Community College Instructor Credential  
C.C. Supervisory Credential

Sholars, Joan (1991)  
Mathematics, Computer Science  
B.A., M.A., California State University, Fullerton

Shull, Stephen (2006)  
Fire Technology  
B.S., Southern Illinois University  
M.S., California State University, Long Beach

Silva, Lawrence (2005)  
Learning Assistance  
B.A., California State Polytechnic University, Pomona  
M.A., Chapman University

Sloan, Sayedeh Omideh (2008)  
Assistant Director, Adult Basic Education  
B.A., George Washington University  
M.A., Ph.D., University of California, Santa Barbara

Smith, Bailey K. (2009)  
Director, Learning Assistance Center  
B.A., University of California, Santa Cruz  
M.A., University of Wisconsin - Milwaukee

Smith, Daniel E. (1998)  
Commercial and Entertainment Arts  
B.A., California State University, Fullerton

Smith, James B. (1998)  
Counseling  
B.A., M.A., California State University, Fullerton

Smith, John K. (2001)  
Public Services  
B.A., M.S.W., Indiana University  
Ph.D., International University for Graduate Studies

Soares, Darrow (1992)  
Air Conditioning, Welding, & Water Technologies  
A.A., Riverside City College  
B.A., University of California, Riverside  
M.A., California State University, San Bernardino

Sonier, Greta (2008)  
Business Administration  
B.A., University of La Verne  
M.A., California State Polytechnic University, Pomona  
J.D., University of La Verne College of Law

Soto, Lina (2001)  
Counseling  
B.A., University of California, San Diego  
M.A., San Diego State University

Sparks-Mackey, Maxine (1990)  
History, Art History, Geography, Political Science  
B.A., University of Redlands  
M.P.A., University of Southern California  
Ph.D., Claremont Graduate School

Spaulding, Ralph A. (1970)  
History, Art History, Geography, Political Science  
B.A., University of Santa Clara  
M.A., Claremont Graduate School

Steph-Bolling, Eric (1977)  
Learning Assistance  
B.A., University of California, Santa Barbara  
M.A., State University of New York at Fredonia  
M.S., California State University, Fullerton

Stewart-Thomas, Michelle (2007)  
Sociology, Philosophy  
M.S., Purdue University  
M.S., M.A., Fuller Theological Seminary  
Ph.D., University of Southern California, Los Angeles

Stokes, Nona (1990)  
American Language  
B.S., Howard University  
M.S., Ph.D., Georgetown University

Stone, James (2008)  
History, Art History, Geography, & Political Science  
B.A., University of Kentucky  
M.A., Ph.D., Chapman University

Theater  
B.S., Eastern Michigan University  
M.F.A., University of Iowa

Strope, Byron (1990)  
Aircraft Maintenance & Manufacturing  
A.S., Chaffey College  
B.S., California State Polytechnic University, Pomona  
F.A.A. Certificates, Airframe and Powerplant, Inspection Authorization  
F.A.A. Safety Counselor  
F.A.A. Designated Mechanic Examiner

Stuard, Bob (1986)  
Sign Language  
A.A., San Diego Mesa College  
B.A., University of California, San Diego  
M.B.A., California State University, Dominguez Hills

Sullivan, Michael P. (1991)  
English, Literature & Journalism  
B.A., Hamilton College  
M.S., State University of New York  
Ph.D., University of Rhode Island

Summer, Melody (2006)  
Mathematics, Computer Science  
B.S., M.S., California State Polytechnic University, Pomona

Sun, Christine (2001)  
Mathematics, Computer Science  
B.S., National Taiwan University  
M.A., Ph.D., University of South Carolina

Swartz, Pauline (2006)  
Librarian  
B.A., University of California, Santa Cruz  
MLIS, University of California, Los Angeles

Swift, Crystal Lane (2008)  
Communication  
B.A., California Baptist University  
M.A., Ball State University  
Ph.D., Louisiana State University

Takashima, Timothy (2000)  
Mathematics, Computer Science  
B.S., M.S., California State University, Long Beach

Tamayo, Santiago (Jimmy) (2002)  
Mathematics, Computer Science  
B.S., California State Polytechnic University, Pomona  
M.S., University of California, Riverside

Tatoian, Vahe (1990)  
Physics, Engineering  
B.S., Yerevan University, Armenia  
M.S., Drexel University

Tellez, April (2008)  
History, Art History, Geography & Political Science  
B.A., M.A., University of California, Riverside

Terreri, Joseph P. (1989)  
Mathematics, Computer Science  
B.S., M.S., California State Polytechnic University, Pomona

Teske, Margaret (2002)  
Manager, ESL Instructional Support  
B.S., University of Northern Colorado  
M.S., Colorado State University

Thomas, Antoine (2006)  
Counseling  
B.A., University of California, Riverside  
M.S., California State University, Long Beach

Thomas, James D. (1998)  
English, Literature & Journalism  
B.A., Westmont College  
M.A., Ph.D., Claremont Graduate University
The Faculty

Todd, Douglas (1995)
Physical Education
A.A., El Camino College
B.A., California State University, Long Beach
M.A., California State University, Dominguez Hills

Ton, Chan-Phuong (2005)
Counseling
B.A., University of California, San Diego

Tran, Frank (2002)
Mathematics, Computer Science
B.S., University of California, Davis
M.A., University of California, Santa Barbara

Trejo, Lysette (2009)
B.A., California State University, Fullerton
M.S., University of La Verne

Tripp, Robin R. (1985)
English, Literature & Journalism
B.A., M.A., California State University, Chico

Truxill, Tammy (1999)
Commercial and Entertainment Arts
A.A., Long Beach City College
B.A., California State University, Fullerton

Trull, Stephen Tyler (2001)
History, Art History, Geography, Political Science
A.A., Mt. San Antonio College
B.A., California State University, Fullerton
M.A., University of California, Santa Barbara

Truettmann, Janet (2002)
Chemistry
B.A., University of California, San Diego
Ph.D., California Institute of Technology

Tunstall, Christine M. (1990)
Disabled Student Programs & Services
B.A., M.S., University of Michigan
M.S., Capella University

U
Uranga, Jaime (2007)
Electronics & Computer Technology
A.A., Mt. San Antonio College

Uyeki, Elizabeth Chisato (2007)
Librarian
B.A., Earlham College
M.L.I.S., University of California, Los Angeles

Uyeno, Gary (1999)
Registered Veterinary Technology
B.S., University of California, Davis
D.V.M., Iowa State University

V
Vail, Deidre Tucker (1991)
Biological Sciences
B.S., California State Polytechnic University, Pomona
M.S., University of California, Irvine

Vela, Thomas (1991)
Architecture & Engineering Design Technology
A.A., Cerritos College
B.A., California State University, Long Beach
M.A., College of St. Thomas

Visosky, Thomas (1980)
Agricultural Sciences
A.S., Mt. San Antonio College
B.S., M.S., California State Polytechnic University, San Luis Obispo
Ph.D., Michigan State University

Vitullo, John (2002)
Communication
B.A., Southern Utah University
M.A., Ball State University

Vo, Tuan A. (2000)
Mathematics, Computer Science
A.A., San Bernardino Valley College
B.S., M.S., California State Polytechnic University, Pomona

W
Wakefield, Jeffrey W. (2000)
Mathematics, Computer Science
B.S., University of California, Los Angeles
M.S., California State University, Long Beach

Walker, Christopher N. (1980)
Disabled Student Programs & Services
B.A., California Lutheran College
M.A., California State University, Northridge
Ph.D., University of Iowa

Walker, Lori (2000)
Learning Assistance
B.S., University of California, Riverside
M.A., Ph.D., Claremont Graduate University

Walker, Rebecca (2006)
Earth Sciences, Astronomy
B.A., Hamilton College
M.S., University of Arizona

Ward, Elizabeth (1999)
Physical Education
B.A., California State University, Long Beach
M.A., California State Polytechnic University, Pomona

Watanabe, Kathleen (1996)
Child Development
B.S., California State University, Los Angeles

Watanabe, Larry (1992)
Physical Education
B.S., California State University, Fullerton
M.A., Azusa Pacific College

Waters, Dawn (2008)
Agricultural Sciences
B.S., California State Polytechnic University, Pomona
M.Ed., University of La Verne

Weatherilt, Sandra (2001)
Consumer Science & Design Technologies
B.A., M.A., California State University, Long Beach

Earth Sciences, Astronomy
B.A., B.S., Syracuse University, New York
M.S., Duke University

Whalen, Margaret E. (1989)
English, Literature & Journalism
B.S., Jacksonville University
M.A., University of Maine at Orono

Wiesner, Mary Rose (2002)
Respiratory Therapy
B.S., Northeastern University

Wilcher, Lance (2005)
Nursing
M.S.N., F.N.P., University of Southern California

Wilkerson, Jill K. (2001)
Disabled Student Programs & Services
B.A., University of South Dakota
M.S., Arizona State University

Music
B.A., Tulsa University
M.A., Pittsburgh State University

Williams, Bruce (1988)
English, Literature & Journalism
B.A., University of California, Los Angeles
M.A., Ph.D., Claremont Graduate School

Williams, Deborah (1992)
Mathematics, Computer Science
B.S., California State Polytechnic University, Pomona
M.A., California State University, Fullerton

Williams Tyler, Jody (2002)
Chemistry
B.S., University of Evansville
M.S., Ph.D., University of California, Irvine

Williamson, Kisha (2007)
Child Development
B.A., California State University, Long Beach
M.S., University of La Verne

Wilson, Keith (2000)
Commercial and Entertainment Arts
B.A., Lone Mountain College
M.A., Stanford University

Wilson, Randall (1988)
Counseling
B.A., B.S., California State University, Fullerton
M.A., University of California, Los Angeles
The Faculty

Wolde-Yohannes, Samuel (2001)
Sociology, Philosophy
B.A., M.A., Ph.D., Pontifical Gregorian University, Rome, Italy

Wolf, Phillip (1995)
Physics & Engineering
B.S., Harvey Mudd College
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...the Future is Now!

The images displayed on the covers of this Catalog highlight the eclectic mix of historic, traditional and contemporary architecture as well as the horticultural gems that one sees on Mt. SAC’s sprawling 420-acre campus. Not only is Mt. SAC one of California’s largest college campuses, it is fast becoming an aesthetic treasure.

Nested below the San Jose Hills with Mt. San Antonio (Mt. Baldy) looming above, the campus is undergoing a major transformation with new and renovated facilities, tasteful landscaping, high-tech laboratories, and “greener” operating systems, thanks to construction bonds passed by local voters.

This comprehensive campus improvement effort speaks to Mt. SAC’s commitment to build for the future by providing an inviting state-of-the-art environment that fosters innovative instruction and learning.