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) 506-0234.

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 2011-12 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) 274-7500
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(Hearing Impaired)

www.mtsac.edu

Our 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.
A Legacy of Excellence

In the spirit of Mt. San Antonio College’s 65th anniversary, we celebrate our legacy of excellence with the release of this 2011-12 College Catalog. It is a compilation of courses, programs, support services, degree offerings, and transfer information that you will need to chart your course to academic success. All of this represents our unwavering commitment—despite difficult economic times—to provide you the finest education, period.

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 resource guide to explore the vast scope of opportunities, services, and programs that Mt. SAC offers.

You will find a rich array of university transfer, career, and lifelong learning programs that can empower you with the knowledge and skills needed to succeed in a diverse and interconnected world. Be assured that our curriculum is in step with the fast-changing needs of today’s dynamic employment sectors.

As we celebrate yet another milestone anniversary, Mt. SAC remains committed to its longstanding mantra: “students first and foremost.” Your success is our paramount focus. And we invite you to take advantage of the college’s vast array of resources to achieve it.

To the many freshmen who will enter Mt. SAC this fall, and to all current students, we welcome you with open arms and wish you much success as you now become a part of our “Legacy of Excellence.”

Dr. William Scroggins
President & CEO

Board of Trustees
Judy Chen Haggerty, Esq., President
Rosanne M. Bader, Vice President
Dr. Manuel Baca, Clerk
Fred Chyr, Member
Dr. David K. Hell, Member
Bruno Hernandez, Student Trustee
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<td>July 4</td>
<td>Independence Day Holiday (campus closed)</td>
</tr>
<tr>
<td>July 5</td>
<td>International student admission application due for 2011 Fall Semester</td>
</tr>
<tr>
<td>July 19</td>
<td>Registration begins for 2011 Fall Credit and Continuing Education classes</td>
</tr>
<tr>
<td>August 28</td>
<td>Residency determination date</td>
</tr>
<tr>
<td>August 29</td>
<td>Fall Semester begins</td>
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<tr>
<td>September 5</td>
<td>Labor Day (campus closed)</td>
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<tr>
<td>September 9</td>
<td>Last day to change residency for 2011 Fall Semester</td>
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<tr>
<td>September 9</td>
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</tr>
<tr>
<td>September 16</td>
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<td>December 12-18</td>
<td>Final Exams</td>
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<td>Winter Recess for students</td>
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<tr>
<td>December 19-January 6</td>
<td>Winter Recess for students</td>
</tr>
</tbody>
</table>
2011-12 College Calendar

Winter 2012

January 1, 2011  New Year's Holiday (campus closed)
January 9  2012 Winter Intersession begins
January 16  Martin Luther King, Jr. Day (campus closed)

February 17  Lincoln's Birthday (campus closed)
February 19  2012 Winter Intersession ends
February 20  President's Day (campus closed)

Spring 2012

February 27  2012 Spring Semester begins

March 30  Cesar Chavez Day of Observance (campus closed)
### 2011-12 College Calendar

#### Spring 2012 (continued)
- **May 28**: Memorial Day (campus closed)
- **June 11 - 17**: Final Exams (see schedule in Spring Schedule of Classes)
- **June 15**: Commencement
- **June 17**: 2012 Spring Semester ends

#### Summer 2012
- **June 25**: 2012 Summer Intersession begins
- **July 4**: Independence Day (campus closed)
- **August 5**: 2012 Summer Intersession ends
<table>
<thead>
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<th>College Directory</th>
</tr>
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<tbody>
<tr>
<td><strong>The main College telephone number is (909) 594-5611.</strong></td>
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<td>For direct access to the offices listed below, dial (909) 274 + the 4-digit extension listed below.</td>
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<tr>
<td>Payroll</td>
<td>4248</td>
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<tr>
<td>Performing Arts Center Box Office</td>
<td>(909) 468-4505; 2050</td>
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* Instructional programs and departments
section one

The College
The 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 Business Division's educational departments and their program areas are:

- Arts degrees, and over eighty certificates.
- Entertainment Arts, Music, and Theater.

The division also includes the services of the Child Development Center. For additional information, contact the Center of Excellence at ext. 6106.

The economic and workforce development grant is for the Center of Excellence. For additional information, contact the Center of Excellence at ext. 6106.

The division also offers a variety of learning support labs such as the Language Learning Center, the Health Careers Resource Center, and the WIN program for student athletes. Fee-based programs include offerings for career training, personal enrichment, vehicle safety, and youth. The division also provides workplace training on a contract basis throughout the district.

For more information about our programs and services, contact the division office at (909) 274-4600.

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 offer courses and provide support services for all students at the College.

The Library offers students, faculty, and staff a wide variety of information resources for their research needs. Beyond traditional resources such as books, journalism, newspapers, videos, and career guides, researchers may also search numerous full-text databases and pre-evaluated Internet web sites. The library faculty teach library research techniques to classes by appointment and one-on-one at the reference desk at all the hours the library is open.
**INSTRUCTIONAL DIVISIONS**

### Library and Learning Resources Division (Cont.)

**Learning Assistance Center (LAC)**

The LAC Department offers courses in pre-collegiate writing and mathematics, as well as both collegiate and degree-appropriate courses in reading, and study techniques. Tutor training courses are offered for prospective tutors. Non-credit students can get individualized materials and instruction in reading comprehension, vocabulary, spelling, elementary math, algebra review, English grammar, and study techniques (note-taking, test preparation, and test-taking). Additionally, the LAC provides academic support through tutoring, an instructional computer lab, and testing services.

**Distance Learning Program**

Distance Learning (DL) courses (online and hybrid) are offered each term in various departments. The DL courses have the same course content, academic rigor, and registration process as regular courses. Some faculty may require on-campus meetings. Students are encouraged to check the schedule of classes each term for offerings and to visit [http://www.mtsac.edu/instruction/learning/distlearn/](http://www.mtsac.edu/instruction/learning/distlearn/)

**Natural Sciences Division**

Larry L. Redinger, Dean
Matthew Judd, 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 Science 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.

### INSTRUCTIONAL DIVISIONS

### Physical Education Division

**Physical Education Division**

**Joseph Jennum**, Dean/Athletic Director
**Debbie Cavion**, Interim Associate Dean

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. The renowned Dance Program at Mt. SAC is enhanced by the award-winning faculty and studios/performance venues in the College's Performing Arts Center.

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 20 team 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. The renowned Dance Program at Mt. SAC is enhanced by award-winning faculty and studios/performance venues in the College's Performing Arts Center.

Mt. SAC's five renowned 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**

**Dr. Sarah Daum**, Dean
**Jemma Blake-Duck, 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 Technology, Electronics Technology, Manufacturing Technology, 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 (EMT and Paramedic), Mental Health, Physicians' Assistant Preparatory, Radiologic Technology, Respiratory Therapy, and Registered Nursing. Programs are driven by industry needs, and many are governed by state accrediting boards.
section two

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 application for admission using one of the following methods:

1. The application for admission of credit classes can be submitted 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. Students wishing to change their residency must submit a Residency Reclassification form to the Admissions & Records Office prior to the deadline listed in the Schedule of Classes.

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 “nonresident.”

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. Nonresident: A “nonresident” student 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, by 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 that 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 last 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 own 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 a 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 http://mtsac.edu/students/counseling/special_admit.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. For more information, contact the Continuing Education Division at (909) 274-4220.

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. 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. Students will need to request an evaluation upon submission of their graduation petition. 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 prior to their registration appointment.

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 deny acceptance of any course for the purpose of General Education, Associate Degree graduation requirements, or subject requirements. If denied, the student may petition for an in-depth evaluation at Admissions and Records.

To determine "subject" requirements for an established vocational program, the course must be evaluated by a representative from the respective academic department in which the major resides. If the course is determined acceptable as a substitution for a required course in the program, the department representative will complete a "variance" form verifying this acceptance and complete the paperwork at Admissions and Records.

Acceptance of International Coursework from Accredited Colleges and Universities outside the United States
Mt. San Antonio College may accept for equivalence, general education and courses that meet other local graduation requirements, that have been successfully completed at institutions of higher education outside the United States from international college and universities where the primary language of instruction is other than English, provided substantial documentation exists for the equivalences to be determined. The exceptions to this are courses to meet Area A: Communications in the English language and the Reading Competency requirement. These requirements must be fulfilled at a regionally accredited institution of higher education within the United States.

Students completing coursework at international higher education institutions in which English was the language of instruction may submit a petition for special review to the Admission and Records office to determine the equivalence of coursework in Area A and the Reading Competency. Mathematics course credit will only be granted for coursework completed at the level of Intermediate Algebra or higher.

Official Transcripts must be accompanied by evaluation documents provided an approved credential evaluation agency.

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 is 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 is 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 is 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 Tech Prep 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 is 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. 11A, at (909) 594-5611, 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
- Qualifying score from one of the following College approved tests:
  1) TOEFL (minimum score of 133 on the computer-based test, or 450 on the paper-based test, or a score of 45 on the Internet-based test). Information regarding TOEFL may be obtained at www.toefl.org. If you are mailing your score directly, our institution code is "4494".
  2) IELTS (overall band score of 4.5 or higher). Information regarding IELTS may be obtained at www.ielts.org.
  3) Mt. SAC’s AWE (Assessment of Written English) - Placement in AMLA 41W or higher. Information regarding the AWE may be obtained at www.mtsac.edu/students/assessment.
Matriculation

- 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 2011-12 school year are as follows:
- Summer 2011 — First Monday of April
- Fall 2011 — First Monday of June
- Winter 2012 — First Monday of November
- Spring 2012 — First Monday of December

F-1 Visa students can obtain all application materials from our College Website at www.mtsac.edu. From The Mt. Sac home page, click on “Apply or Register,” click on “Forms and Publications,” then click on “Application for International Students.” TOEFL scores, IELTS 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.

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 schedule/receipt. If the student 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 courses, 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 to the College (e.g., returned check, unpaid enrollment fees, unpaid loan, equipment breakage, unpaid library fine, etc.). The hold shall be released when the student satisfactorily meets the financial obligation. There is a processing fee of $25 for returned checks or stop payment of checks.

Students having disciplinary holds with the Student Life Office will not be allowed to transact College business until the hold is satisfied.

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. Students will be given a topic to write on and the writing sample will be read by at least two faculty members. Based on the faculty evaluation of the student’s writing skills, they are placed in one of the following categories:

A. Eligible for English classes. Based on assessment results, students will be eligible for either ENGL 1A, 68, 67, or LERN 81.

B. Eligible for AMLA writing courses (designed for students who are not fluent in the English language). Students may enroll in AMLA writing courses and continue enrolling in AMLA writing courses until they are eligible for ENGL 67 or ENGL 68.

C. Eligible for ESL (English as Second Language) classes. Students may enroll in ESL adult education courses each semester until eligible for AMLA classes; then enroll in AMLA courses each semester until they are eligible for ENGL 67 or ENGL 68.

Students in any of the categories listed above may enroll in other courses for which they are eligible. Students with limited English skills are not prohibited from enrolling in vocational courses.

Math Placement

The College utilizes a selection of assessment instruments to place students into math courses. Students take one of the math placement exams commensurate with their most recent, successful completion of Pre-Algebra, Algebra, Intermediate Algebra and Pre-Calculus.

Reading Placement

The College utilizes the Degrees of Reading Power (DRP) and COMPASS/ESL reading tests to assess student reading skills. Based on the results of the reading test, the student will be advised to take an appropriate reading course.

Chemistry Placement

The College utilizes the California Chemistry Diagnostic Test to determine student readiness for Chemistry 50. Students who pass the chemistry placement test will not be required to take chemistry prior to enrolling in Chemistry 50.
Re-test Policy
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.

Placement Test and Eligibility Time Limits
Placement test scores are valid for two years from the date the test was taken. Eligibility based on test placement is not valid after the two-year expiration period. Eligibility based on previous coursework does not expire.

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.

Exemption from Orientation and Counseling/Advisement
Orientation is required for all new students who are enrolling in Mt. San Antonio College. 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 Center 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 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/Advisement
Students are exempt from Orientation and Counseling/Advisement if they:

1. have completed 60 units or more from an accredited institution;
2. possess an Associate or higher degree from an accredited institution;
3. attain 60 units or more from an accredited institution;
4. possess an Associate or higher degree from an accredited institution;
5. meet 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.

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, students 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.
section three

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 may 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 officially drop a class 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 or at an earlier date for intersession or short-term classes.

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.

#### 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 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 the college, or are dropped by the professor after the course has met for 30 percent of the its total minutes (end of the fourth week for sixteen-week courses) 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 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.

#### Repeatability

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.

#### Limitations on Repeating Courses

Beginning with the Fall 2009 semester, students who have recorded a substandard grade of either “D,” “F,” “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 without a mark of “W” are allowed during the first 3 weeks of a 16-week class in a semester or within the first 20 percent of a short-term course. Students shall be allowed a maximum of three withdrawals for a given course where a mark of “W” is posted for all three 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 highest grade and credit earned (if any) shall be disregard in computing the student’s grade point average each time the course is repeated.

Participation in an intervention program may be required.

#### Petitions for Exceptional Action

Student Petitions for Exceptional Action forms are available from the Counseling Office, Student Life, and Admissions and Records Office in the Student Services Center. 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.

#### 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
- A student may use that initial catalog year or any subsequent catalog until the student's petition for graduation, if the student has remained in continuous attendance.
- Continuous attendance is enrollment and attendance in a class (past the census date) in one of the immediate prior two semesters.
- In order to maintain catalog rights at Mt. SAC, based on the initial semester of enrollment, a student may:
  1. Attend another regionally accredited post-secondary institution.
  2. Maintain “continuous attendance” at a regionally accredited post-secondary institution while away from Mt. SAC.
  3. Not be absent from Mt. SAC for four or more regular terms (two years).

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 week is required for each unit of credit. In summer sessions, one unit of credit represents three hours of lecture per week.

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 record.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
<th>Grade Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing (less than satisfactory)</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0</td>
</tr>
<tr>
<td>Pass</td>
<td>Passing (at least equivalent to a “C” grade. Units awarded are not counted in determining the student’s grade point average).</td>
<td></td>
</tr>
<tr>
<td>NP</td>
<td>Not Passing (Equivalent to a “D” or “F” grade. No units awarded, and units are not counted in determining grade point average. No-Credit grades will be considered in probation and dismissal procedures.)</td>
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</tbody>
</table>

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 become a letter grade assigned by the instructor.

IP — In Progress: The “IP” symbol shall be used to denote that the class extends beyond the normal end of an academic term. It indicates that work is “in progress,” but that assignment of a substantive grade must await its completion. The “IP” symbol shall remain on the student’s permanent record in order to satisfy enrollment documentation. The appropriate evaluative grade and unit credit shall be assigned and appear on the student’s record for the term in which the course is completed.

Grading Scale

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Final Examinations
A final examination shall be administered in all classes in compliance with the Final Exam Schedule prepared each term. 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.
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 (P = A, B, or C; NP = D, F). A few courses 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 can make the changes on their student portal or in person with a picture ID at the Admissions and Records Office in the Student Services Center. 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 or President’s List, but such courses are considered in progress 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 55805 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:

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.”

### COLLEGE CREDIT FOR ADVANCED PLACEMENT (AP) TESTS

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE Breadth Units</th>
<th>CSU Units</th>
<th>IGETC Units</th>
<th>UC Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3 semester (Area C1 or C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3A or 3B)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>(Studio) 7</td>
<td>N/A</td>
<td>3 semester</td>
<td>N/A</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Biology</td>
<td>4 semester (Area B2 and B3)</td>
<td>6 semester</td>
<td>4 semester (Area 5B with lab)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Calculus AB (4, 5)</td>
<td>3 semester (Area B4)</td>
<td>3 semester</td>
<td>3 semester (Area 2A)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Calculus BC (4, 5)</td>
<td>3 semester (Area B4)</td>
<td>6 semester</td>
<td>3 semester (Area 2A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Chemistry</td>
<td>4 semester (Area B1 and B3)</td>
<td>6 semester</td>
<td>4 semester (Area 5A with lab)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Computer Science A (4, 8)</td>
<td>N/A</td>
<td>3 semester</td>
<td>N/A</td>
<td>2 quarter / 1.3 semester</td>
</tr>
<tr>
<td>Computer Science AB (4, 8)</td>
<td>N/A</td>
<td>6 semester</td>
<td>N/A</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Economics — Microeconomics</td>
<td>3 semester (Area D2)</td>
<td>3 semester</td>
<td>3 semester (Area 4B)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Economics — Macroeconomics</td>
<td>3 semester (Area D2)</td>
<td>6 semester</td>
<td>3 semester (Area 4B)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>English — Language &amp; Composition</td>
<td>3 semester (Area A2)</td>
<td>6 semester</td>
<td>3 semester (Area 1A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>English — Literature &amp; Composition</td>
<td>6 semester (Area A2 and C2)</td>
<td>6 semester</td>
<td>3 semester (Area 1A or 3B)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Environmental Science (5)</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>3 semester (Area 5A with lab)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>French Language (4)</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>French Literature (4)</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>German Language (4)</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Government &amp; Politics — Comparative</td>
<td>3 semester (Area D8)</td>
<td>3 semester</td>
<td>3 semester (Area 4F)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>History — European</td>
<td>3 semester (Area C2 or D6)</td>
<td>6 semester</td>
<td>3 semester (Area 3B or 4F)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>History — U.S. (2, 5)</td>
<td>3 semester (Area C2 or D6 and US 1)</td>
<td>6 semester</td>
<td>3 semester (Area 3B or 4F)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>History — World</td>
<td>3 semester (Area C2 or D6)</td>
<td>6 semester</td>
<td>3 semester (Area 3B or 4F)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3 semester (Area D5)</td>
<td>3 semester</td>
<td>3 semester (Area 4E)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Japanese Language &amp; Culture</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Latin — Vergil</td>
<td>3 semester (Area C2)</td>
<td>3 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Latin — Literature (5)</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Music Theory (9, 10)</td>
<td>3 semester (Area C1)</td>
<td>6 semester</td>
<td>N/A</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Physics B (4, 5)</td>
<td>4 semester (Area B1 and B3)</td>
<td>6 semester</td>
<td>4 semester (Area 5A with lab)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Physics C — Mechanics (5)</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>3 semester (Area 5A with lab)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Physics C — Magnetics (5)</td>
<td>4 semester (Area B1 and B3)</td>
<td>4 semester</td>
<td>3 semester (Area 5A with lab)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Psychology</td>
<td>3 semester (Area D9)</td>
<td>3 semester</td>
<td>3 semester (Area 4F)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Spanish Language (5)</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Spanish Literature (5)</td>
<td>3 semester (Area C2)</td>
<td>6 semester</td>
<td>3 semester (Area 3B and 6A)</td>
<td>8 quarter / 5.3 semester</td>
</tr>
<tr>
<td>Statistics</td>
<td>3 semester (Area B4)</td>
<td>3 semester (Area 2)</td>
<td>4 quarter / 2.7 semester</td>
<td></td>
</tr>
</tbody>
</table>

1. If a student receives more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate.
2. Students who pass AP Chemistry earn 6 units of credit. Tests prior to Fall 2009 may apply 4 units to area B1 or B3 of GE Breadth. Tests after Fall of 2009 may apply 6 units to area B1 or B3.
3. Students who pass AP Environmental Science earn 6 units of credit. Tests prior to Fall 2009 may apply 6 units to area B1 or B3 of GE Breadth. All of 09 or later, those credits may only apply to B1 or B3.
4. Students who pass AP French Language, German Language, Spanish Language, and Spanish Literature earn 6 units of credit. Tests prior to Fall 2009 may apply 4 units to area C2 of GE Breadth. Tests after Fall 2009 may apply 6 units to area C2.
5. Students seeking certification in GE Breadth prior to transfer must have passed the test before Fall 2009.
6. Students seeking certification in GE Breadth prior to transfer must have passed the test before Fall 2010.
7. If a student takes more than one AP exam in physics, only six units of credit may be applied to the baccalaureate, and only four units of credit may be applied to a certification in GE Breadth. Students who pass AP Physics B earn 6 units of credit. Tests prior to Fall 2009 may apply 6 units to area B1 or B3 of GE Breadth. Tests after Fall 2009 may apply 4 units to area B1 or B3.
8. All UC Campuses, a maximum of 8 quarter units are allowed in each of the following areas: Art (Studio), English, Mathematics, Music and Physics. A maximum of 4 quarter units are allowed in Computer Science.
9. Students who take the Calculus BC examination and earn a subscore of 1 or higher on the BC examination
10. The UC will grant credit for the full Music Theory exam. Students who earn only a subscore will not receive exam credit.
### 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>Classical Languages</td>
<td>5 semester units toward Area B1</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>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 A1</td>
</tr>
</tbody>
</table>

3. A student may petition for Credit by Examination provided:
   a. The student has not already received credit for a course (except for Advanced Placement Course Credit).
   b. The student has at least a 2.0 grade point average. This includes transfer/new students.
   c. The student has at least a 2.0 grade point average.

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

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### 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 on page 13 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 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 similar 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.
Credit for Current License Holders
Mt. San Antonio College may grant units of credit toward an associate's degree to current license holders in the following areas: Emergency Medical Technology (Paramedics), Psychiatric Technology, and Radiologic Technology. The total number of units granted will be equal to the current total unit requirement for the equivalent program certificate. License holders must meet the college's residency requirements and complete an application to the college before the request for extra-institutional learning credits may be made. The application date will determine the catalog year.

The Department Chair from the appropriate program will validate the license and its currency. Admissions and Records will certify that the requirements have been met, grant the appropriate number of units, and apply extra-institutional learning credit toward the degree.

Credit for Military Training
Mt. San Antonio College will grant four units of Baccalaureate level elective credit 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.

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 at Mt. San Antonio College.

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

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, Pitzer 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 SAT2 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 "Honor 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 Honors Program Director at Ext. 4528.

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:

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

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 Advisor. 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.
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 (GPA) 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 summer session, 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. Probation
   a. Academic Probation - 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 Probation - occurs at the end of that first semester in which the student has attempted at least 12 units and 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. Continued Probation
   a. Continued Academic Probation - occurs when the student in their second consecutive semester continues to have a cumulative grade point average below 2.0, or
   b. Continued Progress Probation - occurs when the student in their second consecutive semester 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 shall 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 by the stated deadline prior to the beginning of the following semester. 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

If, after dismissal, a student returns and completes 24 units with a cumulative grade point average of 2.0 or higher, the student may be reinstated. The 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. Upon reinstatement, the 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. If approved, the reinstated student shall remain on probation 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.

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).

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 NP.
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 should consult with a counselor to file a 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. Unofficial/student copies of transcripts may be obtained at http://my.mtsac.edu.
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, at 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 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-20’s 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.

4. The Admissions and Records Office also provides computers located in the Student Services Building. These computers provide access to the student portal where students can print their unofficial transcripts, final grades, and copies of the Permit to Register. All services are also available at my.mtsac.edu. To use this service, students must have their Mt. SAC Student username.

The ASPIRE Program, Ext. 6396

The ASPIRE Program is an academic student success program designed to enhance success among African-Americans and other students enrolled at Mt. San Antonio College. The program strives to achieve equity among African-American and other students in academic success, access, retention, degree completion, and transfer.

The program aims to:
- develop a sense of community among African-American students, other students, faculty, staff and administrators;
- demonstrate culturally relevant connections between African-American students and the college;
- assist students in achieving academic success through progress monitoring, study groups, tutoring, counseling and advisement; and
- promote awareness of student services, and leadership opportunities.

The ASPIRE Learning Community classes provide a combination of English, reading and/or counseling courses for students seeking a unique learning experience and provides a strong sense of community.

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 and Reading 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. Student fees may be paid via the web at my.mtsac.edu or in person at the Bursar’s Office, Building 9A. 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 get from Mt. SAC to the next step in their educational journey whether that is a great career or a great four-year university. We provide a variety of services, activities, events and resources to help students transfer to universities, solidify their career goals, sharpen their job acquisition skills, and acquire part- and full-time employment.

Career Services include:

- Job and internship referrals
- Career fairs
- Career acquisition skills workshops
- Mock interview sessions
- 1-on-1 assistance with resume preparation, interviewing techniques, and general job search

Transfer Services include:

- Career and college guidebooks and university catalogs library
- Workshops on transfer topics
- University representative visits and appointments
- College fairs
- University tours
- Walk-in transfer advising
- Computers for career and transfer research, applications and more!

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) 274-4380.
Disabled Student Programs & Services (DSP&S), Student Services Center, Ext. 4290

The DSP&S office provides services to students who have professionally documented disabilities or medical conditions, and need special services to successfully attend classes at Mt. SAC. Students who suspect they might have a disability are welcome to apply for services and an eligibility determination will be made.

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 student must demonstrate the ability to benefit from higher education; and self-management skills (mobility, eating and using restrooms without assistance) must be adequate, unless a personal care attendant is utilized. The College does not provide personal care attendants.

Participation in DSP&S and all student disability-related information is confidential. Services offered are based on disability-related needs. Some of the services DSP&S offers are:
- Access to a computer lab with adaptive hardware and software
- Sign language interpreters
- Notetakers in the classroom
- Trap service on campus
- Priority registration
- Classroom testing accommodations
- Equipment loan
- Specialized counseling and advising
- Academic and career strategies classes
- Print material in alternate formats (i.e. Braille, e-text)

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 “handicapped parking,” any metered space (at no cost), or any time limited space (without having to observe the time limit specified). Students must ensure that the placard or license plate is displayed properly.

DSP&S highly recommends that students visit our Department to determine if there are services that may be of assistance to them while attending Mt. San Antonio College. We invite and encourage all students to visit Disabled Student Programs and Services, located on the lower level of the Student Services Center.

CalWORKs (California Work Opportunities and Responsibility to Kids)

The CalWORKs Programs at Mt. SAC was designed to provide educational support for single or married parents who are recipients of Temporary Assistance to Needy Families (TANF) benefits. In order to receive services students must receive TANF benefits for themselves. The CalWORKs Office assists students in meeting their Welfare to Work 32/35 hour participation requirements while achieving their personal and educational goals. A variety of support services are provided to facilitate students’ achievement of their AA degree or a professional certificate.

Support services include:
- Education planning
- Counseling
- Case management
- Tutoring
- Personal development workshops
- Job development/placement assistance
- Advocacy
- Liaison between student and GAIN Services Workers and Eligibility Worker at County Office
- Payment for required books and supplies
- Work-study*
- Childcare*

*Based upon adequate funding

For more information, visit the CARE website:

www.mtsac.edu/students/calworks

CARE (Cooperative Agencies Resources for Education), Ext. 4392

CARE (Cooperative Agencies Resources for Education) is a support program for EOPS students who are single head of household parents receiving TANF benefits — 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
- 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.

Extended Opportunity Programs and Services (EOPS), Student Services Center, Ext. 4500

Extended Opportunity Programs and Services (EOPS), located on the lower level of the Student Services Center, provides access to higher education for students with academic and financial disadvantages. 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:
- Be a California resident
- Be enrolled as a full-time student (12 units or more)
- Have fewer than 70 degree applicable units
- Qualify to receive a Board of Governors Enrollment Fee Waiver under Method A or B
- Be educationally disadvantaged

Financial Aid

Student Services Center, Ext. 4450

Financial aid is available for students to assist with the costs associated with attending college. Although the primary responsibility for meeting college costs rests with the student and his or her family, it is recognized that many families have limited resources and are unable to meet the cost of a college education. Most financial aid programs were established to provide assistance for students with documented financial need.

The College provides 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 financial aid programs offered.

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.gov. For any questions or further information, contact the Financial Aid Office, ext. 4450.
STUDENT SERVICES AND STUDENT LIFE

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) or other types of documents needed to verify or resolve conflicting data.

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. 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 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. Only the enrollment fee is waived, and the student is responsible for paying the additional fees assessed. 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.

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.

Re-Entry Services
Student Services Center, Ext. 4392
(See Extended Opportunity Programs and Services – EOPS)

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.

Escort Location Map
Campus escort locations are indicated on the map below with a white X.

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.

Veterans Services Center
Student Services Center, Ext. 4520
The Veterans Services Center, located on the upper level of the Student Services Center, provides 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 all applicable regulations that pertain 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. All transcripts must be evaluated prior to the start of the students third semester, per the Veterans Administration. Also, a complete and signed educational plan must be submitted to the Veterans Service Center in order to receive benefits. Students should visit the Counseling Center for assistance in completing their educational plan. For step-by-step instructions in claiming and utilizing educational benefits at Mt. SAC, Veterans and eligible dependents should download the “Veterans Packet” and all required forms at www.mtsac.edu/students/veterans/.

Satisfactory progress of Veterans or eligible dependents is measured by the successful completion of the number of units enrolled. “W’s,” “NC,” 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 the Veterans Services 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 Services Center.

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 for 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 postings, 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 creates an environment for students to socialize and connect with other students as well as serves as a meeting place for events, activities, clubs and student government. The Student Center is also the place to find information about off-campus housing.

Associated Students (A.S.) Student 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 eight 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 also opportunities for students to 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 A.S. sponsored events and initiatives which support student clubs, programs, projects, and services throughout the year. The SacBookRac sells A.S. discount amusement park and movie tickets.

A.S. Student Activities Fee

The Student Activities Fee is an $11 fee that is collected every Fall and Spring Semester to provide you with various programs and services on campus. Including book grants, scholarships, cultural programs, speakers, social Activities, and discounted amusement park and movie tickets. This fee is optional and refunds will NOT be issued after the second weeks of the semester. Waiving this fee will exclude you from taking advantage of the benefits listed above. Applications for waivers are available on your Student Portal under Financial Services or in the Student Life Office (Bldg. 9C) for the first two weeks of the semester.

Campus Clubs and Organizations

Building 9C, Ext. 4525

There are many opportunities for students to join a variety of more than 50 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) consists 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 five

Instruction and Learning Resources
INSTRUCTION

Distance Learning Program
What is Distance Learning?
It means taking classes that are conducted partially or entirely off-campus, “at a distance.” Students and professors communicate with each other using a variety of technologies.

Distance Learning (DL) courses have the same content and academic rigor as regular courses; the only difference is the delivery method. Students should expect to spend as much time, sometimes more depending on the subject matter, reading, writing, and studying for DL courses as they would in regular courses.

In addition, students who manage their time well, log into DL courses regularly, and submit completed work on time, and meet course expectations would do well in any course, but especially in DL courses. Communicating with the professor in a timely manner when there are questions or problems is also critical to student success.

Online Classes
Classes are delivered via the Internet, and students must attend a mandatory on-campus orientation meeting typically during the first week of classes. Students who cannot attend this meeting must contact their professors before the starting classes each term.

Hybrid Classes
These classes have both on-campus class meetings and online class hours off-campus. The number of on-campus meetings is determined by the professor.

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

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, Room 1561A
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 (MARCC), 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.

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.

LEARNING RESOURCES
- Technology and Health Division
- Math 50 through Math 71
- CRLA certified tutors
- Writing Center
- Transfer Math Activities Resource Center (T-MARC)
- Math Activities Resource Center (MARCC)
- Tech Ed Resource Center (TERC)
- Additional support services

And more!
**LIBRARY AND LEARNING RESOURCES**

**Learning Assistance Center, Building 6, South Entrance, Lower Level, Learning Technology Center**

The Learning Assistance Center (LAC) helps students succeed in college. The LAC offers instruction to review pre-collegiate skills in math, reading, and writing. Courses in study techniques are also available. Tutorial Services in the Learning Assistance Center provides free tutoring to all Mt. San Antonio College students on a drop-in basis, in study groups, and by appointment. Tutors assist students with their course work in most subject areas and with their study skills. The Learning Lab computers and audio-visual materials are available to all students in the community. Students can use the Learning Lab for research, word processing, multimedia assignments, online course work, and to supplement what they are learning in the classroom.

Bailey Smith, Director
Learning Assistance Center
Ext. 5669

**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 the thousands of books already in circulation, the Library is in the process of making hundreds of closed-captioned DVDs available for circulation as well, to allow students easier access to the Library’s media collection. Beyond traditional resources such as books, journals, newspapers, videos, career guides, and college catalogs, researchers may also search numerous full-text article databases and access to nearly 25,000 full-text books. Reserves allows faculty to provide continuous access to course materials free of charge to students. Professional librarians are available days 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. 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**

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Technology</td>
<td>A.S. Degree &amp; Certificates</td>
</tr>
<tr>
<td><strong>Prime Focus:</strong> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>Job Market:</strong> Career opportunities include Architect, Architectural Designer, Drafter, CADD Operator, Model Builder, and Illustrator. (See Sections 7 and 8)</td>
<td></td>
</tr>
<tr>
<td>Engineering Design Technology</td>
<td>A.S. Degrees &amp; Certificates</td>
</tr>
<tr>
<td><strong>Prime Focus:</strong> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>Job Market:</strong> 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)</td>
<td></td>
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**COMMERCIAL AND ENTERTAINMENT ARTS DEPARTMENT**

<table>
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<tr>
<th>Program</th>
<th>Degree</th>
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<tbody>
<tr>
<td>Advertising Design &amp; Illustration</td>
<td>A.S. Degree</td>
</tr>
<tr>
<td><strong>Prime Focus:</strong> Builds upon the core art foundations to provide students with the skills and design concepts utilized in the visual communication industries.</td>
<td></td>
</tr>
<tr>
<td><strong>Job Market:</strong> Advertising Design &amp; Illustration focuses on the visual communication and design skills that are employed in graphic design, illustration, animation, multimedia and entertainment arts industries.</td>
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</tr>
<tr>
<td>Aesthetics for Technology</td>
<td>Certificate</td>
</tr>
<tr>
<td><strong>Prime Focus:</strong> Provides fundamental design skills and concepts related to art and technology-related industries.</td>
<td></td>
</tr>
<tr>
<td><strong>Job Market:</strong> Skills acquired in this program may be utilized in a variety of visual communication industries including Art, Advertising, and Multimedia.</td>
<td></td>
</tr>
<tr>
<td>Animation (Traditional, 2-D, and 3-D Digital Animation)</td>
<td>A.S. Degree &amp; Certificates</td>
</tr>
<tr>
<td><strong>Prime Focus:</strong> An integrated program of Traditional and Digital Animation providing skills for the entertainment arts.</td>
<td></td>
</tr>
<tr>
<td><strong>Job Market:</strong> Supplies skills for a variety of entertainment arts careers including Traditional and Digital Animation, Motion Graphics, Gaming, Special Effects, and Web Animation.</td>
<td></td>
</tr>
<tr>
<td>Web Page Design</td>
<td>Certificate</td>
</tr>
<tr>
<td><strong>Prime Focus:</strong> To provide students with a course of study that includes the use of technology and design issues in a comprehensive way.</td>
<td></td>
</tr>
<tr>
<td><strong>Job Market:</strong> Web design skills are used any time an organization, business, or individual utilizes the internet for marketing or advertising or as a promotional tool.</td>
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**Instruction and Learning Resources**

2011-12 Mt. San Antonio College Catalog
## Departments offering programs in computer programming, security, and servicing

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.

### 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:

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

### Prime Focus: Computer Information Systems

**A.S. Degree & Certificate**

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, relational database design in Microsoft Access, SQL Server, MySQL and Oracle. Other course offerings include systems analysis and design, telecommunications and networking, Windows, Mac OS, and Linux operating systems, information systems security, client/server side web programming and software development courses in: Visual Basic, Java, PHP, JavaScript, C++, and C#.

### Prime Focus: Electronics and Computer Technology

**A.S. Degree & Certificate**

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.

### Prime Focus: Computer Science/Mathematics

**Transfer**

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.

### Computers and Computer Technology Department

**A.S. Degree & Certificate**

- **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, 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; Photjournalism; Commercial or Industrial Photography; Broadcast, Entertainment or Software Graphic Design. (See Sections 7 and 8)

### Photography

**A.S. Degree & Certificate**

- **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, Photographic Developing/Printing Technician, Digital Photo Assistant, and Digital Editing Technician. (See Sections 7 and 8)

### COMMERICAL AND ENTERTAINMENT ARTS DEPARTMENT (CONT.)

#### Prime Focus: Computer Graphic Design/Photography

**A.S. Degree & Certificate**

**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; Photjournalism; Commercial or Industrial Photography; Broadcast, Entertainment or Software Graphic Design. (See Sections 7 and 8)

### ELECTRONICS & COMPUTER TECHNOLOGY DEPARTMENT

**A.S. Degree & Certificate**

- **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)

### COMPUTER INFORMATION SYSTEMS DEPARTMENT (CONT.)

Mt. SAC’s Regional Information Security Center (RISC) has developed these new computer security courses to assist students with job-related and personal computer security demands:

- **CIS 11 – Practical Computer Security**
- **CIS 13 – Principles of Information Systems Security**
- **CIS 15 – Operating Systems Security**
- **CIS 21 – Networking Vulnerabilities**
- **CIS 23 – Network Analysis, Intrusion Detection/Prevention Systems**
- **CIS 25 – Network Security and Firewalls**
- **CIS 27 – Defending Computer Systems Hands-On**
- **CIS 29 – CNASM Service Learning**

These above security courses meet the Committee on National Security Systems (CNSS) National Training Standards for Information Systems Security Professionals, NISTISSI No. 4011.


### Standards for Information Systems Security Professionals, NSTISSI No. 4011.

### LEARNING RESOURCES

- **Prime Focus:** Offers the 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, software engineers, 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 Six

Campus Facilities
CAMPUS FACILITIES

Art Gallery
Building 1B, Ext. 4328

The Mt. San Antonio College Art Gallery has a long history of outstanding Gallery Exhibitions highlighting prominent international and national artists as well as its outstanding faculty and students. The Gallery offers four to five exhibitions per year. Among these are the Faculty Exhibition featuring the works of Mt. San Antonio College faculty artists and the annual Student Exhibition featuring student work from the fine arts, animation, advertising design, computer graphics and photography.

For information on Gallery Exhibition dates and times, contact the Art Gallery office at (909) 274-4328

Athletic Facilities, Ext. 4630

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 gymnastics, wrestling gym, strength-training facilities, an Olympic size swimming pool, an Exercise Science/Wellness Center.

Auxiliary Services, Building 9D, Ext. 4470

The Auxiliary Services/Accounting Office serves students, faculty, staff, and the campus community. The following services are provided by this office:

- administration and supervision of the fiscal operations of the Associated Students
- accounting for Mt. SAC Relays, the Cross Country Invitational Meet and the AAF Youth Days
- accounting for campus clubs and trusts
- administration of the Athletic Services Fund
- accounting for the bookstore, Dining Services, and Performing Arts
- administration of contracts
- ticket sales for student events
- limited cashing of personal checks with campus ID
- ordering and distributing faculty caps and gowns
- billing for catering from Dining Services
- payroll/Human Resources for all areas of the enterprise
- processing of purchase orders and checks for all areas of the enterprise
- preparing daily change funds for all areas of the enterprise
- processing vending machine refunds
- selling Foothill and Metro bus passes

Bookstore (SacBookRac)
Building 9A, Ext. 4475

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.

Refund Policy

Students must purchase their own textbooks and supplies. Expenses for books and supplies for full-time students average about $300-$350 per semester, depending upon the program of study selected.

Refunds are allowed within a certain limited time period when classes are changed and officially dropped. The refund policy is posted and available in the bookstore and printed on a bookmark given at the time of purchase.

Child Development Center and Laboratory School
Building 9E, Ext. 4920

Admission Policy

Early care and education services for children from 3 months through 5 are provided between the hours of 6:30 a.m. and 7:00 p.m., Monday through Thursday and 6:30 a.m. until 5 p.m. on Fridays for student/parent, staff, and community parents (community children on a space available basis only). 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.

State Preschool Program

A State Preschool Program is available for eligible student/parents of 3- and 4-year-old children (4-year-old children have priority). There may be a minimum daily fee for this program.

General Childcare Funding

This program is available on a limited basis for eligible student/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.

Exercise Science/Wellness Center
Building 27A, North Door, Ext. 4625

This modern, multi-dimensional facility offers health and lifestyle screening; health, fitness, and performance physical fitness assessments; all levels of aerobic exercise (including step aerobics); circuit/strength training; and cardiorespiratory exercise.

Programs and services include: stress management, nutrition, diet/weight control, metabolic testing, athletic performance testing, individual health/fitness programming and injury prevention/rehabilitation. Activities are offered for all age groups.

The Center is open for a fee to Mt. San Antonio College students, staff, and surrounding community. The Center also provides corporate employee wellness programs on campus and at business work sites. For further information, contact the Exercise/Wellness Center at Ext. 4625.

Farm, Ext. 4540

The Farm, serving as a laboratory and as a supervised farm for students, offers an unrivaled opportunity for learning. Students interested in stock breeding, veterinary science, agri-business, horse production, field crop production, horticulture, floral design, or farm products may gain valuable experience in these fields by working with their own animals and crops while attending college. Contact the College’s Campus Events office at Ext. 4794 for information on guided tours.

Food Services

The Food Services Department provides the campus community with a cafeteria, coffeehouse, fast food restaurant, and four convenience stores.

Campus Café
Building 8, Ext. 4105

The Campus Café, located on the west side of campus next to the SacBookRac, features homemade, fresh cafeteria-style dining. Catering is available for small meetings up to large banquets.

Common Grounds
Building 8, Ext. 4180

Common Grounds, located inside the Campus Café, features Starbucks coffees, wireless Internet access, and Wednesday evening poetry readings.
Campus Facilities

Mountie Grill
Building 19C, Ext. 4624
The Mountie Grill, located on the southern portion of the campus, is a fast food restaurant providing a variety of food items.

Convenience Stores
All stores offer a variety of snack foods, cold and hot beverages, and school and test supplies.

Mountie Stop
Building 9A, Ext. 4497
Express Stop
Building 16A, Ext. 4142
Prime Stop
Building 61
Short Stop
Building 66
Vending Machines
Buildings 4, 7, 9C, 26, 28, 30, 40, 45

Performing Arts Center
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.

The Sophia B. Clarke Theater 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.

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. 4425
The planetarium offers instructional support for college classes, as well as a wide variety of public programs on a regular basis. For more information, please contact the Natural Science Division Office at Ext. 4425.

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.
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 (Interssegmental 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: Completion of a Certificate of Achievement for a CSU General Education Breadth or IGETC is not noted on a student's official transcript. The awarding of all Certificates of Achievement is noted on a student's official transcript.

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### 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 - Financial 5.0 CSU,UC
  - BUSA 72 Principles of Accounting - Bookkeeping 5.0
  - BUSA 53 Ten-Key Calculations 2.0
  - BUSA 81 Work Experience in Accounting 1.0
  - BUSO 25 Business Communications 3.0 CSU

**Plus the following courses:**

- BUSA 75 Using Microcomputers in Financial Accounting 1.0
- BUSA 61 Work Experience in Accounting 1.0
- BUSO 25 Business Communications 3.0 CSU

**Total Units:** 18.5 - 19.5

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### Accounting - Financial Planning

**Accounting and Management Department Certificate L0599**

The Accounting - Financial Planning Certificate provides the student with basic accounting skills combined with specialized training in financial planning. Students completing this certificate can assist companies within the areas of budgeting, tax, and financial planning.

#### Requirements for the Certificate

**Required courses:**

- BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
- BUSA 8 Principles of Accounting - Managerial 5.0 CSU,UC
- 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
- BUSO 25 Business Communications 3.0 CSU

**Total Units:** 21.0

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### Accounting - Managerial

**Accounting and Management Department Certificate L0533**

The Accounting - Managerial Accounting Certificate provides basic accounting skills and knowledge concentrating in the area of managerial accounting. This prepares the student for entry-level positions within the managerial accounting segment. Common duties performed in this field include cost analysis, budget preparation, variance analysis, expense reporting, account analysis, and preparation of various internal reports to help management make decisions.

#### Requirements for the Certificate

**Required courses:**

- BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
- BUSA 8 Principles of Accounting - Managerial 5.0 CSU,UC
- 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
- BUSO 25 Business Communications 3.0 CSU

**Total Units:** 21.0

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### Administrative Assistant - Level II

**Computer Information Systems Department Certificate L0594**

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 coursework (13 units) as follows:
  - BUSO 5 Business English 3.0
  - C11 11B Computer Keyboarding 1.5 CSU
  - C11 11 Computer Keyboarding 3.0 CSU
  - C11 15 Microcomputer Applications 4.0 CSU,UC
  - C11 41 Office Management Skills 3.0

**Plus the following Level II coursework as follows:**

- BUSO 25 Business Communications 3.0 CSU
- C11 12 Intermediate Computer Keyboarding 3.0
- C11 31 Microsoft Word 4.0

**Total Units:** 22.0
Air Conditioning and Refrigeration

Program: 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.

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 4.0
- AIRC 25 Electrical Fundamentals 5.0
- AIRC 26 Gas Heating Fundamentals 4.0
- AIRC 30 Heat Load Calculations 4.0
- AIRC 31 Commercial Electrical 4.0
- AIRC 32A Air Properties and Measurement 1.5
- AIRC 34 Advanced Mechanical 4.0
- Total Units 31.5

Recommended Electives:
- AIRM 70A Aircraft Maintenance Technology 2.0
- AIRM 70B Aircraft Maintenance Technology 2.0
- Total Units 41.0

Aircraft Powerplant Maintenance Technology - Evening

Program: Aircraft Maintenance Technician & Manufacturing Technology
Certificate: T0952

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 powerplants and their components. Completion of this program leads to an Associate in 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.

Required courses:
- AIRM 65A Aircraft Powerplant 13.0
- AIRM 65B Aircraft Powerplant 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 41.0

Recommended Electives:
- AIRM 74 Aircraft Maintenance Technology - Work Experience 3.0
- AIRM 80 Lab Studies in Aircraft Maintenance Technology 4.0
- AIRM 81 Lab Studies in Aircraft Maintenance Technology 4.0
- EDT 12 Technical Engineering Drawing II 5.0
- ELEC 90 Survey of Electronics 2.0
- MFG 70 Technical Mathematics - Manufacturing Applications 2.0
- PHYS 1 Physics 4.0
- Total Units 41.0
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 aircrafts and their components. Completion of this program leads to an Associate in 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**

**Required courses:**

**AIRM 66A** Airframe Maintenance Technology

**AIRM 66B** Airframe Maintenance Technology

**AIRM 70A** Aircraft Maintenance Electricity and Electronics

**AIRM 70B** Aircraft Maintenance Electricity and Electronics

**AIRM 71** Aviation Maintenance Science

**AIRM 72** Aviation Materials and Processes

**AIRM 73** Aviation Welding

**Total Units:** 39.0

**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

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 aircrafts and their components. Completion of this program leads to an Associate in 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**

**Required courses:**

**AIRM 70A** 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

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 aircrafts and their components. Completion of this program leads to an Associate in 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**

**Required courses:**

**AIRM 70A** 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

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 aircrafts and their components. Completion of this program leads to an Associate in 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**

**Required courses:**

**AIRM 70A** 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
Special Instructions

- Restricted Electives must be taken prior to enrollment in Field Experience and can be taken in conjunction with core and skills courses.

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 odorous chemicals and specimens
- Exposed to hazardous agents, body fluids and wastes
- Regularly exposed to the risk of blood borne diseases
- May be exposed to infectious and contagious disease without prior notification

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 – 2D Multimedia

<table>
<thead>
<tr>
<th>Commercial and Entertainment Arts Certificate T0301</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Digital 2-D Multimedia certificate provides training for creative careers that integrate animation with video, audio, graphics and special effects for Websites, broadcast, film, presentation or mobile content.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Requirements for the Certificate Required courses:</td>
<td></td>
</tr>
<tr>
<td>ANIM 101A Drawing - Gesture and Figure 3.0</td>
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</tr>
<tr>
<td>ANIM 104 Drawing Fundamentals 3.0</td>
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</tbody>
</table>

### Animation – 3D and CG Gaming

<table>
<thead>
<tr>
<th>Commercial and Entertainment Arts Certificate T0302</th>
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</tr>
</thead>
<tbody>
<tr>
<td>The Animation – 3D and CG Gaming Certificate provides training in 3-D animation including character modeling, lighting, texture, environment and special effects that lead to creative careers in film, television and the video game industry.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
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<tr>
<td>ANIM 104 Drawing Fundamentals 3.0</td>
<td></td>
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<tr>
<td>ANIM 108 Principles of Animation 3.0</td>
<td></td>
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<tr>
<td>ANIM 115 Storyboarding 3.0</td>
<td></td>
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<tr>
<td>ANIM 116 Character Development 1.5</td>
<td></td>
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<tr>
<td>ANIM 130 Introduction to 3-D Computer Animation 3.0</td>
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</tr>
</tbody>
</table>

### Animation – Traditional

<table>
<thead>
<tr>
<th>Commercial and Entertainment Arts Certificate T0303</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
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<td>ANIM 130 Introduction to 3-D Computer Animation 3.0</td>
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</tr>
</tbody>
</table>

### Architectural Technology – Level I

<table>
<thead>
<tr>
<th>Certificate T0291</th>
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</thead>
<tbody>
<tr>
<td>This multi-level certificate program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment in the field or preparation or transfer to the professional school of architecture. The Level I certificate provides a broad overview of the fundamental skills essential to the field, suitable for entry-level employment as an office assistant.</td>
<td></td>
</tr>
<tr>
<td>Requirements for the Certificate Required courses:</td>
<td></td>
</tr>
<tr>
<td>ARCH 10 Design I – Elements of Design 3.0</td>
<td></td>
</tr>
<tr>
<td>ARCH 12 Architectural Materials and Specifications 3.0</td>
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<tr>
<td>ARCH 16 Basic CAD and Computer Application 4.0</td>
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<tr>
<td>Plus the following courses:</td>
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<tr>
<td>ENGL 68 Preparation for College Writing 4.0</td>
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</tr>
<tr>
<td>MATH 51 Elementary Algebra 4.0</td>
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<tr>
<td>Total Units 21.0</td>
<td></td>
</tr>
</tbody>
</table>
Programs of Study Leading to a Certificate

Architectural Technology - Technology Concentration Level II
Architecture and Engineering
Design Department
Certificate T0203

This Level II Technology Concentration Certificate focuses upon the preparation of architectural construction documents, with emphasis on computer-aided design (CAD) applications. Regulatory requirements and an overview of construction practices are also included. The student will prepare a portfolio of CAD documentation, including 2-D and 3-D projections. The Level II Technology Concentration Certificate prepares students for employment as an intermediate CAD draftsman or production specialist.

Requirements for the Certificate
Required courses:
Completion of the Architectural Technology Level I coursework (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
INS 70 Elements of Construction 3.0

Plus the following courses:
ARCH 28 Architectural CAD Illustration and Animation 3.0
ARCH 29 Design IV - Advanced Project 3.0

PLUS
Select one (1) course from:
PHYS 1 General Physics 4.0
PHYS 2AG General Physics 4.0

Total Units 43.0

Architectural Technology - Technology Concentration Level III
Architecture and Engineering
Design Department
Certificate T0204

The Level III Technology Concentration Certificate provides additional expertise in advanced CAD applications and professional practice. The Level III Technology Concentration Certificate prepares students for employment as an intermediate CAD operator or production specialist.

Requirements for the Certificate
Required courses:
Completion of the Architectural Technology Level I and II coursework (43) units.
PLUS
ARCH 14 Building and Zoning Codes 3.0
ARCH 15 Architectural Working 3.0
ARCH 18 Architectural Computer 3.0
ARCH 26 Architectural CAD Working 3.0
EDT 20 Technical Descriptive Geometry 3.0
INS 70 Elements of Construction 3.0

Plus the following courses:
ARCH 28 Architectural CAD Illustration and Animation 3.0
ARCH 29 Design IV - Advanced Project 3.0

PLUS
Select one (1) course from:
ARCH 13 Architectural Illustration 3.0
ARCH 21 Design II - Architectural Design 3.0
ARCH 23 Architectural Presentations 3.0
ARCH 31 World Architecture I 3.0
ARCH 32 World Architecture II 3.0

PLUS
Select three (3) units from:
ARTD 15A Drawing: Beginning 3.0
ARTD 20 Design: Two Dimensional 3.0
ARTS 22 Design: Three-Dimensional 3.0

Total Units 50.0 - 52.0

Architectural Technology - Design Concentration Level III
Architecture and Engineering
Design Department
Certificate T0205

This Level II Design Concentration Certificate focuses upon studio design, drawing, and presentation skills, including model-making, 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 coursework (23) units.
PLUS
ARCH 13 Architectural Illustration 3.0
ARCH 21 Design II - Architectural Design 3.0
ARCH 23 Architectural Presentations 3.0
ARCH 31 World Architecture I 3.0
ARCH 32 World Architecture II 3.0

Plus select one (1) course from:
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
ARCH 28 Architectural CAD Illustration and Animation 3.0
ARCH 89 Architectural Work Experience 1.0 - 2.0
INS 70 Elements of Construction 3.0

Total Units 51.0

Architectural Technology - Design Concentration Level III
Architecture 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 coursework (42) units.

Building Automation
Air Conditioning, Welding and Water Technologies
Certificate T0309

This program is designed to prepare the student for a career in the fields of Building Automation, Energy Management, and Green Building Technologies. Students desiring a Bachelor’s Degree (transfer program) should consult with an advisor to discuss transferability of courses.

Requirements for the Certificate
Required courses:
AIRC20 Refrigeration Fundamentals 3.0
AIRC25 Electrical Fundamentals for A/C & Refrigeration 4.0
Business: Human Resource Management - Level III
Accounting and Management Department Certificate L0535

Students completing the Level III Certificate will have knowledge and practical experience in business communications and computer use. Successful completion of this certificate prepares students to handle the increasing diversity and complexity of modern human resource management. Completing the advanced certificate will help those working in the human resource field to prepare for professional certification by the Human Resource Certification Institute.

Requirements for the Certificate

Required courses:
Completion of Human Resource Management - Level I and Level II coursework (18 Units) as follows:

Level I as follows:
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 61 Business Organization and Management 3.0 CSU

Level II as follows:
- BUSM 62 Human Resource Management 3.0
- ANTH 22 General Cultural Anthropology 3.0 CSU,UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSO 25 Business Communications 3.0 CSU

Plus the following courses:
- BUSA 70 Payroll and Tax Accounting 3.0
- CSB 15 Microcomputer Applications 4.0 CSU,UC
- Total Units 25.0

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 coursework (9 Units) as follows:

Level I as follows:
- BUSM 50 Principles of International Business 3.0 CSU
- BUSM 51 Principles of International Business 3.0 CSU
- BUS 36 Principles of Marketing 3.0 CSU

Plus the following courses:
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU

Select one (1) course from:
- BUS 70 International Marketing Concepts 3.0
- CHIN 1 Beginning Chinese 4.0 CSU,UC
- FRCH 1 Elementary French 4.0 CSU,UC
- GER M 1 Elementary German 4.0 CSU,UC
- ITAL 1 Elementary Italian 4.0 CSU,UC
- JAPN 1 Elementary Japanese 4.0 CSU,UC
- SPAN 1 Elementary Spanish 4.0 CSU,UC
- 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: International - Level III
Accounting and Management Department Certificate L0528

Upon completion of the Business: International Level III Certificate, students will have acquired the specific skills needed to successfully complete international business transactions. Students will gain a practical, hands-on perspective of how to compete in a global system of conflicting laws, regulations, and requirements.

Completion of the Business: International - Level I and II coursework (18 Units) as follows:

Required courses:

Level I as follows:
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 50 Principles of International Business 3.0 CSU
- BUS 36 Principles of Marketing 3.0 CSU

Required courses:

Level II as follows:
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU

Select one (1) course from:
- BUS 70 International Marketing Concepts 3.0
- CHIN 1 Beginning Chinese 4.0 CSU,UC
- FRCH 1 Elementary French 4.0 CSU,UC
- GER M 1 Elementary German 4.0 CSU,UC
- ITAL 1 Elementary Italian 4.0 CSU,UC
- JAPN 1 Elementary Japanese 4.0 CSU,UC
- SPAN 1 Elementary Spanish 4.0 CSU,UC
- 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: International - Level III Certifications L0528

Accounting and Management Department Certificate L0528

Programs of Study Leading to a Certificate

LEADING TO A CERTIFICATE

PROGRAMS OF STUDY
Programs of Study Leading to a Certificate

Recommended Electives:
- BUSM 61 Work Experience in Business
- BUSM 65 Special Issues in Business
- BUSS 62 Special Issues in Marketing

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 enable them to prosper in the business environment. 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 L0591 coursework (9 Units) as follows:
  - BUSM 20 Principles of Business 3.0 CSU,UC
  - BUSM 61 Business Organization 3.0 CSU
  - BUSS 36 Principles of Marketing 3.0 CSU

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

Business: Management - Level III
Accounting and Management Department
Certificate L0591

This intermediate certificate builds upon the Level II Certificate to provide students with core skills developed in this certificate. Successful completion of this certificate prepares students to handle the increasing productivity through the development of people. 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
Required courses:
- Completion of the Business: Management - Level II coursework (18.5 Units) as follows:
  - BUSM 20 Principles of Business 3.0 CSU,UC
  - BUSM 61 Business Organization 3.0 CSU
  - BUSS 36 Principles of Marketing 3.0 CSU
  - BUSM 62 Human Resource Management 3.0 CSU
  - BUSO 25 Business Communications 3.0 CSU

Total Units: 30.0

Business: Retail Management
Accounting and Management Department
Certificate L0521

This certificate prepares students to handle the increasing productivity through the development of people. Teamwork, and leadership skills that lead to enhanced productivity through the development of people. Completion of this certificate leads to new career opportunities for those currently employed in the small business arena.

Requirements for the Certificate
Required courses:
- Completion of the Business: Retail Management - Level I coursework (9.5 Units) as follows:
  - BUSO 25 Business Communications 3.0 CSU
  - BUSO 30 Retail Store Management and Merchandising 3.0 CSU
  - FASH 62 Retail Store Management and Merchandising 3.0 CSU

Total Units: 19.0

Business: Retail Management
Accounting and Management Department
Certificate L0591

This intermediate certificate builds upon the Level I Certificate to provide students with core skills developed in this certificate. Successful completion of this certificate prepares students to handle the increasing productivity through the development of people. 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
Required courses:
- Completion of the Retail Management - Level II coursework (21.5 Units) as follows:
  - BUSO 25 Business Communications 3.0 CSU
  - BUSO 30 Retail Store Management and Merchandising 3.0 CSU
  - FASH 62 Retail Store Management and Merchandising 3.0 CSU

Total Units: 18.0

Business: Small Business Management
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
Required courses:
- Completion of Business: Small Business Management - Level II coursework (9 Units) as follows:
  - BUSM 62 Human Resource Management 3.0 CSU
  - BUSS 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**

**Required courses:**

Completion of Business: Small Business Management Level I and II coursework (18.5 Units) as follows:

- BUSM 20 Principles of Business [3.0 CSU,UC]
- BUSM 66 Small Business Management [3.0 CSU]
- BUSS 36 Principles of Marketing [3.0 CSU]

**Required courses:**

- BUSM 60 Human Relations in Business [3.0 CSU]
- BUSM 62 Human Resource Management [3.0]

**Plus the following courses:**

Level III as follows:

- BUSA 7 Principles of Accounting [5.0 CSU,UC - Financial]
- BUSM 10 Principles of Continuous Quality Improvement [3.0]
- CSIB 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

**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:**

Completion of the Children’s Program Certificate: General as follows:

- **CHILD 1** Child, Family and Community Principles/Practices [3.0 CSU,UC in Child Development Programs]
- **CHILD 5** Child, Family and Community Principles/Practices [3.0 CSU in Child Development Programs]
- **CHILD 6** Survey of Child Development Curriculum [3.0 CSU]
- **CHILD 10** Child Growth and Development - Honors [3.0 CSU,UC]
- **CHILD 10H** Child Growth and Development - Honors [3.0 CSU,UC]
- **CHILD 64** Health, Safety and Nutrition of Young Children [3.0 CSU]
- **CHILD 68** Children with Special Needs [3.0 CSU]
- **CHILD 84** Guidance and Discipline in Child Development Settings [1.0 CSU]

**PLUS**

- Select three (3) courses from:
  - **CHILD 61** Language Arts & Art Media for Young Children [3.0]
  - **CHILD 62** Music and Motor Development for Young Children [3.0 CSU]
  - **CHILD 63** Creative Science and Math for Young Children [3.0 CSU,UC]
  - **CHILD 73** Infant/Toddler Care and Development [3.0 CSU]

**Total Units 43.0**

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

**Certificate L1328**

This certificate enhances the student’s knowledge beyond Level I, providing additional skills in working with your children.

**Requirements for the Certificate**

**Required courses:**

Completion of the Children’s Program coursework:

**General - Level I, as follows:**

- **CHILD 1** Child, Family and Community Principles/Practices [3.0 CSU,UC in Child Development Programs]
- **CHILD 5** Child, Family and Community Principles/Practices [3.0 CSU in Child Development Programs]
- **CHILD 6** Survey of Child Development Curriculum [3.0 CSU]
- **CHILD 10** Child Growth and Development - Honors [3.0 CSU,UC]
- **CHILD 10H** Child Growth and Development - Honors [3.0 CSU,UC]
- **CHILD 64** Health, Safety and Nutrition of Young Children [3.0 CSU]
- **CHILD 68** Children with Special Needs [3.0 CSU]
- **CHILD 84** Guidance and Discipline in Early Childhood Settings [1.0 CSU]

**PLUS**

- Select three (3) courses from:
  - **CHILD 61** Language Arts & Art Media for Young Children [3.0]
  - **CHILD 62** Music and Motor Development for Young Children [3.0 CSU]
  - **CHILD 63** Creative Science and Math for Young Children [3.0 CSU,UC]
  - **CHILD 73** Infant/Toddler Care and Development [3.0 CSU,UC - Total Units 28.0]

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### Children’s Program Certificate: General - Level III

**Certificate L1327**

This third level of the Children’s Program Certificate: General is expected to meet or exceed Title 5 education requirements for Assistant Teacher, Associate Teacher, and Teacher (with 16 units of G.E.)

**Requirements for the Certificate**

**Required courses:**

Completion of the Children’s Program coursework:

**General - Level I, as follows:**

- **CHILD 1** Child, Family and Community [3.0 CSU,UC]
- **CHILD 5** Principles/Practices [3.0 CSU in Child Development Programs]
- **CHILD 6** Survey of Child Development Curriculum [3.0 CSU]
- **CHILD 10** Child Growth and Development - Honors [3.0 CSU,UC]
- **CHILD 10H** Child Growth and Development - Honors [3.0 CSU,UC]
- **CHILD 64** Health, Safety and Nutrition of Young Children [3.0 CSU]
- **CHILD 68** Children with Special Needs [3.0 CSU]
- **CHILD 84** Guidance and Discipline in Early Childhood Settings [1.0 CSU]

**PLUS**

- Select four (4) units from:
  - **CHILD 1** Child, Family and Community [3.0 CSU,UC]
  - **CHILD 5** Principles/Practices [3.0 CSU in Child Development Programs]
  - **CHILD 6** Survey of Child Development Curriculum [3.0 CSU]
  - **CHILD 10** Child Growth and Development - Honors [3.0 CSU,UC]
  - **CHILD 10H** Child Growth and Development - Honors [3.0 CSU,UC]
  - **CHILD 64** Health, Safety and Nutrition of Young Children [3.0 CSU]
  - **CHILD 68** Children with Special Needs [3.0 CSU]
  - **CHILD 84** Guidance and Discipline in Early Childhood Settings [1.0 CSU]

**Total Units 30.0**
Children’s Program Certificate:
Small Business Management
Child Development
Certificate T1311
The Children’s Programs Small Business Management Certificate provides information for operating or owning a preschool.

Requirements for the Certificate
Required courses:
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSO 5 Business English 3.0
- 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 3.0 CSU, UC
- CHLD 64 Health, Safety and Nutrition of Young Children 3.0 CSU
- CHLD 71A Administration of Child Development Programs 3.0 CSU
- CHLD 71B Management/Marketing/Personnel for ECD Programs 3.0
- FCS 41 Life Management 3.0 CSU

Total Units 33.0

Recommended Electives:
- BUSA 70 Payroll and Tax Accounting
- BUSA 71 Financial Planning
- BUSL 18 Business Law
- BUSL 18H Business Law - Honors
- BUSM 20 Principles of Business
- BUSM 61 Business Organization and Management
- BUSO 25 Business Communications
- BUSO 33 Advertising and Promotion
- BUSO 36 Principles of Marketing
- CSB 11 Computer Information Systems

Children’s Program Certificate:
Teaching
Child Development
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).

Requirements for the Certificate
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 - Honors 3.0 CSU, UC
- 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

Total Units 29.0 - 30.0

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 - Honors 3.0 CSU, UC
- CHLD 63 Creative Thinking 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 Level I and II certificate programs prepare students to become computer and networking service technicians. Courses required for the Level I certificate provide foundations in basic electricity and electronics, operating systems, computer service and troubleshooting, and preparation for the A+ certification examination sponsored by CompTIA and offered at testing centers throughout the country. In addition to the Level I certificate requirements, students seeking the Level II certificate cover computer networking, server, and customer relations, and will take preparatory courses for the CompTIA Network+, Server+, and Security+ certification exams. These industry certifications are recognized worldwide as benchmarks for the computer and networking technician. Further, students will have requisite skills upon which to seek additional IT certifications available for the computer and networking field.

Requirements for the Certificate
Required courses:
- CNET 60 A+ Certification Preparation 2.0
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- GAS 15 Microcomputer Applications 4.0 CSU, UC
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- ELEC 56 Digital Electronics 4.0 CSU

Plus the following courses:
- CNET 50 PC Operating Systems 4.0
- CNET 52 PC Troubleshooting 4.0
- CNET 54 Computer Networks 4.0
- CNET 56 A+ Certification Preparation 2.0
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- CNET 50 PC Operating Systems 4.0
- CNET 52 PC Troubleshooting 4.0
- CNET 54 Computer Networks 4.0
- CNET 56 A+ Certification Preparation 2.0
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- CNET 50 PC Operating Systems 4.0
- CNET 52 PC Troubleshooting 4.0
- CNET 54 Computer Networks 4.0
- CNET 56 A+ Certification Preparation 2.0
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU

Recommended Electives:
- ELEC 51 Electronic Devices
- ELEC 74 Microprocessor Systems
- EST 54 Cabling and Wiring Standards

Total Units 43.0 - 44.0
### Computer Systems Technology

**Electronics and Computer Technology Department**

**Certificate L0924**

In addition to courses in electronics fundamentals, the Computer Systems Technology certificate encompasses advanced coursework in computer systems circuitry, including microcontrollers and microprocessors. This advanced certificate is one of three available for students who do not complete all second-year systems courses at once; or who complete them one at a time. Two other 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. A.S. degree recipients are automatically eligible for the N.A.R.T.E. 4th Class Technician license.

**Requirements for the Certificate**

**Required courses:**

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

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 13</td>
<td>Digital System Design</td>
</tr>
<tr>
<td>ELEC 14</td>
<td>Digital System Fabrication</td>
</tr>
<tr>
<td>ELEC 15</td>
<td>Digital System Troubleshooting</td>
</tr>
<tr>
<td>ELEC 16</td>
<td>Digital System Testing</td>
</tr>
<tr>
<td>ELEC 17</td>
<td>Digital System Programming</td>
</tr>
</tbody>
</table>

**Total Units**: 24.0

### 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>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 12</td>
<td>Architectural Materials</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### 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.

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 40</td>
<td>Financial Management</td>
</tr>
<tr>
<td>BUSL 41</td>
<td>Human Resources Management</td>
</tr>
<tr>
<td>BUSL 42</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>BUSL 43</td>
<td>Consumer Behavior and Family Services</td>
</tr>
<tr>
<td>BUSL 44</td>
<td>Consumer Behavior and Family Services</td>
</tr>
</tbody>
</table>

**Total Units**: 22.0

### 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>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 66</td>
<td>Administration of Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 10</td>
<td>Introduction to Correctional Sciences</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 15</td>
<td>Control and Supervision of the Offender</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 20</td>
<td>Correctional Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 25</td>
<td>Probation and Parole</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 30</td>
<td>Ethnic Relations in Corrections</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**PLUS**

**Select four (4) courses from:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 2</td>
<td>The Administration of Justice System</td>
</tr>
<tr>
<td>ADJU 2</td>
<td>Principles and Procedures of the Justice System</td>
</tr>
<tr>
<td>ADJU 20</td>
<td>Principles of Investigation</td>
</tr>
<tr>
<td>ADJU 38</td>
<td>Narcotics Investigation</td>
</tr>
<tr>
<td>ADJU 59</td>
<td>Gangs and Corrections</td>
</tr>
</tbody>
</table>
Digital Photographic Technician
Commercial and Entertainment Arts Department
Certificate L0300
This certificate program is designed to give students specific skills to prepare them for employment in the commercial photographic industry as a digital technician, digital assistant, digital imaging specialist, or photography assistant.

Requirements for the Certificate
GRAP 10 Digital Color Management 3.0
GRAP 12 Photo Editing with Photoshop 3.0
PHOT 10 Basic Digital and Film Photography 3.0
PHOT 11 Industrial Photography 3.0
PHOT 14 Commercial Lighting 3.0
PHOT 20 Color Photography 3.0
PHOT 30 Commercial/Photographic Photography 3.0
Total Units 25.0

Recommended Electives:
CISB 15 Microcomputer Applications 4.0
CISB 16 Macintosh Applications 3.0
GRAP 10 Photoshop Imagery Extended 3.0
PHOT 1 Laboratory Studies: Black and White Photography 3.0
PHOT 29 Studio Business Practices for Commercial Artists

Electronics 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 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

Electronics Technology or Industrial Technology offered in the CSU system. Required courses for the certificate — many of which articulate directly to their equivalents at the CSUs — are the same as for the ECET A.S. degree program except for the college General Education requirement. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls. Nearly all laboratories have new, state-of-the-art equipment to provide students with quality, hands-on learning experiences.

Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronic technician. All students completing the certificate program are automatically eligible to receive, without further examination, the 4th class technician license from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.).

Requirements for the Certificate

Electronics Technology or Industrial Technology offered in the CSU system. Required courses for the certificate — many of which articulate directly to their equivalents at the CSUs — are the same as for the ECET A.S. degree program except for the college General Education requirement. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls. Nearly all laboratories have new, state-of-the-art equipment to provide students with quality, hands-on learning experiences.

Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronic technician. All students completing the certificate program are automatically eligible to receive, without further examination, the 4th class technician license from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.).

Requirements for the Certificate

Electronics Technology or Industrial Technology offered in the CSU system. Required courses for the certificate — many of which articulate directly to their equivalents at the CSUs — are the same as for the ECET A.S. degree program except for the college General Education requirement. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls. Nearly all laboratories have new, state-of-the-art equipment to provide students with quality, hands-on learning experiences.

Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronic technician. All students completing the certificate program are automatically eligible to receive, without further examination, the 4th class technician license from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.).

Requirements for the Certificate

Electronics Technology or Industrial Technology offered in the CSU system. Required courses for the certificate — many of which articulate directly to their equivalents at the CSUs — are the same as for the ECET A.S. degree program except for the college General Education requirement. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls. Nearly all laboratories have new, state-of-the-art equipment to provide students with quality, hands-on learning experiences.

Students completing the ECET certificate program possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician, and electronic technician. All students completing the certificate program are automatically eligible to receive, without further examination, the 4th class technician license from the National Association of Radio and Telecommunications Engineers (N.A.R.T.E.).

Requirements for the Certificate
Electronics Technology

Electronics and Computer Technology Department
Certificate L909S

This one-year program covers the fundamentals of electronics technology. These core courses provide the necessary skills for those seeking entry-level employment as electronics technicians without areas of specialization. Also included is a course in customer-relations training.

Requirements for the Certificate

**Required courses:**

- **ELEC 11** Technical Applications in Microcomputers 3.0 CSU
- **ELEC 12** Computer Simulation and Troubleshooting 2.0 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 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 3.0 CSU
- **TECH 60** Customer Relations 1.0 CSU

**Total Units** 25.0 CSU

Electronics: Industrial Systems

Electronics and Computer Technology Department
Certificate T0908

In addition to courses in electronics fundamentals, the Industrial Systems curriculum encompasses advanced coursework in industrial electronics, including electronic devices for industrial and motor controls. The curriculum culminates in the study of programmable logic controls (PLCs) using the Allen-Bradley series of PLCs running Windows ladder logic software. This advanced certificate is one of three available for students as electronics technicians without areas of specialization.

**Requirements for the Certificate**

**Required courses:**

- **ELEC 11** Technical Applications in Microcomputers 3.0 CSU
- **ELEC 12** Computer Simulation and Troubleshooting 2.0 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 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 3.0 CSU
- **TECH 60** Customer Relations 1.0 CSU

**Total Units** 32.0 CSU

Emergency Medical Technician - Paramedic (EMT-P)

Medical Services Department
Certificate T1281

This Paramedic Program is accredited by CAHAEP (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.

The Emergency Medical Technician-Paramedic (EMT-P) is an individual who is educated and trained during an intensive (32-hours per week) didactic program lasting 16 weeks. This is followed by five (5) weeks of Clinical Internship in a hospital (40-hours per week), and then eight (8) weeks of Field Internship as a practicing Paramedic under the guidance and supervision of a Paramedic Field Preceptor.

**Requirements for the Certificate**

**Required courses:**

- **EMS 10** Fundamentals for Paramedics 4.0 CSU
- **EMS 10** Anatomy and Physiology for Paramedics 2.0 CSU
- **EMS 20** Emergency Cardiac Care for Paramedics 1.0 CSU
- **EMS 30** Pharmacology for Paramedics 2.0 CSU
- **EMS 40** Cardiology for Paramedics 5.0 CSU
- **EMS 50** Paramedic Skills Competency 5.0 CSU
- **EMS 60** EMS Theory for Paramedics 8.5 CSU
- **EMS 70** Paramedic Clinical Internship 4.0 CSU
- **EMS 80** Paramedic Field Internship 9.5 CSU

**Total Units** 41.00 CSU

**Recommended Electives:**

- **ADJU 1** The Administration of Justice System
- **FIRE 1** Fire Protection Organization
- **PSYC 1AH** Introduction to Psychology
- **PSYC 14H** Introduction to Psychology
- **SOC 1** Sociology
- **SOC 1H** Sociology

**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 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.

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.

**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.
- File a College application and be accepted as a student at Mt. San Antonio College.
- Submit an application for the Paramedic Program to the Health Science Programs Office (909) 594-5611, Ext. 4250. 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.
- Take the AVE (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.
- Successful completion of EMS 1 - Fundamentals for Paramedics.
- 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.
- For students who possess a college degree, the English placement examination is not required. However, it will be necessary for students to obtain two (2) official copies of the college transcript showing the degree issued. One official transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office.

**Requirements for the Certificate**

**Total Units** 41.00 CSU

**Recommended Electives:**

- **ADJU 1** The Administration of Justice System
- **FIRE 1** Fire Protection Organization
- **PSYC 1AH** Introduction to Psychology
- **PSYC 14H** Introduction to Psychology
- **SOC 1** Sociology
- **SOC 1H** Sociology

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.

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- 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.
- File a College application and be accepted as a student at Mt. San Antonio College.
- Submit an application for the Paramedic Program to the Health Science Programs Office (909) 594-5611, Ext. 4250. 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.
- Take the AVE (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.
- Successful completion of EMS 1 - Fundamentals for Paramedics.
- 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.
- For students who possess a college degree, the English placement examination is not required. However, it will be necessary for students to obtain two (2) official copies of the college transcript showing the degree issued. One official transcript must be sent to the Health Science Programs 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.

**EXAMPLE:** Mt. San Antonio College Technology and Health Division 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.
Programs of Study Leading to a Certificate

**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
4. Performance in the pre-course, EMS 1 — Fundamentals for Paramedics. This course tests prerequisite knowledge base in medical terminology, anatomy and physiology, EMT basic knowledge and basic math skills in preparation for drug calculations.

All Applicants are required to meet the Essential Functions for Success in the Paramedic Program: anatomy and physiology, EMT basic knowledge and basic math skills in preparation for drug calculations.

**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
- **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

**Skills in Preparation for Drug Calculations.**

**Functions for Success in the Paramedic Program:** anatomy and physiology, EMT basic knowledge and basic math skills in preparation for drug calculations.

**Programs of Study Leading to a Certificate**

**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.

**Engineering Design Technology - Level I**

**Architecture and Engineering Design Department Certificate LD0900**

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 field.

**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** Basic CAD and Computer Applications 4.0 CSU
- **EDT 18** Engineering CAD Applications 4.0 CSU

**Plus the following course:**

- **ELEC 50A** Electronic Circuits (DC) 4.0 CSU

**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.

**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** Basic CAD and Computer Applications 4.0 CSU
- **EDT 18** Engineering CAD Applications 4.0 CSU
- **MFG 11** Manufacturing Processes I 2.0 CSU
- **ELEC 50A** Electronic Circuits (DC) 4.0 CSU

**Total Units 19.0 - 21.0**

**Engineering Design Technology - Level III**

**Architecture and Engineering Design Department Certificate T0916**

The Engineering Design Technology Level III Certificate focuses on the civil and structural design fields, emphasizing three-dimensional illustration and animation. This certificate allows students to pursue employment in the civil design fields.

**Requirements for the Certificate**

**Required courses:**

- **EDT 12** Technical Engineering Drawing I 3.0 CSU

**Total Units 31.0 - 35.0**

**Escrow Management Business Administration Department Certificate LD0511**

**Requirements for the Certificate**

**Required courses:**

- **BUSR 51** Legal Aspects of Real Estate 3.0 CSU
- **BUSR 76** Escrow Procedures I 3.0 CSU
- **BUSR 77** Escrow Procedures II 3.0 CSU
- **CISB 15** Microcomputer Applications 4.0 CSU

**Total Units 19.0**

**Total Units 37.0 - 41.0**
Family Child Care
Child Development
Certificate L1316

The Family Child Care Certificate provides the information necessary for operating or owning a family child care business in the home.

Requirements for the Certificate

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 3.0 CSU, UC
- CHLD 10H Child Growth and Development - Honors 3.0 CSU, UC
- CHLD 92 Family Child Care 3.0

Plus the following courses:

- 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

Select one (1) course from:

- 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 72 Teacher, Parent and Child Relationships 3.0
- CHLD 73 Infant/Toddler Care and Development 3.0 CSU

Total Units: 23.0 - 25.0

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 15 Fashion and Identity 3.0 CSU
- FASH 17 Textiles 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 30 Fashion Design 3.0

Recommended Electives:

- FASH 24 Fashion Patternmaking by Computer
- FASH 26 Fashion Computer-Assisted Design
- FASH 35 Special Topics in Fashion
- FASH 81 Work Experience
- FASH 90 Field Studies
- FASH 91 Field Studies - New York
- FASH 92 Field Studies - Fashion Capitals

Total Units: 18.0

Fashion Design - Level II

Consumer Science and Design Technologies
Certificate L1389

The Fashion Design - Level II Certificate builds upon the Level I Certificate to provide students with intermediate skills that will enhance their Fashion Design careers. Students will have a strategic view of historic costume research, and textile attributes and characteristics. Students will be exposed to additional categories and classifications of apparel and will further research and design products for divergent target markets. Students will prepare professional portfolios to strengthen career perspectives. Completion of the Fashion Design - Level II Certificate will lead to new opportunities and provide students with a solid foundation upon which to build a career.

Requirements for the Certificate

Required courses:

Level I as follows:

- FASH 8 Introduction to Fashion 3.0 CSU
- FASH 10 Clothing Construction I 3.0 CSU
- FASH 15 Fashion and Identity 3.0 CSU
- FASH 17 Textiles 3.0
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 30 Fashion Design 3.0

Plus the following courses:

- FASH 9 History of Costume and Design 3.0 CSU
- FASH 12 Clothing Construction II 3.0
- FASH 20 Illustration for Fashion and Costume Design 3.0
- FASH 21 Patternmaking I 3.0
- FASH 22 Fashion Design by Draping 3.0
- FASH 23 Patternmaking II 3.0
- FASH 24 Fashion Patternmaking by Computer 3.0
- FASH 31 Fashion Design 3.0 and Product Development II
- FASH 32 Fashion Design 3.0 and Product Development III

Recommended Electives:

- FASH 26 Fashion Computer-Assisted Design
- FASH 35 Special Topics in Fashion
- FASH 81 Work Experience
- FASH 90 Field Studies
- FASH 91 Field Studies - New York
- FASH 92 Field Studies - Fashion Capitals

Total Units: 45.0

Fashion Merchandising - Level I

Consumer Science and Design Technologies
Certificate L1303

The Fashion Merchandising - Level I Certificate is designated 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 coursework (18 units) as follows:

Requirements for the Certificate

Required courses:

Level I as follows:

- FASH 8 Introduction to Fashion 3.0 CSU
- FASH 10 Clothing Construction I 3.0 CSU
- FASH 15 Fashion and Identity 3.0 CSU
- FASH 17 Textiles 3.0 CSU, UC
- FASH 25 Fashion Computer-Assisted Drawing 3.0
- FASH 30 Fashion Design and Product Development I

Recommended Electives:

- FASH 26 Fashion Computer-Assisted Design
- FASH 35 Special Topics in Fashion
- FASH 81 Work Experience
- FASH 90 Field Studies
- FASH 91 Field Studies - New York
- FASH 92 Field Studies - Fashion Capitals

Total Units: 18.0

Fashion Merchandising - Level II

Consumer Science and Design Technologies
Certificate L1305

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 II coursework (18 units) as follows:

Requirements for the Certificate

Required courses:

Level II as follows:

- FASH 9 History of Costume and Design 3.0 CSU
- FASH 12 Clothing Construction II 3.0
- FASH 20 Illustration for Fashion and Costume Design 3.0
- FASH 21 Patternmaking I 3.0
- FASH 22 Fashion Design by Draping 3.0
- FASH 23 Patternmaking II 3.0
- FASH 24 Fashion Patternmaking by Computer 3.0
- FASH 31 Fashion Design 3.0 and Product Development II
- FASH 32 Fashion Design 3.0 and Product Development III

Recommended Electives:

- FASH 26 Fashion Computer-Assisted Design
- FASH 35 Special Topics in Fashion
- FASH 81 Work Experience
- FASH 90 Field Studies
- FASH 91 Field Studies - New York
- FASH 92 Field Studies - Fashion Capitals
Programs of Study Leading to a Certificate

Plus the following courses:
Level II as follows:
FASH 9 History of Costume and Design 3.0 CSU
FASH 62 Retail Store Management and Merchandising 3.0 CSU
or
BUS 50 Retail Store Management and Merchandising 3.0 CSU
or
BUS 53 Advertising and Promotion 3.0 CSU
FASH 63 Visual Merchandising Display 3.0 CSU
Total Units 30.0

Recommended Electives:
FASH 81 Work Experience in Fashion
FASH 90 Field Studies
FASH 91 Field Studies - New York
FASH 92 Field Studies - Fashion Capitals

Fire Technology
Fire Technology Department
Certificate L2103
The Fire Science Certificate 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 Certificate
Required courses:
FIRE 6 Basic Fire Academy 14.5
PE-F 53 Physical Training 2.5 CSU
for the Basic Fire Academy
Total Units 27.5 - 38.0

Recommended Electives:
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

Horse Ranch Management
Agricultural Sciences Department
Certificate L0102
This certificate program is designed to give students basic skills on horse ranches and agriculture sales and services. All courses are applicable for degree requirements.

Requirements for the Certificate
Required courses:
AGAB 20 Microcomputer Applications in Agriculture 3.0 CSU
AGAG 59 Work Experience in Agriculture 1.0 - 4.0 CSU
AGAN 2 Animal Nutrition 3.0 CSU
AGAM 94 Animal Breeding 3.0 CSU
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 96 Animal Sanitation 3.0 CSU
AGLI 97 Artificial Insemination of Livestock 2.0
Total Units 21.0 - 24.0

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 53 Dining Room Service 3.0 CSU
HRM 56 Management of Hospitality Personnel and Operations 3.0 CSU
HRM 64 Hospitality Financial Accounting I 3.0 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 20.5

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 food service establishment.

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
Total Units 19.0

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:
CHLD 1 Child, Family and Community 3.0 CSU
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 3.0 CSU
CHLD 10H Child Growth and Development - Honors 3.0 CSU
CHLD 73 Infant/Toddler Care and Development 3.0 CSU
CHLD 85 Infants At Risk 3.0
PLUS
Select four (4) courses from:
CHLD 50 Multicultural Education: Anti-Bias Perspective 3.0
CHLD 61 Language Arts & Art Media for Young Children 3.0
CHLD 62 Music and Motor Development for Young Children 3.0
CHLD 64 Health, Safety and Nutrition for Young Children 3.0
CHLD 72 Teacher, Parent and Child Relationships 3.0
Plus Total Units 30.0
Interior Design: Level II
Consumer Science and Design Technologies
Certificate T0304

The Interior Design: Level II Certificate builds upon the Level I coursework to provide students with intermediate skills that will lead to a career in interior design. There is a focus on design process including drawing and presentations skills, model-making, sketching, computer applications, the planning of space and studio design. Students will prepare professional portfolios to strengthen career perspectives. This certificate may aid in the student’s search for an entry-level position as an assistant to a designer, library coordinator, or sales personnel for interior design products.

Requirements for the Certificate

Required courses:
- Completion of the Interior Design: Level I coursework as follows:
  - ID 10 Introduction to Interior Design 3.0 CSU
  - ID 12 Interior Materials and Products 3.0 CSU
  - ID 14 History of Furniture 3.0 CSU
  - ID 20 Color and Design Theory I 3.0
  - ID 21 Color and Design Theory II 3.0
  - ID 22 Design Drawing for Interior Design 3.0
  - ID 23 Computer Aided Drawing 3.0
  - ID 24 History of Furniture 3.0 CSU
  - ID 26 Space Planning 3.0
  - ID 27 Rapid Visualization 3.0
  - ID 29 Interior Design Studio I 3.0
  - ID 31 Building Systems 3.0 CSU
  - ID 32 Lighting Design 3.0
  - ID 34 Computer Aided Drawing for Interior Design II 3.0
  - ID 35 Professional Practices for Interior Design 3.0
  - ID 37 Business Practices 3.0 CSU
  - ID 38 Internship in Interior Design (1 – 3 unit course, 2 units required)
  - ID 39 Interior Design Studio II 3.0 CSU
  
Elective courses:
- ID 50 Interior Design Specialized Studio 3.0
- ID 52 Independent Studies in Interior Design 3.0

Total Units 33.0

Interior Design: Level III
Consumer Science and Design Technologies
Certificate T0305

The Interior Design: Level III Certificate builds upon the Level II coursework to provide students with advanced skills that will enhance their Interior Design careers. There is a focus on building systems, lighting, advanced computer applications, business practices and studio design. Students will prepare professional portfolios to strengthen career perspectives. This certificate may aid in the student’s search for an intermediate position as an assistant to a designer, library coordinator, or sales personnel for interior design products.

Requirements for the Certificate

Required courses:
- Completion of the Interior Design: Level II coursework as follows:
  - ID 20 Color and Design Theory I 3.0
  - ID 21 Color and Design Theory II 3.0
  - ID 22 Design Drawing for Interior Design 3.0
  - ID 23 Computer Aided Drawing 3.0
  - ID 24 History of Furniture 3.0 CSU
  - ID 26 Space Planning 3.0
  - ID 27 Rapid Visualization 3.0
  - ID 29 Interior Design Studio I 3.0
  - ID 31 Building Systems 3.0 CSU
  - ID 32 Lighting Design 3.0
  - ID 34 Computer Aided Drawing for Interior Design II 3.0
  - ID 35 Professional Practices for Interior Design 3.0
  - ID 37 Business Practices 3.0 CSU
  - ID 38 Internship in Interior Design (1 – 3 unit course, 2 units required)
  - ID 39 Interior Design Studio II 3.0 CSU
  
Elective courses:
- ID 50 Interior Design Specialized Studio 3.0
- ID 52 Independent Studies in Interior Design 3.0

Total Units 50.0

Interior Design Kitchen and Bath Specialization
Consumer Science and Design Technologies
Certificate T0306

The Kitchen and Bath Specialization coursework builds upon the Level III Certificate to provide students with specialized skills in the area of Kitchen and Bath Design and is accredited by the national Kitchen and Bath Association. Students will strengthen career perspectives and develop work to incorporate into a professional portfolio. This certificate may aid in the student’s search for an intermediate position as an assistant to a Kitchen and Bath Designer. Students completing this certificate and meeting the eligibility requirements will quality to sit for the academic portion of the Certified Kitchen Designer (CKD) and Certified Bath Designer (CBD) upon graduation to earn the Associate Kitchen and Bath Designer (AKBD) designation.

Requirements for the Certificate

Completion of the Interior Design: Level II coursework as follows:
- ID 20 Color and Design Theory I 3.0
- ID 21 Color and Design Theory II 3.0
- ID 22 Design Drawing for Interior Design 3.0
- ID 23 Computer Aided Drawing 3.0
- ID 24 History of Furniture 3.0 CSU
- ID 26 Space Planning 3.0
- ID 27 Rapid Visualization 3.0
- ID 29 Interior Design Studio I 3.0
- ID 31 Building Systems 3.0 CSU
- ID 32 Lighting Design 3.0
- ID 34 Computer Aided Drawing for Interior Design II 3.0
- ID 35 Professional Practices for Interior Design 3.0
- ID 37 Business Practices 3.0 CSU
- ID 38 Internship in Interior Design (1 – 3 unit course, 2 units required)
- ID 39 Interior Design Studio II 3.0 CSU

And completion of the required Interior Design: Level III coursework as follows:
- ID 10 Introduction to Interior Design 3.0 CSU
- ID 12 Interior Materials and Products 3.0 CSU
- ID 14 History of Furniture 3.0 CSU
- ID 14 History of Furniture and Decorative Arts 3.0
- ID 26 Space Planning 3.0
- ID 27 Rapid Visualization 3.0
- ID 29 Interior Design Studio I 3.0
- ID 30 Kitchen and Bath Specialization coursework 3.0
- ID 31 Building Systems 3.0 CSU
- ID 32 Lighting Design 3.0
- ID 34 Computer Aided Drawing for Interior Design II 3.0
- ID 35 Professional Practices for Interior Design 3.0
- ID 37 Business Practices 3.0 CSU
- ID 38 Internship in Interior Design (2 units)
- ID 39 Interior Design Studio II 3.0 CSU

Elective courses:
- ID 50 Interior Design Specialized Studio 3.0
- ID 52 Independent Studies in Interior Design 3.0

Total Units 50.0

Intermediate Kitchen and Bath Design Certificate T0306

The Kitchen and Bath Specialization coursework builds upon the Level III Certificate to provide students with specialized skills in the area of Kitchen and Bath Design and is accredited by the national Kitchen and Bath Association. Students will strengthen career perspectives and develop work to incorporate into a professional portfolio. This certificate may aid in the student’s search for an intermediate position as an assistant to a Kitchen and Bath Designer. Students completing this certificate and meeting the eligibility requirements will quality to sit for the academic portion of the Certified Kitchen Designer (CKD) and Certified Bath Designer (CBD) upon graduation to earn the Associate Kitchen and Bath Designer (AKBD) designation.

Programs of Study Leading to a Certificate

AGOR 1 Horticultural Science 3.0 CSU
AGOR 13 Landscape Design 3.0 CSU
AGOR 15 Interior Landscaping 3.0 CSU
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 3.0 CSU
AGOR 64 Landscape Irrigation - Design and Installation 3.0 CSU
AGOR 65 Drip and Low Volume Irrigation Systems 3.0 CSU

Total Units 24.0

Programs of Study Leading to a Certificate

AGOR 1 Horticultural Science 3.0 CSU
AGOR 13 Landscape Design 3.0 CSU
AGOR 15 Interior Landscaping 3.0 CSU
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 3.0 CSU
AGOR 64 Landscape Irrigation - Design and Installation 3.0 CSU
AGOR 65 Drip and Low Volume Irrigation Systems 3.0 CSU

Total Units 24.0
# Programs of Study Leading to a Certificate

## Landscape and Park Maintenance
### Agricultural Sciences Department
**Certificate T0108**

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 13</td>
<td>Landscape Design 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous 3.0 CSU,UC</td>
</tr>
<tr>
<td>AGOR 30</td>
<td>Ornamental Plants 3.0 CSU,UC</td>
</tr>
<tr>
<td>AGOR 39</td>
<td>Turf Grass Production 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 40</td>
<td>Sports Turf Management 3.0</td>
</tr>
<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 63</td>
<td>Landscape Construction 3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units:** **30.0**

## Landscape Design and Construction
### Agricultural Sciences Department
**Certificate L0109**

This certificate program is designed to give students basic skills needed in employment for a landscape contractor. All courses are applicable for degree requirements.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science 3.0 CSU</td>
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<tr>
<td>AGOR 13</td>
<td>Landscape Design 3.0 CSU</td>
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<td>Integrated Pest Management 3.0 CSU</td>
</tr>
<tr>
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<td>Ornamental Plants - Herbaceous 3.0 CSU,UC</td>
</tr>
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<td>Turf Grass Production 3.0 CSU</td>
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<td>Sports Turf Management 3.0</td>
</tr>
<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 63</td>
<td>Landscape Construction 3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units:** **30.0**

## Landscape Equipment Technology
### Agricultural Sciences Department
**Certificate T0117**

This certificate program is designed to give students basic skills to seek employment in equipment repair, golf courses, rental yards, and small equipment repair shops. All courses are applicable for degree requirements.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 51</td>
<td>Tractor and Landscape 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 52</td>
<td>Equipment Operations 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 53</td>
<td>Small Engine Repair I 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 54</td>
<td>Small Engine Repair II 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 55</td>
<td>Diesel Engine Repair 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 56</td>
<td>Engine Diagnostics 3.0 CSU</td>
</tr>
<tr>
<td>AGOR 57</td>
<td>Power Train Repair 3.0</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction 3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units:** **27.0**

### Law Enforcement
#### Public Services Department
**Certificate T2102**

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**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 1</td>
<td>The Administration of Justice 3.0 CSU,UC</td>
</tr>
<tr>
<td>ADJU 2</td>
<td>Principles and Procedures of the Justice System 3.0 CSU</td>
</tr>
<tr>
<td>ADJU 3</td>
<td>Concepts of Criminal Law 3.0 CSU,UC</td>
</tr>
<tr>
<td>ADJU 4</td>
<td>Legal Aspects of Evidence 3.0 CSU</td>
</tr>
<tr>
<td>ADJU 5</td>
<td>Community Relations 3.0 CSU,UC</td>
</tr>
<tr>
<td>ADJU 6</td>
<td>Administration of Justice Report Writing 3.0</td>
</tr>
<tr>
<td>ADJU 7</td>
<td>The Violent Offender 3.0</td>
</tr>
</tbody>
</table>

**Total Units:** **36.0**

### Livestock Management
### Agricultural Sciences Department
**Certificate T0103**

This certificate program is designed to give students basic skills in livestock management for employment opportunities on farms, ranches, and agriculture sales and services. All courses are applicable for degree requirements.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAN 1</td>
<td>Animal Science 3.0 CSU,UC</td>
</tr>
<tr>
<td>AGAN 2</td>
<td>Animal Nutrition 3.0 CSU</td>
</tr>
<tr>
<td>AGAN 4</td>
<td>Animal Breeding 3.0</td>
</tr>
<tr>
<td>AGLI 14</td>
<td>Swine Production 3.0 CSU</td>
</tr>
<tr>
<td>AGLI 16</td>
<td>Horse Production 4.0 CSU,UC</td>
</tr>
<tr>
<td>AGLI 17</td>
<td>Sheep Production 3.0 CSU</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Beef Production 3.0 CSU</td>
</tr>
<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection 2.0 CSU,UC</td>
</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control 3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units:** **42.0**

### Recommended Electives:
- PE-F 30 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

###丛书

**Public Services Department**

#### Law Enforcement

**Certificate T2102**

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**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 1</td>
<td>The Administration 3.0 CSU,UC</td>
</tr>
<tr>
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<td>Principles and Procedures 3.0 CSU</td>
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</tr>
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<td>Legal Aspects of Evidence 3.0 CSU</td>
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<td>Administration of Justice Report Writing 3.0</td>
</tr>
<tr>
<td>ADJU 7</td>
<td>The Violent Offender 3.0</td>
</tr>
</tbody>
</table>

**Total Units:** **36.0**

### Livestock Management
### Agricultural Sciences Department
**Certificate T0103**

This certificate program is designed to give students basic skills in livestock management for employment opportunities on farms, ranches, and agriculture sales and services. All courses are applicable for degree requirements.

**Requirements for the Certificate**

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</tr>
<tr>
<td>AGLI 96</td>
<td>Animal Sanitation and Disease Control 3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units:** **42.0**

### Recommended Electives:
- PE-F 30 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
### Manufacturing Technology

**Aircraft Maintenance Tech & Manufacturing Dept.**

**Certificate T0918**

The primary purpose of this program is to emphasize the manipulative skills required to enter the field of machine metal worker, machine operator, production machinist, mechanical technician, or machinist.

**Requirements for the Certificate**

**Required courses:**

- MFG 10  Mathematics and Blueprint  3.0  Reading for Manufacturing
- MFG 11  Manufacturing Processes I  2.0  CSU
- MFG 12  Manufacturing Processes II  2.0  CSU
- 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 18  MasterCAM I  2.0  CSU
- MFG 18B  MasterCAM II  2.0  CSU
- MFG 29  SurfCAM I  2.0  CSU
- MFG 29B  SurfCAM II  2.0  CSU
- MFG 65  Manual Computerized Numerical Control (CNC) Programming  2.0 CSU

**PLUS**

- Select two (2) courses from:
  - MFG 25  Advanced Parametric Solid Modeling for Manufacturing  2.0
  - MFG 27  AutoCAD Inventor  2.0
  - WELD 40  Introduction to Welding  2.0  CSU

| Total Units | 27.0 |

### Mental Health Technology

**Psychiatric Technician**

**Certificate T1279**

Upon completion of the required courses, a Certificate in Psychiatric Technician will be awarded. In addition, it prepares the student to take the California State Board Examination for Psychiatric Technicians.

**Requirements for the Certificate**

**Required courses:**

- MENT 40  Interviewing and Counseling  3.0
- MENT 56  Medical-Surgical Nursing for Psychiatric Technicians  9.0
- MENT 56L  Clinical Experience  4.0
- MENT 58C  Advanced Medical-Surgical Nursing and Pharmacology for PT  4.0
- MENT 58L  Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical Introduction to Psychiatric Technology  1.5
- MENT 70L  Introduction to Psychiatric Technology Clinical Technicians  2.0
- MENT 72L  Nursing Care of the Developmentally Disabled Person  7.0
- MENT 72LC  Nursing Care of the Developmentally Disabled Person - Clinical Psychiatric Nursing  5.5
- MENT 73T  Psychiatric Nursing for Psychiatric Technicians Clinical  6.0
- PSYC 1A  Introduction to Psychology  3.0  CSU,UC
- PSYC 1AH  Introduction to Psychology - Honors 3.0  CSU,UC

| Total Units | 51.0 |

**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:

- 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.)
- Be 18 years of age.
- File a college application and be accepted as a student at Mt. San Antonio College.
- Submit an application for the Mental Health/Psychiatric Technician Program 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.)
- Complete the required English Placement Test (AWE). Eligibility for ENGL 6B 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 schedule a date 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.

- 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.
- 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 'v' and 'v', if the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.

Select two (2) courses from:

- MENT 40  Interviewing and Counseling  3.0
- MENT 56  Medical-Surgical Nursing for Psychiatric Technicians  9.0
- MENT 56L  Clinical Experience  4.0
- MENT 58C  Advanced Medical-Surgical Nursing and Pharmacology for PT  4.0
- MENT 58L  Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical Introduction to Psychiatric Technology  1.5
- MENT 70L  Introduction to Psychiatric Technology Clinical Technicians  2.0
- MENT 72L  Nursing Care of the Developmentally Disabled Person  7.0
- MENT 72LC  Nursing Care of the Developmentally Disabled Person - Clinical Psychiatric Nursing  5.5
- MENT 73T  Psychiatric Nursing for Psychiatric Technicians Clinical  6.0
- PSYC 1A  Introduction to Psychology  3.0  CSU,UC
- PSYC 1AH  Introduction to Psychology - Honors 3.0  CSU,UC

| Total Units | 51.0 |

### Marketing Management

**Business Administration Department**

**Certificate L0510**

**Requirements for the Certificate**

**Required courses:**

- BUSS 20  Principles of Business  3.0  CSU,UC
- BUSS 61  Business Organization  3.0  CSU
- BUSS 35  Professional Selling  3.0  CSU
- BUSS 36  Principles of Marketing  3.0  CSU
- BUSS 50  Retail Store Management and Merchandising  3.0
- BUSS 70  International Marketing Concepts  3.0
- BUSS 79  Work Experience in Marketing Management  1.0

| Total Units | 25.0 |

- 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.)
- Be 18 years of age.
- File a college application and be accepted as a student at Mt. San Antonio College.
- Submit an application for the Mental Health/Psychiatric Technician Program 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 schedule a date 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.

- 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.
- 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 'v' and 'v', if the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.

Select two (2) courses from:

- MENT 40  Interviewing and Counseling  3.0
- MENT 56  Medical-Surgical Nursing for Psychiatric Technicians  9.0
- MENT 56L  Clinical Experience  4.0
- MENT 58C  Advanced Medical-Surgical Nursing and Pharmacology for PT  4.0
- MENT 58L  Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical Introduction to Psychiatric Technology  1.5
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- MENT 72LC  Nursing Care of the Developmentally Disabled Person - Clinical Psychiatric Nursing  5.5
- MENT 73T  Psychiatric Nursing for Psychiatric Technicians Clinical  6.0
- PSYC 1A  Introduction to Psychology  3.0  CSU,UC
- PSYC 1AH  Introduction to Psychology - Honors 3.0  CSU,UC

| Total Units | 51.0 |

### Programs of Study Leading to a Certificate

- 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 91780-1399
- 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 the candidate 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 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)
Programs of Study Leading to a Certificate

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 must be able to speak, write and read English to complete classes successfully and to ensure patient safety.

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: | 
| CISB 13 Microcomputer Applications | 4.0 CSU |
| or | 
| CISN 21 Windows Operating System | 4.0 CSU |

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 prepare students 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

Total Units 27.0

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 Landscape Irrigation Systems Management 3.0
AGOR 75 Urban Arboriculture 3.0

Total Units 30.0

Total Units 37.0

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 Photoshop Imagery 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 14 Commercial Lighting 3.0
PHOT 16 Fashion Photography 3.0
PHOT 17 Photocommunication 3.0
PHOT 20 Color Photography 3.0
PHOT 28 Photography Portfolio Development 3.0
PHOT 29 Studio Business Practices for Commercial Artists 3.0
PHOT 30 Commercial and Illustrative Photography 3.0

Recommended Electives:
AHS 1 Understanding the Visual Arts 3.0
ARTB 1 Understanding the Visual Arts 3.0
PHOT 1 Laboratory Studies: Black and White Photography 1.0
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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Grade</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSB 11</td>
<td>Computer Information Systems</td>
<td>3.5</td>
<td>CSU,UC</td>
<td></td>
</tr>
<tr>
<td>CSB 11</td>
<td>Database Management</td>
<td>4.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>CISM 11</td>
<td>Systems Analysis and Design</td>
<td>3.5</td>
<td>CSU,UC</td>
<td></td>
</tr>
<tr>
<td>CSN 21</td>
<td>Windows Operating System</td>
<td>4.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>CSP 31</td>
<td>Programming in C++</td>
<td>4.0</td>
<td>CSU,UC</td>
<td></td>
</tr>
<tr>
<td>CSP 34</td>
<td>Advanced C++ Programming</td>
<td>4.0</td>
<td>CSU,UC</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>19.0</strong></td>
<td></td>
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</tr>
</tbody>
</table>

### Programming in Visual Basic

**Computer Information Systems Department**
**Certificate L0789**
This certificate is intended to prepare students to use the Visual Basic language to develop graphical user interfaces and client/server applications.

**Requirements for the Certificate**

<table>
<thead>
<tr>
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<tr>
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<td>CSU,UC</td>
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<td>CSB 11</td>
<td>Database Management</td>
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<td>CISM 11</td>
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<td>3.5</td>
<td>CSU,UC</td>
<td></td>
</tr>
<tr>
<td>CSP 11</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
<td>CSU,UC</td>
<td></td>
</tr>
<tr>
<td>CSP 14</td>
<td>Advanced Visual Basic</td>
<td>4.0</td>
<td>CSU,UC</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>19.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Radio Broadcasting:

**Behind-the-Scenes Commercial and Entertainment Arts Certificate T0666**

This Behind-the-Scenes Radio Broadcasting Certificate is designed to prepare students for careers in the non-performance aspects of the broadcasting industry. The program offers a balanced category of classes preparing students for both studio production and the business aspects of a commercial radio station, Internet, and satellite broadcast facilities. Emphasis is placed on solid production skills, creative applications, copywriting, studio producing, promotions, marketing and understanding Federal Communication Commission rules and laws to meet employment opportunities for radio stations, production studios, syndication companies and audio studios. Students will demonstrate an understanding of the production process from the conceptualization phase to the creation of a marketable quality product. Students will demonstrate acquired skills through the creation of various demo-reel pieces for presentation in a professional employment setting. Equipment and software used are industry standard and course content is driven by industry needs. Opportunities available after completion of this program include, but are not limited to, production for radio, commercial voice-overs and syndicated shows, commercial copywriting, station promotions and marketing and show producer.

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Grade</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-TV 01</td>
<td>Introduction to Broadcasting</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
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<tr>
<td>R-TV 09</td>
<td>Broadcast Sales and Promotion</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 10</td>
<td>Radio Management</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 11A</td>
<td>Beginning Radio Production</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 11B</td>
<td>Advanced Radio Production</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 15</td>
<td>Broadcast Business Practices</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 96</td>
<td>Campus Radio Station Lab</td>
<td>1.0 - 2.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 97A</td>
<td>Radio/Entertainment Industry Seminar</td>
<td>1.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 97B</td>
<td>Radio/Entertainment Industry Internship</td>
<td>1.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>19.0</strong></td>
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<tr>
<td><strong>PLUS</strong></td>
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<td></td>
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<tr>
<td>R-TV 12</td>
<td>Commercial Copywriting</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 26</td>
<td>Legal Issues in Entertainment Law</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 31</td>
<td>History of Radio DJs</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 32</td>
<td>R-TV Internet Applications</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
</tbody>
</table>

### Radio Broadcasting:

**On-the-Air Commercial and Entertainment Arts Certificate T0655**

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Grade</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-TV 01</td>
<td>Introduction to Broadcasting</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 02A</td>
<td>On-Air Personality Development</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
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<tr>
<td>R-TV 05</td>
<td>Radio-TV Personality Development - Spanish Market</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 07A</td>
<td>Beginning Commercial Voice-Overs</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
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<tr>
<td>R-TV 11A</td>
<td>Beginning Radio Production</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 11B</td>
<td>Advanced Radio Production</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>R-TV 15</td>
<td>Broadcast Business Practices</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
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<tr>
<td>R-TV 96</td>
<td>Campus Radio Station Lab</td>
<td>1.0 - 2.0</td>
<td>CSU</td>
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<tr>
<td>R-TV 97A</td>
<td>Radio/Entertainment Industry Seminar</td>
<td>1.0</td>
<td>CSU</td>
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<tr>
<td>R-TV 97B</td>
<td>Radio/Entertainment Industry Internship</td>
<td>1.0</td>
<td>CSU</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>19.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Grade</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSR 50</td>
<td>Real Estate Principles</td>
<td>3.0</td>
<td>CSU</td>
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<tr>
<td>BUSR 51</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
<td>CSU</td>
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<tr>
<td>BUSR 52</td>
<td>Real Estate Practice</td>
<td>3.0</td>
<td>CSU</td>
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<td>BUSR 52D</td>
<td>Real Estate Practice Work Experience</td>
<td>3.0</td>
<td>CSU</td>
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<tr>
<td>BUSR 53</td>
<td>Real Estate Finance</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
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<tr>
<td>BUSR 81</td>
<td>Appraisal: Principles and Procedures</td>
<td>3.5</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td><strong>PLUS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUSA 11</td>
<td>Fundamentals of Accounting</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
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<tr>
<td>BUSR 55</td>
<td>Real Estate Economics</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>BUSR 57</td>
<td>Income Tax Aspects</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>BUSR 59</td>
<td>Real Estate Property Management</td>
<td>3.0</td>
<td>CSU</td>
<td></td>
</tr>
<tr>
<td>BUSR 76</td>
<td>Escrow Procedures I</td>
<td>3.0</td>
<td>CSU</td>
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<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>18.5</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
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 81 Appraisal: Principles and Procedures 3.5
and Procedures
BUSR 82 Uniform Standards 1.0
of Professional Appraisal Practice
BUSR 83 Residential Appraisal 3.5
BUSR 84 Residential Appraisal: Case Studies 2.5
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 53 Real Estate Finance 3.0
BUSR 55 Real Estate Economics 3.0
BUSR 57 Income Tax Aspects 3.0
of Real Estate Investments
BUSR 59 Real Estate Property Management 3.0
BUSR 76 Escrow Procedures I 3.0
CSB 15 Microcomputer Applications 4.0 CSU,UC
INSF 70 Elements of Construction 3.0 CSU
Total Units 22.5 - 23.5

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 5 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 CSU,UC
CHLD 5 Principles/Practices in Child Development Programs 3.0 CSU
PLUS
Select three (3) courses from:
ENGL 64 Writing Effective Sentences 1.0
ENGL 65 Grammar Review 1.0
LIT 40 Children’s Literature 3.0 CSU
PLUS
Select three (3) units from:
MATH 50 Pre-Algebra 3.0
MATH 50 Pre-Algebra 3.0
Total Units 30.0 - 33.0

Sign Language/Interpreting
Sign Language Department
Certificate T0801
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 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.

Requirements for the Certificate
Required courses:
SIGN 104 American Sign Language 3, 4.0
SIGN 105 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 223 Principles of Interpreting 3.0 CSU
SIGN 225 Ethical Decision Making for Interpreters 2.0
SIGN 227 Cognitive Processing for Interpreters 4.0
SIGN 231 Interpreting 4.0
SIGN 232 Advanced Interpreting 4.0
SIGN 239 Practicum 1.0
PLUS
Select three (3) courses from:
SIGN 99 Special Projects 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
SL 2 Linked Service Learning 1.0 CSU
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 CSU
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,UC
AGOR 40 Sports Turf Management 3.0 CSU,UC
AGOR 50 Soil Science 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 CSU
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 CSU
R-TV 14 Media Aesthetics 3.0
R-TV 19A Beginning Television Production 3.0 CSU
R-TV 19B Advanced Television Production 3.0 CSU
R-TV 22 Editing for Film and Television 3.0
R-TV 100 Work Experience in Film and TV 2.0
Water Technology
Air Conditioning, Water & Welding Technologies
Certificate L0921
This program is designed to train students who wish to:
(1) seek 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

Web Design
Commercial and Entertainment Arts Department
Certificate L0618
This program is designed to provide students with a combination of design and technical skills necessary for entry-level employment as a Web page designer.

Requirements for the Certificate
Required courses:
ANIM 172 Motion Graphics 3.0  
ARTC 100 Graphic Design I 3.0  
ARTC 120 Graphic Design II 3.0  
ARTC 160 Typography 3.0  
ARTC 200 Web Design 3.0  
ARTC 220 Graphic Design IV 3.0  
ARTC 240 Multimedia Design 3.0  
ARTD 20 Design: Two Dimensional 3.0  
PHOT 4 Digital Cameras and Composition 1.0  
Total Units 25.0

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 Construction Fabrication and Welding 3.0  
WELD 81 Pipe and Tube Welding 3.0  
Total Units 27.0
Note: Any higher level welding courses may be substituted for WELD 40.

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, cutting and modification. 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 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 Construction Fabrication and 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.
### 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 gas tungsten 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 Construction Fabrication and 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.

### Welding - Semiautomatic Arc Welding

**Air Conditioning, Water & Welding Technologies**
Certificate T0933

Prepares students for entry-level employment as a licensed welder with additional skills development and theory in semiautomatic ARC welding. Coursework prepares students for industry licensing with emphasis on competencies required for certification in structural steel welding and specialty skills in semiautomatic 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 Construction Fabrication and Welding 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90B Semiautomatic Arc Welding 3.0

**Total Units** 30.0

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

### 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 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 72 Bookkeeping - Accounting 5.0
- BUSA 53 Ten-Key Calculations 2.0
- BUSA 81 Work Experience in Accounting 1.0
- BUSO 5 Business English 3.0
- BUSO 7 Using Microcomputers in Financial Accounting 1.0

**Plus the following courses:**
- 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
- BUSO 76 Using Microcomputers in Managerial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0

**Total Units** 14.0 - 15.0

### Accounting - Payroll

**Accounting and Management Department**
Certificate E0505

The Accounting - Payroll Certificate combines 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**

**Required courses:**
- Completion of Accounting-Bookkeeping Certificate as follows:
  - BUSA 7 Principles of Accounting 5.0 CSU, UC
  - BUSA 72 Bookkeeping - Accounting 5.0
  - BUSA 53 Ten-Key Calculations 2.0

**Total Units** 13.0

### Administrative Assistant - Level I

**Computer Information Systems Department**
Certificate E0516

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

**Requirements for the Certificate**

**Required courses:**
- BUSO 5 Business English 3.0
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- BUSO 25 Business Communications 3.0 CSU
- BUSO 7 Using Microcomputers 1.0
- BUSO 15 Microcomputer Applications 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSO 25 Business Communications 3.0
- BUSO 25 Business Communications 3.0

**Total Units** 14.0 - 15.0
Business: International - Level I
Accounting and Management Department
Certificate E0527
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
Required courses:
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 51 Principles of International Business 3.0 CSU
- BUSM 36 Principles of Marketing 3.0 CSU
Total Units 9.0

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

Business: Management - Level 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 gain exposure to the basics of current management practice, 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 many businesses.

Requirements for the Certificate
Required courses:
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 61 Business Organization 3.0 CSU
- BUSM 62 Human Resource Management 3.0 CSU
Total Units 9.0

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 I
Accounting and Management Department
Certificate E0550
Introductionary statement: This introductory certificate 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. This certificate may aid the student's search for an entry-level job in retail management.

Requirements for the Certificate
Required courses:
- BUSO 25 Business Communications 3.0 CSU
- BUSO 62 Retail Store Management and Merchandising 3.0 CSU
- BUSO 50 Retail Store Management and Merchandising 3.0 CSU
Total Units 10.0

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 I
Accounting and Management Department
Certificate E0529
Small Business has been described as the engine of change within the economy. The Business: Small Business Management - Level I Certificate exposes students to the fundamentals of managing and planning a small business. Upon completion students may qualify for an entry-level management position in a small business. Entrepreneurs may use this certificate as a means to plan and develop new business ventures.

Requirements for the Certificate
Required courses:
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 36 Principles of Marketing 3.0 CSU
Total Units 9.0

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: General - Level I
Child Development
Certificate E1326
The Children's Program Certificate: 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 certificate meets Title 22 education requirements for fully qualified teachers.

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

CIS Professional Certificate in C# Programming
Computer Information Systems Department
Certificate E0722
This certificate 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 Certificate
Required courses:
- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 31 Programming in C# 4.0
- CISP 41 Advanced Programming in C# 4.0
- CISP 44 Programming in C# - Honors 4.0
Total Units 14.0
## Programs of Study Leading to a Certificate

### CIS Professional Certificate in Database Management - Microcomputers
**Computer Information Systems Department Certificate 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 will prepare the student to work and manage data using a PC-based Database Management System. The program covers the major topics of the Microsoft MOUS certification exam for Access.

**Requirements for the Certificate**
**Required courses:**
- CISO 11 Database Management 4.0 CSU
- CISO 14 Advanced Database Management – Microsoft Access 4.0
- CISO 21 Database Management 4.0 – Microsoft SQL Server
- CISO 40 Database Design 3.0

**Total Units 15.0**

### CIS Professional Certificate in Object-Oriented Design & Programming
**Computer Information Systems Department Certificate E0723**
This certificate 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 Certificate**
**Required courses:**
- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 11 Programming in Visual Basic 4.0 CSU, UC
- CISP 21 Programming in Java 4.0 CSU, UC
- CISP 31 Programming in C++ 4.0 CSU, UC
- CISP 41 Programming in C# 4.0
- CISP 14 Advanced Visual Basic Programming 4.0 CSU, UC
- CISP 24 Advanced Java Programming 4.0
- CISP 34 Advanced C++ Programming 4.0 CSU, UC
- CISP 44 Advanced Programming in C# 4.0

**Total Units 10.0**

### CIS Professional Certificate in Windows Operating System Administration
**Computer Information Systems Department Certificate E0720**
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 skills to install, manage/ administer, and troubleshoot Microsoft Windows workstations and server operating system. The courses in this certificate cover the major topics of industry standard certification exams.

**Requirements for the Certificate**
**Required courses:**
- CISO 21 Windows Operating System 4.0 CSU
- CISO 24 Microsoft Network System Administration 4.0 CSU

**Total Units 8.0**

### 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 workstations, servers, and Local Area Networks using the Linux operating system. The certificate covers the major topics of an industry standard certification exam for Linux.

**Requirements for the Certificate**
**Required courses:**
- CISO 24 Linux Operating System 4.0 CSU
- CISO 34 LINUX Networking and Security 4.0 CSU
- CISO 31 Web Servers 4.0

**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 students to explain fundamental concepts of network security, identify network vulnerabilities and attacks, and use various protocol analyzers to detect network attack and troubleshoot network problems. Individual courses may assist students in preparing for related industry certification exams.

**Requirements for the Certificate**
**Required courses:**
- CISO 21 Network Vulnerabilities 4.0 CSU
- CISO 23 Network Analysis and NIDS 4.0 CSU
- CISO 25 Network Security and Firewalls 4.0 CSU
- CISO 27 Defending Computer Systems Hands-On 1.0

**Total Units 13.0**

### 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:**
- CISO 21 Database Management 4.0
- CISO 31 Database Management – Oracle 4.0
- CISO 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 write applications in C++ and Visual C++ and provide a basic understanding of Object-Oriented Design.

**Requirements for the Certificate**
**Required courses:**
- CISO 11 Database Management 4.0
- CISO 21 Database Management – Microsoft SQL Server 4.0
- CISO 31 Database Management – Oracle 4.0
- CISO 10 Principles of Object-Oriented Design 2.0
- CISO 31 Programming in C++ 4.0 CSU, UC
- CISO 34 Advanced C++ Programming 4.0 CSU, UC

**Total Units 14.0**
### CIS Professional Certificate in Java Programming
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 4.0 CSU Networking
- CISN 24 Windows Server Network Administration 4.0 CSU
- CISN 34 LINUX Networking and Security 4.0 CSU
- CISN 51 Cisco CCNA Networking and Routing 4.0 CSU

**Total Units:** 16.0

### 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:**
- CISD 11 Database Management 4.0 CSU – Microsoft Access
- CISD 31 Database Management - Oracle 4.0 CSU, UC
- CISP 10 Principles of Object-Oriented Design
- CISP 21 Programming in Java 4.0 CSU, UC
- CISP 24 Advanced Java Programming 4.0

**Total Units:** 14.0

### CIS Professional Certificate in Oracle 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:**
- CISP 10 Principles of Object-Oriented Programming 2.0
- CISP 11 Programming in Visual Basic 4.0 CSU, UC
- CISP 14 Advanced Visual Basic Programming 4.0 CSU, UC
- CISD 11 Database Management 4.0
- CISD 31 Database Management - Oracle 4.0 CSU, UC
- CISD 32 Oracle Forms and Reports 3.0
- CISD 40 Database Design 3.0

**Total Units:** 10.0

### 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, UC
- CISP 14 Advanced Visual Basic Programming 4.0 CSU, UC
- CISD 11 Database Management 4.0
- CISD 31 Database Management - Oracle 4.0 CSU, UC
- CISD 32 Oracle Forms and Reports 3.0
- CISD 40 Database Design 3.0

**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:**
- CISW 11 Internet Technologies 4.0 CSU
- CISW 24 Advanced Web Programming 4.0
- CISW 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 Officials 3.0 CSU, UC
- PE 34 Fitness for Living 3.0 CSU
- PE 44 Theory of Coaching 3.0 CSU
- PE 81 Work Experience for Coaching 2.0

**Total Units:** 11.0

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

### Computer Graphics Technology Proficiency
Commercial and Entertainment Arts Department Certificate E0312
The Proficiency Certificate provides students and professionals with a fast-track, 4-course training cluster covering the creation, editing, and application of digital imagery for personal use and interest, updating software skills, career preparation and applications, digital portfolios, or electronic publishing.

#### Requirements for the Certificate
**Required courses:**
- GRAP 8 Fundamentals of Digital Media 3.0
- GRAP 10 Photoshop Imagery 3.0
- GRAP 15 InDesign Graphics 3.0
- GRAP 16 Illustrator Graphics 3.0

**Total Units:** 12.0

**Recommended Electives:**
- GRAP 18 3D Graphics Imagery
- GRAP 20 Multimedia Graphics
Programs of Study Leading to a Certificate

Culinary Arts - Level I
Consumer Science and Design Technologies Certificate E1334
The Culinary Arts - Level I Certificate 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 1.0 CSU
- NF 20 Principles of Foods with Lab 3.0 CSU
- plus 3.0 units from:
  - HRM 55 Menu Planning 3.0 CSU
  - HRM 56 Catering 3.0 CSU
  - NF 50 Creative Foods 3.0
  - NF 52 Meal Management 3.0 CSU
- Total Units 14.5

Dance Teacher
Dance Department Certificate E0313
The Dance Teacher Certificate is intended to prepare students for careers as dance instructors in private dance studios, recreation centers, and K-12 dance programs. Focus is on the genres of Ballet, Jazz, and Modern Dance with pedagogical principles that can be applied to other dance forms. This certificate may aid the student's search for an entry-level job in the dance teaching world.

Requirements for the Certificate
Required courses:
- DNCE 50A Ballet II 0.5
- DNCE 64 Choreography 0.5
- DNCE 12B Modern II 0.5
- DNCE 14B Jazz II 0.5
- DNCE 24 Dance Production 1.0
- DNCE 33 Improvisation 0.5
- DNCE 35 Repertory 2.0
- DNCE 53A Alignment and Correctives I 0.5
- DN-T 20 History and Appreciation of Dance 3.0
- DN-T 34 Dance Teaching Methods 3.0
- PE 24 Kinesiology 2.0
- Total Units 14.0

Data Entry
Computer Information Systems 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 should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Certificate
Required courses:
- CB15 Microcomputer Applications 4.0 CSU, UC
- CSI 12 Intermediate Computer Keyboarding 3.0
- CSI 21 Data Entry 3.0
- Total Units 10.0

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 provides a series of courses 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. Electronic fundamentals (test instruments, basic electrical measurements, color-codes, schematic symbols, device outlines, etc.) are provided in the introductory courses. Complete surface mount technology (SMT) skills are taught with a culmination in the IPC7711/IPC7721 rework and repair of electronic assemblies certification.

Recertification is required every two years. ELEC 63 is a prep course for the recertification.

Requirements for the Certificate
Required courses:
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- or Electrical Fundamentals for Cable Installations 4.0
- ELEC 61 Electronic Assembly and Fabrication 3.0 CSU

- ELEC 62 Advanced Surface Mount Assembly and Rework 2.0
- Total Units 13.0

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.

Requirements for the Certificate
Required courses:
- ELEC 11 Technical Applications in Microprocessors 3.0 CSU
- or Microcomputer Applications 4.0 CSU, UC
- ESE 50 Electrical Fundamentals for Cable Installations 4.0
- EST 52 Fabrication Techniques 4.0
- 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 jobs.

Requirements for the Certificate
Required courses:
- EMT 90 Emergency Medical Technician I 10.5
- Total Units 10.5

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:
- Applicant must be 18 years of age upon entrance into the course.
- High school graduate or equivalent.
- File a College application and be accepted as a student at Mt. San Antonio College.
- 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 entry 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 EMT program, students must be able to speak, write and read English to ensure patient safety and to complete classes successfully.

<table>
<thead>
<tr>
<th>Programs of Study Leading to a Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fashion Design - Computer-Aided</strong></td>
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<tr>
<td>Consumer Science and Design Technologies</td>
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<tr>
<td>Certificate E1329</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>Requirements for the Certificate</strong></td>
</tr>
<tr>
<td>Required courses:</td>
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<tr>
<td>FASH 20 Illustration for Fashion</td>
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<tr>
<td>and Costume Design</td>
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<td>FASH 21 Pattermaking I</td>
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<td>FASH 24 Fashion Pattermaking by Computer</td>
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<tr>
<td>FASH 25 Fashion Computer Assisted</td>
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<tr>
<td>Drawing</td>
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<tr>
<td>FASH 26 Fashion Computer Assisted</td>
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<tr>
<td>Design</td>
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<tr>
<td>Total Units</td>
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</tbody>
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| **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  | 3.0  |
| Wellness                                 |     |
| 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  |
| **PE 40 Techniques of Teaching**         | 2.0  |
| Cardiovascular Exercise                  |     |
| PE 41 Techniques of Teaching**           | 2.0  |
| Weight Training                          |     |
| PE 85 Fitness Specialist Internship      | 1.0  |
| **Total Units**                          | 17.0 |

| **Gallery Design/Operation and Art**     |
| **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 exhibit. 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  |
| and Art Gallery Operation Work Experience: | (off campus) |
| ARTG 21A Introduction to Exhibition Production | 3.0  |
| ARTG 21B Intermediate Exhibition Production | 3.0  |
| ARTG 22A Exhibition Design and Art Gallery Operation Work Experience (on campus) | 1.0 |
| ARTG 22A Exhibition Design and Art Gallery Operation Work Experience (off campus) | 1.0 |
| ARTE 100 Graphic Design I                | 3.0  |
| **PLUS** Select one (1) course from:     |
| AHIS 5 History of Western Art: Renaissance Through Modern | 3.0  |
| AHS 6 History of Modern Art             | 3.0  |
| **Total Units**                          | 17.0 |

| **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  |
| HRM 52 Food Safety and Sanitation        | 1.5  |
| HRM 53 Dining Room Service Management    | 3.0  |
| **Total Units**                          | 7.5  |

| **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**       |
| Required courses:                          |
| HRM 51 Introduction to Hospitality        | 3.0  |
| HRM 53 Dining Room Service Management     | 3.0  |
| HRM 70 Introduction to Lodging            | 3.0  |
| HRM 91 Work Experience in Restaurant/Hospitality | 1.0  |
| **Total Units**                           | 10.0 |

| **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**       |
| Required courses:                          |
| HRM 51 Introduction to Hospitality        | 3.0  |
| HRM 52 Food Safety and Sanitation         | 1.5  |
| HRM 53 Dining Room Service Management     | 3.0  |
| HRM 91 Work Experience in Restaurant/Hospitality | 1.0  |
| **Total Units**                           | 8.5  |
PROGRAMS OF STUDY LEADING TO A CERTIFICATE

**Information and Operating Systems Security**

Computer Information Systems Department

Certificate E0371

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 and the steps necessary in order to select and deploy the needed to analyze the risk to one's network and systems and the steps necessary in order to select and deploy the

**Requirements for the Certificate**

**Required courses:**

- CISS 11 Practical Computer Security 2.0
- CISS 13 Principles of Information Systems Security 4.0
- CISS 15 Operating Systems Security 4.0

**Total Units** 10.0

**Introduction to Computer Information Technology**

Computer Information Systems Department

Certificate E0372

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**

**Required courses:**

- CISS 11 Computer Information Systems 3.5 CSU,UC
- CISS 15 Microcomputer Applications 4.0 CSU,UC
- CISSW 11 Internet Technologies 4.0 CSU

**Total Units** 11.5

**Interior Design: Level I**

Consumer Science and Design Technologies

Certificate B0303

Interior Design: Level I Certificate is designed to prepare students with a broad overview and solid foundation in the area of interior design and related fields. This certificate may lead to new opportunities and provide students with the groundwork upon which to build a career.

**Requirements for the Certificate**

**Required courses:**

- ID 10 Introduction to Interior Design 3.0 CSU
- ID 12 Interior Materials and Products 3.0 CSU
- ID 14 History of Furniture and Decorative Arts 3.0 CSU

**Total Units** 9.0

**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 the 30-Unit Option track is not a graduate of the Associate in 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.
4. 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.
5. A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
6. Eligibility for Math 51
7. High school graduation or GED or academic degree from an accredited college/university in the United States.
8. Possess a California Licensed Vocational Nurse license.
9. Criminal background check and drug screening must be completed prior to any patient contact.
10. A physical examination, including specific immunizations is required of candidates prior to the beginning of nursing classes.

**Requirements for the Certificate**

**Required courses:**

- NURS 5 Psychiatric Nursing 3.0 CSU
- NURS 8 Medical-Surgical Nursing 5.0 CSU
- NURS 9 Leadership in Nursing 1.0 CSU
- NURS 10 Medical-Surgical Nursing 4.0 CSU
- NURS 11 Preceptorship in Nursing 2.0 CSU

**Total Units** 15.0

**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;

**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)
- 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
### Requirements for the Certificate

**Required courses:**
- **MFG 11** Manufacturing Processes I 2.0 CSU
- **MFG 38** MasterCAM I 2.0 CSU
- **MFG 38B** MasterCAM II 2.0 CSU
- **MFG 85** Manual Computerized 2.0 Numerical Controls (CNC) Programming

**Total Units:** 8.0

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### 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
- Weekends, evenings, and holidays
- 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 must be able to speak, write and read English to ensure patient safety and to complete classes successfully.

### 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 10** Mathematics and Blueprint Reading for Manufacturing 3.0
- **MFG 11** Manual and CNC 2.0 CSU Manufacturing Essentials
- **MFG 12** Advanced Manufacturing Processes 2.0 CSU
- **MFG 85** Manual Computerized 2.0 CSU Numerical Control (CNC) Programming

**PLUS**

Select one (1) course from:
- **MFG 38** MasterCAM I 2.0 CSU
- **MFG 39** SurfCAM I 2.0 CSU

**Total Units:** 11.0

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### MasterCAM Aircraft Maintenance Technician & Manufacturing Technology Certificate E0927

This certificate provides a strong background in AutoDesk’s 2-D, 3-D, Mechanical Desktop, and Inventors packages and relates them to real-life industrial usage.

**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:** 10.0

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### 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. Coursework is designed to provide basic skills and knowledge necessary for 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

**Plus the following courses:**
- **NF 28** Cultural and Ethnic Foods 3.0 CSU,UC
- **CHLD 10** Child Growth and Development 3.0 CSU,UC
- **CHLD 64** Health, Safety and Nutrition of Young Children 3.0 CSU

**Total Units:** 16.5

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### 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 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
- **NF 10** Nutrition for Personal Health and Wellness 3.0 CSU

**Plus the following courses:**
- **NF 28** Cultural and Ethnic Foods 3.0 CSU,UC
- **CHLD 10** Child Growth and Development 3.0 CSU,UC
- **SPCH 26** Interpersonal Communications 3.0

**Total Units:** 17.5

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### 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
- **NF 10** Nutrition for Personal Health and Wellness 3.0 CSU

**Plus the following courses:**
- **NF 28** Cultural and Ethnic Foods 3.0 CSU,UC
- **CHLD 10** Child Growth and Development 3.0 CSU,UC
- **SPCH 26** Interpersonal Communications 3.0

**Total Units:** 17.5

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### 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:** 10.0
Pilates Professional Teacher Training Phase I: Mat and Reformer

Dance Department Certificate E0315

The Pilates Professional Teacher Training Certificate prepares students for careers as Pilates instructors/trainers in professional Pilates studios, dance studios, corporate fitness facilities, wellness centers, public/private health clubs and private training in a home studio. The Certificate curriculum meets the standards of the Pilates Method Alliance and includes lecture, self-study, and teaching hours. Phase I covers Pilates theory and the Mat and Reformer repertoire of exercises.

Requirements for the Certificate

Required courses:

- DN-T 27 Theory and Principles of Pilates 3.0
- DN-T 28 Functional Anatomy for Pilates 2.0
- DN-T 29 Teaching Pilates Mat Repertoire 1.5
- DN-T 30 Teaching Pilates - Reformer Repertoire 1.5
- DN-T 31 Pilates Teaching - Mat and Reformer 3.0
- PE 3 First Aid and CPR 3.0
- PE 24 Kinesiology 2.0

Plus select two (2) courses from:

- DNCE 40 Conditioning Through Dance 0.5
- DNCE 39B Alignment and Correctives II 0.5
- DNCE 40 Conditioning Through Dance 0.5
- PE-I 50A Yoga 0.5

Total Units 17.0

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 Turf Grass Production 3.0
- AGOR 39 Turf Grass Production and Management 3.0

Total Units 12.00

Radio Broadcasting Fundamental — On-Air

Commercial and Entertainment Arts Certificate E0537

This introductory certificate is designed to equip students with a goal to become On-Air professionals with the basic skills needed to qualify for an entry-level job in broadcasting. Students will examine a variety of careers in the radio industry as well as learn the fundamentals of on-air performance, production and gain actual experience through an internship either at one of the campus radio stations or a commercial radio station.

Requirements for the Certificate

Required courses:

- R-TV 01 Introduction to Broadcasting 3.0
- R-TV 02 On-Air Personality Development 3.0
- R-TV 07 Beginning Commercial Voice-Overs 3.0
- R-TV 11A Beginning Radio Production 3.0
- R-TV 96 Campus Radio Station Lab 1.0 - 2.0
- R-TV 97A Radio/Entertainment Industry Seminar 1.0
- R-TV 97B Radio/Entertainment Industry Internship 1.0

Total Units 15.0 - 16.0

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 Computerized Numerical Control (CNC) Programming 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

Total Units 8.0
section eight

Programs of Study Leading to an Associates in Arts Degree or an Associate in Science Degree
Programs Leading to an Associate degree

PROGRAMS OF STUDY LEADING TO AN ASSOCIATE DEGREE

Mt. San Antonio College offers both Associate in Science (A.S.) and Associate in Arts (A.A.) degrees. In general, the Associate in Science degrees are two-year occupational degrees that prepare students for a variety of career and technical fields. The Associate in 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 and with appropriate academic advising, students obtaining the Associate in Arts degree will find that they have a solid foundation for further postsecondary study should they wish to transfer at a later date.

ASSOCIATE IN ARTS TRANSFER DEGREES (AA-T)

Recent legislation requires all California Community Colleges create associate degree for transfer. To earn an “associate degree for transfer” a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGETC or CSU GE breadth, and a major or area of emphasis of at least 18 units. Students must have a minimum GPA of 2.0 to receive an associate degree for transfer. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements. At the time of this printing, the associate degrees for transfer were in the process of design and approval. Please see your counselor or educational advisor to obtain the most current associate degree information.

GENERAL REQUIREMENTS FOR AN ASSOCIATE DEGREE

Application for Graduation

The Application for Graduation is the student’s notification to Admissions and Records that he or she has completed all requirements and would like to receive a degree. The Application for Graduation form is available in the Admissions and Records office or online at www.mtsac.edu/students/admissions/gradp.html. Students should meet with a Counselor to discuss their Education Plan prior to submitting the Application for Graduation.

All students intending to receive a degree must file an 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.
- Winter: deadline to apply for winter graduation is the end of the ninth week of the fall 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 in Science degree shall be awarded to those graduates who majored in one of the occupational programs at Mt. San Antonio College. Students may be awarded both an Associate in Science degree and an Associate in Arts degree with the 60 units required for an Associate degree if they have met the requirements for both within the 60 units of 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. 12 units in residence and enrollment in the last semester, or
2. 45 units in residence if the last semester is not at Mt. SAC.

Associate in Arts in Liberal Arts & Sciences areas of emphasis.

The residency requirement for 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 in Science degree

Students must complete all required courses in an approved occupational major with a minimum grade of “C” in all courses. See pages 69-95 for listings of the Associate in Science degree majors.

Additional Requirements for the Associate in 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**
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 integrated physiological, social and psychological organisms. Courses fulfilling this requirement:

- provide selective consideration of human behavior, sexuality, nutrition, health, stress, implications of death and dying, and the relationship of people to the social and physical environment.

### GENERAL EDUCATION OUTCOMES (GEOS)

GEOS are statements that define the knowledge, skills, and perspectives acquired by students who satisfy our general education requirements. It is through the assessment of GEOS that the Mt. SAC general education curriculum will be evaluated for improvements. GEOS have been determined and will be assessed by faculty who teach courses within Areas A-E of our general education pattern. The GEOS for Mt. SAC can be found at: [www.mtsac.edu/instruction/general/geos_mtsac.html](http://www.mtsac.edu/instruction/general/geos_mtsac.html)

Adapted from CSU Executive Order S95 and Title 5 Section 40405.1
# Programs Leading to an Associate degree

## GENERAL EDUCATION REQUIREMENTS FOR 2011-2012

### AREA A:

**Communication in the English Language (6 units):**
- Select one (1) course from the following:
  - ENGL 1A: Freshman Composition
  - ENGL 1AH: Freshman Composition – Honors

**PHYSICAL SCIENCES**
- ASTR 5: Introduction to Astronomy
- ASTR 5H: Introduction to Astronomy – Honors
- ASTR 5L: Astronomical Observing Laboratory
- ASTR 7: Geology of the Solar System
- ASTR 8: Introduction to Stars, Galaxies, and the Universe

**LIFE SCIENCES**
- AGOR 1: Horticultural Science
- ANAT 10A: Introductory Human Anatomy
- ANAT 10B: Introductory Human Physiology
- ANAT 35: Human Anatomy
- ANAT 36: Human Physiology
- ANTH 1: Biological Anthropology
- ANTH 1H: Biological Anthropology – Honors
- ANTH 1L: Anthropological Laboratory
- BIOL 1: General Biology
- BIOL 2: Plant and Animal Biology
- BIOL 3: Ecology and Field Biology
- BIOL 4: Biology for Majors
- BIOL 4H: Biology for Majors – Honors
- BIOL 6: Humans and the Environment
- BIOL 6L: Humans and the Environment Laboratory
- BIOL 8: Cell and Molecular Biology
- BIOL 17: Neurobiology and Behavior
- BIOL 20: Marine Biology
- BIOL 21: Marine Biology Laboratory
- BIOL 24: Fundamentals of Genetics
- BIOL 24L: Fundamentals of Genetics Laboratory
- MCIR 1: Principles of Microbiology
- MCIR 22: Microbiology
- PSYC 1: Psychological Science

### AREA B:

**The Physical Universe and Life (3 units):**
- Select one (1) course from the Physical Sciences or Life Sciences:

**PHYSICAL SCIENCES**
- PHYS 1: Physics
- PHYS 2A: General Physics
- PHYS 2B: General Physics
- PHYS 4A: Engineering Physics
- PHYS 4B: Engineering Physics
- PHYS 4C: Engineering Physics

**LIFE SCIENCES**
- AGOR 1: Horticultural Science
- ANAT 10A: Introductory Human Anatomy
- ANAT 10B: Introductory Human Physiology
- ANAT 35: Human Anatomy
- ANAT 36: Human Physiology
- ANTH 1: Biological Anthropology
- ANTH 1H: Biological Anthropology – Honors
- ANTH 1L: Anthropological Laboratory
- BIOL 1: General Biology
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- BIOL 3: Ecology and Field Biology
- BIOL 4: Biology for Majors
- BIOL 4H: Biology for Majors – Honors
- BIOL 6: Humans and the Environment
- BIOL 6L: Humans and the Environment Laboratory
- BIOL 8: Cell and Molecular Biology
- BIOL 17: Neurobiology and Behavior
- BIOL 20: Marine Biology
- BIOL 21: Marine Biology Laboratory
- BIOL 24: Fundamentals of Genetics
- BIOL 24L: Fundamentals of Genetics Laboratory
- MCIR 1: Principles of Microbiology
- MCIR 22: Microbiology
- PSYC 1: Psychological Science

### 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:

**ARTS**
- ARTB 1: Understanding the Visual Arts
- ARTB 1: Understanding the Visual Arts
- ARTS 1H: Understanding the Visual Arts – Honors
- ARTS 3: History of Women and Gender in Art
- ARTS 3H: History of Women and Gender in Art – Honors
- ARTS 4: History of Western Art: Prehistoric – Honors
- ARTS 4H: History of Western Art: Prehistoric – Honors

**HUMANITIES**
- ANTH 1: Introduction to Anthropology
- ANTH 1H: Introduction to Anthropology – Honors
- ANTH 3: History of Women and Gender in Art
- ANTH 3H: History of Women and Gender in Art – Honors
- ARTS 4: History of Western Art: Prehistoric – Honors
- ARTS 4H: History of Western Art: Prehistoric – Honors

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### General Education Requirements for 2011-2012 (continued)

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*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.*

### Elective Courses – Select at least one (1) course from the following (3 units):

- AGAG 1 Food Production, Land Use and Politics – A Global Perspective
- AGRF 20 Conservation of Natural Resources
- ANTH 3 Anthropology
- ANTH 15 Principles of Cultural Anthropology
- ANTH 22 General Cultural Anthropology
- BUSC 1A Principles of Economics – Macroeconomics
- BUSC 1AH Principles of Economics – Macroeconomics – Honors
- BUSC 1B Principles of Economics – Microeconomics
- BUSC 1BH Principles of Economics – Microeconomics – Honors
- CHLD 1 Child, Family, School and Community
- CHLD 10 Child Growth and Development
- CHLD 10H Child Growth and Development – Honors
- GEOG 2 Human Geography
- GEOG 2H Human Geography – Honors
- GEOG 3 Introduction to Geology
- GEOG 8 The Urban World
- GEOG 30 Geography of California
- *HIST 3 World History: Prehistoric to Early Modern
- *HIST 3H World History: Prehistoric to Early Modern – Honors
- *HIST 4 World History: Early Modern to the Present
- *HIST 4H World History: Early Modern to the Present – Honors
- *HIST 10 History of Asia
- *HIST 11 History of Asia
- *HIST 19 History of Mexico
- *HIST 35 History of Africa
- *HIST 39 California History
- *HIST 44 History of Native Americans
- JOUR 100 Mass Media and Society
- *JOUR 107 Race, Culture, Sex, and Mass Media Images
- *POLI 2 Political Science
- *POLI 5 Political Theory I – Ancient to Modern
- *POLI 7 Political Theory II – Early Modern to Contemporary
- *POLI 9 Introduction to International Relations
- PSYC 1A Introduction to Psychology
- PSYC 1AH Introduction to Psychology – Honors
- PSYC 14 Developmental Psychology
- PSYC 15 Introduction to Child Psychology
- PSYC 19 Abnormal Psychology
- PSYC 25 The Psychology of Women
- SOC 1 Sociology
- SOC 1H Sociology – Honors
- SOC 2 Sociology
- SOC 4 Introduction to Gerontology
- SOC 5 Introduction to Criminology
- SOC 5H Introduction to Criminology – Honors
- SOC 14 Marriage and the Family
- SOC 14H Marriage and the Family – Honors
- SOC 15 Child Development
- SOC 20 Sociology of Ethnic Relations
- SOC 20H Sociology of Ethnic Relations – Honors
- SPCH 7 Intercultural Communication
- SPCH 7H Intercultural Communication – Honors
- *SPCH 26 Interpersonal Communication
- *SPCH 26H Interpersonal Communication – Honors

*Courses may not be double counted to satisfy more than one area, even if a course is listed in more than one area.*
### Programs Leading to an Associate degree

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<td>Photography ................................................................. 86</td>
</tr>
<tr>
<td>Physical Education ........................................................ 86</td>
</tr>
<tr>
<td>Photography ................................................................. 86</td>
</tr>
<tr>
<td>Psychiatric Technician to RN ............................................ 86</td>
</tr>
<tr>
<td>Radio Broadcasting: Behind the Scenes ................................ 87</td>
</tr>
<tr>
<td>Radio Broadcasting: On the Air ........................................ 87</td>
</tr>
<tr>
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</tr>
<tr>
<td>Real Estate Appraisal ..................................................... 89</td>
</tr>
<tr>
<td>Registered Veterinary Technology ..................................... 89</td>
</tr>
<tr>
<td>Respiratory Therapy ....................................................... 90</td>
</tr>
<tr>
<td>Sign Language/Interpreting .............................................. 91</td>
</tr>
<tr>
<td>Small Business Management ............................................ 91</td>
</tr>
<tr>
<td>Television Production ..................................................... 91</td>
</tr>
</tbody>
</table>

### LISTING BY INSTRUCTIONAL DIVISION — ASSOCIATE IN SCIENCE DEGREE (A.S.)

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- Computer Graphics Design/Photography .......................... 73
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- Horse Ranch Management ............................................ 79
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Accounting
Accounting and Management Department
Major 50502
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:

<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 - Financial</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSA 8</td>
<td>Principles of Accounting - Managerial</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSA 21</td>
<td>Cost Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUSA 52</td>
<td>Intermediate Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 53</td>
<td>Ten-Key Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>BUSA 81</td>
<td>Work Experience in Accounting</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSA 58</td>
<td>Federal Income Tax Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 70</td>
<td>Payroll and Tax Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 75</td>
<td>Using Microcomputers in Financial Accounting</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Required core courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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</td>
</tr>
<tr>
<td>BUSO 26</td>
<td>Oral Communications</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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 in 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.

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</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</td>
</tr>
<tr>
<td>AGOR 1</td>
<td>Horticultural Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 56</td>
<td>Engine Diagnostics</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 71</td>
<td>Landscape Construction</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Agri-Technology
Agricultural Sciences Department
Major 50101
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.

Air Conditioning and Refrigeration
Air Conditioning, Water & Welding Technologies
Major 50909
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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRC 10</td>
<td>Technical Mathematics</td>
<td>2.0</td>
</tr>
<tr>
<td>AIRC 11</td>
<td>Welding for Air Conditioning and Refrigeration</td>
<td>2.0</td>
</tr>
<tr>
<td>AIRC 12</td>
<td>Air Conditioning Codes and Standards</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRC 20</td>
<td>Refrigeration Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>AIRC 25</td>
<td>Electrical Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>AIRC 26</td>
<td>Gas Heating Fundamentals</td>
<td>2.0</td>
</tr>
<tr>
<td>AIRC 30</td>
<td>Heat Load Calculations</td>
<td>4.0</td>
</tr>
<tr>
<td>AIRC 31</td>
<td>Commercial Electrical</td>
<td>4.0</td>
</tr>
<tr>
<td>AIRC 32A</td>
<td>Air Properties and Measurement</td>
<td>1.0</td>
</tr>
<tr>
<td>AIRC 34</td>
<td>Advanced Mechanical Refrigeration</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Required core courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGOR 20</td>
<td>Conservation of Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 14</td>
<td>Swine Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 16</td>
<td>Horse Production</td>
<td>4.0</td>
</tr>
<tr>
<td>AGOR 17</td>
<td>Sheep Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 30</td>
<td>Beef Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 24</td>
<td>Integrated Pest Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGOR 62</td>
<td>Landscape Irrigation</td>
<td>3.0</td>
</tr>
<tr>
<td>AGPE 70</td>
<td>Pet Shop Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGPE 71</td>
<td>Canine Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>
**Airframe and Aircraft Powerplant Maintenance Technology**

**Maintenance Technology-Evening**

Aircraft Maintenance Tech & Manufacturing Dept.

**Major S0951**

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 airframes and powerplants and their components. Completion of this program leads to an Associate in 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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 65A</td>
<td>Airframe Maintenance Technology</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Aircraft Powerplant</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity</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 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91B</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92B</td>
<td>Aircraft Powerplant</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Required skilled courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 70</td>
<td>Technical Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Physics</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

- Manufacturing Applications

**Total Units:** 67.0

**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 airframes and powerplants and their components. Completion of this program leads to an Associate in 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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 65A</td>
<td>Airframe Maintenance Technology</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 65B</td>
<td>Aircraft Powerplant</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66A</td>
<td>Airframe Maintenance Technology</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 66B</td>
<td>Aircraft Powerplant</td>
<td>13.0</td>
</tr>
<tr>
<td>AIRM 70A</td>
<td>Aircraft Maintenance Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 70B</td>
<td>Aircraft Maintenance Electricity</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 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 91B</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92A</td>
<td>Airframe Maintenance Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AIRM 92B</td>
<td>Aircraft Powerplant</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

- Manufacturing Applications

**Total Units:** 67.0

**Alcohol/Drug Counseling**

Public Services Department

**Major S2101**

In this program the student integrates theory and practical experience in developing skills necessary to work with the alcohol and drug abuse population as well as families and employers of chemically-dependent persons. The curriculum is designed to meet the credentialing requirements of the California Association of Alcohol/Drug Educators. Students who complete this option qualify for employment in a variety of chemical-dependent settings.

**Requirements for the Major**

**Required core courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 1</td>
<td>Alcohol/Drug Dependency</td>
<td>3.0</td>
</tr>
<tr>
<td>AD 2</td>
<td>Physiological Effects</td>
<td>3.0</td>
</tr>
<tr>
<td>AD 3</td>
<td>Chemical Dependency</td>
<td>3.0</td>
</tr>
<tr>
<td>AD 4</td>
<td>Intervention, Treatment and Recovery</td>
<td>3.0</td>
</tr>
<tr>
<td>AD 5</td>
<td>Chemical Dependency</td>
<td>1.5</td>
</tr>
<tr>
<td>AD 6</td>
<td>Dual Diagnosis</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Required skilled courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 8</td>
<td>Group Process and Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>AD 9</td>
<td>Family Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>AD 10</td>
<td>Client Record and Documentation</td>
<td>1.5</td>
</tr>
<tr>
<td>AD 11</td>
<td>Techniques of Intervention and Referral</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Required field work courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 13</td>
<td>Internship/Seminar</td>
<td>4.0</td>
</tr>
<tr>
<td>AD 14</td>
<td>Advanced Internship/Seminar</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**PLUS**

Select six (6) units from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1H</td>
<td>Sociology - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 14</td>
<td>Marriage and the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 15</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units:** 41.0
### Eligibility Requirements and Selection Procedures

**Eligibility Requirements:**
- File a College application and be accepted as a student at Mt. San Antonio College.
- Selection Procedures: All classes are open to all students who meet admission requirements and course prerequisites.

**Special Instructions:**
- b) Restricted Electives can be taken in conjunction with core and skills courses.
- c) Refer to Schedule of Credit Classes for sequence of courses.
- d) For questions, call the division office at (909) 594-5617, ext. 4750.

**Working Environment:**
- May be exposed to infectious and contagious disease, without prior notification.
- May be 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.
- Subject to many interruptions.
- 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.
- Exposure to a highly charged emotional environment which can be stressful intense.

**English Language Skills:**
Although proficiency in English is not a criteria for admission into the Alcohol/Drug Counseling 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 Associate Degree

#### 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.

**Requirements for the Major**
- **Required courses:**
  - ANIM 101A Drawing - Gesture and Figure 3.0 CSU
  - ANIM 104 Drawing Fundamentals 3.0 CSU
  - ARTD 15A Drawing: Beginning 3.0 CSU,UC
  - ANIM 108 Principles of Animation 3.0 CSU
  - ANIM 115 Storyboarding 3.0
  - ANIM 116 Character Development 1.5
  - ANIM 130 Introduction to 3-D 3.0
  - ARTD 290 Portfolio 3.0
  - ARTD 100 Graphic Design I 3.0 CSU
  - ARTD 17A Drawing: Life 3.0 CSU,UC
  - ARTD 20 Design: Two Dimensional 3.0 CSU
  - ARTD 22 Design: Three-Dimensional 3.0 CSU

- **PLUS**
  - Select one course from:
    - ANIM 109 Advanced Principles of Animation 3.0
    - ANIM 117 Animation Background Layout 3.0 CSU
    - ANIM 120 Script Development 3.0
    - ANIM 131 Introduction to Gaming 3.0
    - ANIM 132 Modeling, Texture Mapping and Lighting 3.0
    - ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
    - ANIM 175 Web Animation With Flash 3.0
    - ARTD 16 Drawing: Perspective 3.0 CSU,UC

- **Total Units** 34.5

**Recommended Electives:**
- AHIS 4 History of Western Art: Prehistoric through Gothic
- AHIS 5 History of Western Art: Renaissance through Modern

#### Applied Laboratory Science Technology (ALST)
**Chemistry Department**
**Major S0307**
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 workplace 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:**
  - BUSM 10 Principles of Continuous Quality Improvement 3.0
  - CHEM 20 Introductory Organic and Biochemistry 5.0 CSU,UC
  - CHEM 50H General Chemistry I - Honors 5.0 CSU,UC
  - CHEM 50 General Chemistry I 5.0 CSU
  - CHEM 60 Quantitative Chemical Analysis 5.0 CSU,UC
  - CHMT 1 Introduction to Chemical Laboratory Technology 3.0
  - CHMT 8 Work Experience in Chemical Technology 1.0 - 2.0

- **PLUS**
  - Select six to seven (6 - 7) units from:
    - MICR 22 Microbiology 4.0 CSU,UC
    - PHIL 12H Ethics - Honors 3.0 CSU,UC
    - SPCH 26H Interpersonal Communication - Honors 3.0 CSU,UC

- **Total Units** 33.0 - 34.0

#### Architectural Technology - Design Concentration
**Architecture and Engineering Design Department**
**Major S0207**
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,UC
  - ARCH 12 Architectural Materials and Specifications 3.0 CSU
  - ARCH 13 Architectural Illustration 3.0 CSU
  - ARCH 16 Basic CAD and Computer Application 4.0 CSU,UC
  - 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,UC
  - 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,UC

- **PLUS**
  - Select one (1) course from:
    - ARCH 15 Architectural Working Drawings - I 3.0
    - ARCH 18 Architectural Computer Aided Design Elements 3.0

- **PLUS**
  - Select one (1) course from:
    - ARCH 14 Building and Zoning Codes 3.0 CSU
    - ARCH 15 Architectural Working Drawings - I 3.0
    - ARCH 18 Architectural Computer Aided Design Elements 3.0
    - ARCH 26 Architectural CAD 3.0
    - ARCH 28 Architectural CAD Working Drawings 3.0 CSU
    - ARCH 89 Architectural Work Experience 1.0
    - ARCH 90 Architectural Work Experience 2.0
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Contents
Programs Leading to an Associate degree

INSP 70

Elements of Construction
Total Units

3.0 CSU
38.0 - 40.0

Recommended Electives:

ARTD 15A Drawing: Beginning
ARTD 20 Design: Two Dimensional
ARTS 22 Design: Three-Dimensional
BIOL 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.

PROGRAMS LEADING
TO AN ASSOCIATE DEGREE

Architecture and Engineering
Design Department
Major S0201

This program prepares students to enter the feld of
architecture and related areas. The student is provided
with an option of direct employment into the feld or
preparation for transfer to the 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 certifcate
program is also available.
Requirements for the Major
Required courses:

ARCH 14
ARCH 15
ARCH 16
ARCH 18
ARCH 26
ARCH 28
ARCH 29

72

Design I - Elements of Design
Architectural Drawing
Architectural Materials
and Specifcations
Building and Zoning Codes
Architectural Working
Drawings - I
Basic CAD and Computer
Application
Architectural Computer
Aided Design Elements
Architectural CAD
Working Drawings
Architectural CAD
Illustration and Animation
Design IV - Advanced Project

Technical Descriptive Geometry 3.0 CSU
Elements of Construction
3.0 CSU

PLUS
Select one (1) course from:

ARCH 13
ARCH 21
ARCH 23
ARCH 31
ARCH 32
ARCH 89
EDT 26
INSP 71

Architectural Illustration
Design II - Architectural Design
Architectural Presentations
World Architecture I
World Architecture II
Architectural Work Experience
Civil Engineering Technology
and CAD
Construction Estimating
Total Units

3.0 CSU,UC
3.0 CSU
3.0 CSU
3.0 CSU,UC
3.0 CSU,UC
1.0 – 2.0
3.0 CSU
3.0 CSU
38.0 - 40.0

Recommended Electives:

Architectural Technology Technology Concentration

ARCH 10
ARCH 11
ARCH 12

EDT 20
INSP 70

3.0 CSU
3.0 CSU,UC
3.0 CSU
3.0
3.0 CSU

MATH 150 Trigonometry
PHYS 2AG General Physics
MATH 150 AND PHYS 2AG typically are required for transfer
to a professional school of architecture. Verify all
requirements with the transfer institution.

Aeronautics, Transportation
and Travel Department
Major S0910

3.0 CSU

This program is designed to prepare the student for a
career in the felds of Building Automation, Energy
Management, and Green Building Technologies. Students
desiring a bachelor’s degree (transfer program) should
consult with an advisor to discuss transferability of
course.
Requirements for the Major
Required courses:

AIRC31

Requirements for the Major
Required courses:

AIRC67
CISN11
CISW41
CISW49

AERO 29
AERO 30
AIRT 41
AIRT 42A
AIRT 42B
AIRT 43
CISB 11
TRAN 17

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Primary Pilot Ground School
Navigation
Aviation Weather
Aviation Safety
and Human Factors
Federal Aviation Regulations
Instrument Ground School
Aircraft Recognition
and Performance
Terminal Air Traffc Control
Enroute Air Traffc Control
Air Traffc Control Team Skills
Computer Information Systems
Air Transportation

4.0
3.0
3.0
3.0

CSU
CSU
CSU
CSU

2.0 CSU
3.0 CSU
3.0 CSU
3.0
3.0
1.5
3.5
3.0

CSU
CSU
CSU
CSU,UC
CSU

Commercial Pilot Ground School
Aircraft and Engines
Flight
Flight Laboratory
Human Relations in Business

Air Conditioning, Welding
and Water Technologies
Major S0308

AIRC34

AERO 23
AERO 24
AERO 26
AERO 27

35.0

Building Automation

This curriculum meets the requirements of the Federal Aviation
Administration Collegiate Training Initiative (CTI). Under an
educational partnership agreement with the FAA, this CTI
program prepares students for broad-based aviation careers.
Students completing this CTI program may be recommended
by the college for hiring by the FAA as air traffc controllers.
There are no prerequisites or enrollment limitations.

3.0
3.0 CSU

AERO 25
AERO 28
AERO 40
AERO 40L
BUSM 60

AIRC20
AIRC25

Aviation Science

4.0 CSU,UC
3.0

Total Units

BUSA 7

Recommended Electives:

AIRC61
AIRC63
AIRC65

Refrigeration Fundamentals
3.0
Electrical Fundamentals for A/C 4.0
& Refrigeration
Commercial Electrical for A/C
4.0
& Refrigeration
Advanced Mechanical
4.0
Refrigeration
Building Automation
2.5
Fundamentals
Building Control Networks
3.0
Building Automation Network 3.0
& Programming
Energy Management
4.0
Telecommunications/Networking 4.0
XML Secure Programming
3.0
Service Oriented Architecture 3.0
Concepts & Practice
Total Units
37.5

Business: Management
Accounting and Management Department
Major S0506

BUSM 10
BUSM 20
BUSM 51
BUSM 60
BUSM 61
BUSM 62
BUSS 36
CISB 15

5.0 CSU,UC
3.0
3.0 CSU,UC
3.0 CSU
3.0 CSU
3.0 CSU
3.0
3.0 CSU
4.0 CSU,UC
30.0

Recommended Electives:

BUSM 81
BUSM 85
BUSS 85

Work Experience in Business
Special Issues in Business
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 feld. Completion of this program aids the
student’s search for an entry-level job in retail management.
Requirements for the Major
Required courses:

BUSA 7

BUSA 72
BUSA 11
BUSM 60
BUSM 61
BUSM 62
BUSO 25
BUSO 26

This program is intended to prepare students for
BUSS 36
employment following graduation. Students wishing a
CISB 15
bachelor’s degree (transfer program) should consult with FASH 62
a counselor or advisor to discuss transferability of courses.
Requirements for the Major
Required courses:

Principles of Accounting
- Financial
Principles of Continuous
Quality Improvement
Principles of Business
Principles of International
Business
Human Relations in Business
Business Organization
and Management
Human Resource Management
Principles of Marketing
Microcomputer Applications
Total Units

BUSS 50

Principles of Accounting
- Financial
or
Bookkeeping - Accounting
Fundamentals of Accounting
Human Relations in Business
Business Organization
and Management
Human Resource Management
Business Communications
Oral Communications
for Business
Principles of Marketing
Microcomputer Applications
Retail Store Management
and Merchandising
or
Retail Store Management

5.0 CSU,UC

5.0
3.0
3.0 CSU
3.0 CSU
3.0
3.0 CSU
3.0
3.0 CSU
4.0 CSU,UC
3.0 CSU

3.0


Programs Leading to an Associate 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 in 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

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLD 1 Child, Family and Community 3.0 CSU,UC</td>
</tr>
<tr>
<td>CHLD 5 Principles/Practices 3.0 CSU</td>
</tr>
<tr>
<td>in Child Development Programs</td>
</tr>
<tr>
<td>CHLD 6 Survey of Child Development 3.0 CSU</td>
</tr>
<tr>
<td>CHLD 10 Child Growth and Development 3.0 CSU,UC</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>CHLD 10H Child Growth and Development - Honors 3.0 CSU,UC</td>
</tr>
<tr>
<td>CHLD 64 Health, Safety and Nutrition of Young Children 3.0 CSU</td>
</tr>
<tr>
<td>CHLD 66 Early Childhood Development 2.0 CSU</td>
</tr>
<tr>
<td>Observation</td>
</tr>
<tr>
<td>CHLD 66L Early Childhood Development Observation Laboratory 1.0 CSU</td>
</tr>
<tr>
<td>CHLD 67 Early Childhood Development Participation 2.0 CSU</td>
</tr>
<tr>
<td>CHLD 67L Early Childhood Development Participation Laboratory 1.0 CSU</td>
</tr>
<tr>
<td>CHLD 68 Children With Special Needs 3.0 CSU</td>
</tr>
<tr>
<td>CHLD 69 Early Childhood Development 2.0 CSU</td>
</tr>
<tr>
<td>Field/Work Seminar</td>
</tr>
<tr>
<td>CHLD 84 Guidance and Discipline 1.0 CSU</td>
</tr>
<tr>
<td>in Child Development Settings</td>
</tr>
<tr>
<td>CHLD 91 Early Childhood Development Field Work 1.0 CSU</td>
</tr>
</tbody>
</table>

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 |
| CHLD 51 Early Literacy in Child Development |
| CHLD 61 Language Arts & Art Media for Young Children |
| CHLD 62 Music and Motor Development for Young Children |
| CHLD 63 Creative Science and Math for Young Children |
| CHLD 71A Administration of Child Development Programs |
| CHLD 71B Management/Marketing/Personnel for ECD Programs |
| CHLD 72 Teacher, Parent, and Child Relationships |
| CHLD 73 Infant/Toddler Care and Development |

Commercial Flight
Aeronautics, Transportation and Travel Department
Major S0912
The Commercial Flight curriculum prepares students for careers as aircraft pilots as well as related ground occupations in aviation. Students have the opportunity for optional flight training with commensurate college credit. The pilot license is not required for graduation but it is desirable for career advancement.

This program prepares students for military and civilian aviation careers through transfer programs to bachelor's degree aviation curricula throughout the nation. With concurrent flight training, students may achieve the commercial pilot certificate and instrument rating simultaneously with the A.S. degree.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 23 Primary Pilot Ground School 4.0 CSU</td>
</tr>
<tr>
<td>AERO 24 Navigation 3.0 CSU</td>
</tr>
<tr>
<td>AERO 25 Commercial Pilot Ground School 3.0 CSU</td>
</tr>
<tr>
<td>AERO 26 Aviation Weather 3.0 CSU</td>
</tr>
<tr>
<td>AERO 27 Aviation Safety and Human Factors 3.0 CSU</td>
</tr>
<tr>
<td>AERO 28 Aircraft and Engines 3.0 CSU</td>
</tr>
<tr>
<td>AERO 29 Federal Aviation Regulations 2.0 CSU</td>
</tr>
<tr>
<td>AERO 30 Instrument Ground School 3.0 CSU</td>
</tr>
<tr>
<td>TRAN 17 Air Transportation 3.0 CSU</td>
</tr>
</tbody>
</table>

Total Units 27.0

Recommended Electives:

| AERO 40 Flight |
| AERO 40L Flight Laboratory |
| AERO 41 Basic Flight Simulator Laboratory |
| AERO 58 Flight Instructor Ground School |
| ART 41 Aircraft Recognition and Performance |
| CSB 11 Computer Information Systems |

Computer - Database Management Systems
Computer Information Systems Department
Major S0706
The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) degree. The program is designed to prepare students for employment in a computer field following graduation. Students wishing a bachelor's degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses.

Core coursework includes a list of core courses and additional courses for each concentration. The Database Management Systems Concentration includes coursework in the design, development and maintenance of relational databases. Students choosing this concentration have the option of selecting either the Microsoft or Oracle concentration.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required core courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISB 11 Computer Information Systems 3.5 CSU,UC</td>
</tr>
<tr>
<td>CISB 15 Microcomputer Applications 4.0 CSU,UC</td>
</tr>
<tr>
<td>CISM 11 Systems Analysis and Design 3.5 CSU,UC</td>
</tr>
<tr>
<td>CISN 21 Windows Operating System 4.0</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>CISN 22 Macintosh Operating System 4.0</td>
</tr>
<tr>
<td>CISM 24 Advanced Computer Applications 3.5</td>
</tr>
<tr>
<td>BUSM 20 Principles of Business 3.0</td>
</tr>
<tr>
<td>BUSM 25 Principles of E-Commerce 3.0</td>
</tr>
<tr>
<td>BUSA 7 Principles of Accounting 5.0</td>
</tr>
</tbody>
</table>

PLUS
Select one of the following two concentrations:

Microsoft Concentration:

| CISD 11 Database Management 4.0 CSU |
| CISD 14 Advanced Database Management - Microsoft Access 4.0 |
| CISD 21 Database Management - Microsoft SQL Server 4.0 |
| CISD 40 Database Design 3.0 |

Oracle Concentration:

| CISD 31 Database Management - Oracle 4.0 |
| CISD 32 Oracle Forms and Reports 3.0 |
| CISD 40 Database Design 3.0 |

Total Units 28.0 — 35.0

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/photography. A variety of career opportunities are available in art, cinema, communications, industrial arts, graphics, and journalism. Students desiring a bachelor's degree should consult with a counselor or advisor to address transferability of courses.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 1 Computer Graphics Lab 1.0</td>
</tr>
<tr>
<td>GRAP 10 Photo Editing with Photoshop 3.0</td>
</tr>
<tr>
<td>GRAP 12 Advanced Photo Editing with Photoshop 3.0</td>
</tr>
<tr>
<td>GRAP 14 Digital Color Management 3.0</td>
</tr>
<tr>
<td>GRAP 16 Digital Image Design 3.0</td>
</tr>
<tr>
<td>GRAP 18 Advanced Image Design 3.0</td>
</tr>
<tr>
<td>GRAP 20 Applying Photos and Images in Multimedia 3.0</td>
</tr>
<tr>
<td>GRAP 28 Digital Portfolio 2.0</td>
</tr>
<tr>
<td>PHOT 10 Beginning Photography 3.0 CSU,UC</td>
</tr>
<tr>
<td>PHOT 17 Photocommunication 3.0</td>
</tr>
</tbody>
</table>

Total Units 27.0

Recommended Electives:

| AHIS 1 Understanding the Visual Arts 1.0 |
| ARTB 1 Understanding the Visual Arts 1.0 |
| COMP 10 Operating the Macintosh Computer 3.0 |
| GRAP 24 Work Experience in Computer Graphics 3.0 |
| PHOT 1 Laboratory Studies: Black and White Photography 3.0 |
| PHOT 2 Laboratory Studies: Color Photography 3.0 |
| PHOT 4 Digital Cameras and Composition 4.0 |
| PHOT 15 History of Photography 4.0 |
Programs Leading to an Associate degree

Computer and Networking Technology
Electronics and Computer Technology Department

Major S0725
The Computer and Networking Technology program prepares students to become computer and networking service technicians. The program provides foundations in basics electricity and electronics, operating systems, computer service and troubleshooting, and customer relations, as well as more advanced training in networks, servers, and security. Students learn to install, configure, maintain, troubleshoot, and repair computers and networks. Students will become fully prepared to take the A+, Network+, Server+, and Security+ certification tests sponsored by CompTIA and offered at testing centers throughout the country. These industry certifications are recognized worldwide as benchmarks for the computer and networking technician. Further, students will have requisite skills upon which to seek additional I.T. certifications.

Two certificate programs in Computer and Networking are also available. Please see the “Certificates” section of the college catalog for descriptions and course requirements.

Requirements for the Major
Required courses:
- CNET 51 PC Servicing
- CNET 54 PC Troubleshooting
- CNET 56 Windows Server
- CNET 60 A+ Certification Preparation
- CNET 62 Network+ Certification Preparation

Recommended Electives:
- ELEC 31 Electronic Devices
- ELEC 74 Microprocessor Systems

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 computer/information technology field in such areas as network administrator and security management administrator.

The curriculum is intended 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 wishing a bachelor's degree should meet with a counselor or advisor for choices to transfer to available CSU joint degree programs.

Requirements for the Major
Required courses:
- CISP 11 Telecommunications
- CISP 24 Windows Server Network and Security Administration
- CISP 25 Network Analysis
- CISP 29 DNS and Name Resolution
- CISP 34 LINUX Networking and Security
- CISP 38 System Administration
- CISP 44 Network Security and Firewalls
- CISP 51 Cisco CCNA Networking
- CISP 53 Microsoft Windows Server
- CISP 55 Linux Operating System
- CISP 57 Object-Oriented Design
- CISP 58 Systems Analysis and Design
- CISP 59 Database Management
- BUSM 20 Principles of Business
- BUSM 25 Principles of E-Commerce

Recommended Electives:
- ELEC 31 Electronic Devices
- ELEC 74 Microprocessor Systems

Total Units: 43.0 - 44.0

Computer Programming
Computer Information Systems Department

Major S7302
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 wishing a bachelor's degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses.

Coursework 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:
- CISP 11 Computer Information Systems
- CISP 15 Microcomputer Applications
- CISP 18 Systems Analysis and Design
- CISP 21 Windows Operating System
- CISP 31 Linux Operating System
- CISP 37 Object-Oriented Design
- BUSM 24 Principles of Business
- BUSM 25 Principles of E-Commerce
- BUSM 27 Principles of Accounting

Recommended Electives:
- CISP 47 Advanced Programming in C#
- CISP 48 Advanced Programming in Visual Basic
- CISP 57 Database Management

Total Units: 32.0 - 34.0

Construction Inspection
Architecture and Engineering Design Department

Major S0930
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
- ARCH 14 Building and Zoning Codes
- ARCH 15 Architectural Working Drawings
- BUSM 15 Principles of Business
- BUSM 23 Principles of Accounting
- BUSM 25 Principles of E-Commerce
- BUSM 27 Principles of Accounting

Recommended Electives:
- ARCH 67 Reading Construction Drawings

Total Units: 18.0

Total Units: 32.0 - 34.0

Programs Leading to an Associate degree
Correctionsal Sciences
Public Services Department
Major S2103
Correctionsal Sciences is the application of law, social, and
cultural 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 Major
Required courses:
ADJU 68 Administration of Justice
Report Writing 3.0 CSU
CORS 10 Introduction to Correctional
Sciences 3.0 CSU
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:
ADJU 1 The Administration
of Justice System 3.0 CSU,UC
ADJU 2 Principles and Procedures
of the Justice System 3.0 CSU
ADJU 20 Principles of Investigation 3.0 CSU
ADJU 38 Narcotics Investigation 3.0
ADJU 59 Gangs and Corrections 3.0 CSU
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 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
The Correctional Sciences faculty recommend 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 CSU,UC
CHLD 10 Child Growth and Development 3.0 CSU,UC
PSYC 14 Developmental Psychology 3.0 CSU,UC
CHLD 68 Children With Special Needs 3.0 CSU
EDUC 10 Introduction to Education 3.0 CSU,UC
EDUC 16 Aspects and Issues 3.0 CSU,UC
ENGL 1A Freshman Composition 4.0 CSU,UC
ENGL 1AH Freshman Composition - Honors 4.0 CSU,UC
MATH 71 Intermediate Algebra 5.0
Total Units 24.0

Recommended Electives:
CHLD 51 Early Literacy in Child Development
CHLD 64 Health, Safety and Nutrition of Young Children
LIT 40 Children’s Literature
PE 3 First Aid and CPR

Electronics and Computer Engineering Technology
Electronics and Computer
Technology Department
Major S0906
The Electronics and Computer Engineering Technology
(EECT) degree program prepares individuals either for initial
employment or for enhancement of existing skills in the
electronics field, or for transfer into B.S. programs in
Electronics Technology or Industrial Technology offered in
the CSU system. In addition to exposing students to core
topics such as components and circuits, the program
includes coursework in advanced areas including
microcontrollers and interfacing, communications, and
industrial electronic controls. Nearly all laboratories have
new, state-of-the-art equipment to provide students with
quality, hands-on learning experiences.
Students completing EECT degree and certificate programs
possess ample skills to make them versatile employees. Typical
technician-level job classifications include field service
technician, field engineer, computer service technician,
customer service technician, communications technician,
and electronics technician. All students completing the degree program are automatically eligible to receive,
without further examination, the 3rd class technician license from the National Association of Radio and
Telecommunications Engineers (N.A.R.T.E.).

Several certificate programs in electronics technology are
also available. Please see the “Certifications” section of the
college catalog for descriptions and course requirements.
There are no prerequisites or enrollment limitations.

Requirements for the Major
Required courses:
ELEC 11 Technical Applications 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 53 Communications Circuits 4.0
ELEC 54B Industrial Electronics 4.0 CSU
ELEC 55 Microwave Communications 4.0
ELEC 56 Digital Electronics 4.0 CSU
ELEC 61 Electronic Assembly and Fabrication 3.0 CSU
ELEC 74 Micro Controller Systems 4.0 CSU
TECH 60 Customer Relations for the Technician 1.0
Total Units 44.0

Recommended Electives:
CISP 11 Programming in Visual Basic
EDT 11 Technical Engineering Drawing I
ELEC 62 Advanced Surface Mount Assembly and Rework
ELEC 76 Radio Telephone Communications
PHYS 2AG General Physics

Emergency Medical Services
Medical Services Department
Major S5120
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 in Science degree in Emergency Medical Services.
This Paramedic Program is accredited by CAATEP
(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 2.0
EMS 20 Emergency Cardiac Care 1.0
EMS 30 Pharmacology for Paramedics 2.0
EMS 40 Cardiology for Paramedics 5.0
EMS 50 Paramedic Skills Competency 5.0
EMS 60 EMS Theory for Paramedics 8.5
EMS 70 Paramedic Clinical Internship 4.0
EMS 80 Paramedic Field Externship 9.5
Total Units 41.0

Recommended Electives:
ADJU 1 The Administration of Justice System
FIRE 1 Fire Protection Organization
PSYC 1A Introduction to Psychology
SOSC 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.
Programs Leading to an Associate degree

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 the state of California licensing exam.

Paramedic Program Readmission Policy

If the student fails any of the co-requisite courses, EMS 10 - EMS 60, he/she will be dropped from the program. If the student wishes to repeat the program, a Success Plan and Contract will be developed with the faculty to increase the student’s chances of success prior to re-entry. If the student withdraws or is dismissed from the program a second time, he/she will not be allowed to re-enter the Paramedic Program at Mt. SAC.

Application Requirements

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. 4265. 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.

6) Successful completion of EMS-1, Fundamentals for Paramedics.
7) Forward two official transcripts of all coursework completed (high school, 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 to perform fine motor movements with hands and fingers

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 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
- 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 EMS program, students must be able to speak, write and read English to ensure patient safety and to complete classes successfully.

Engineering Design Technology

Architecture and Engineering Design Department

Major 50913

This curriculum is recommended for those who wish to become an engineering technician, CADD operator/designer 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 11</td>
<td>Technical Engineering Drawing I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 14</td>
<td>Mechanical Design</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 18</td>
<td>Engineering CAD Applications</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>EDT 20</td>
<td>Technical Descriptive Geometry</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 24</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 26</td>
<td>Civil Engineering Technology and CAD</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>EDT 28</td>
<td>Engineering CAD 3-D</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ELEC 50A</td>
<td>Electronic Circuits (DC)</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>ELEC 50B</td>
<td>Electronic Circuits (AC)</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>39.0</td>
</tr>
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</table>

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 89</td>
<td>Engineering Design Technology Work Experience</td>
<td></td>
</tr>
<tr>
<td>ENGR 8</td>
<td>Properties of Materials</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 8</td>
<td>Properties of Materials</td>
<td></td>
</tr>
<tr>
<td>ENGR 12</td>
<td>Mathematics for Technical Science</td>
<td></td>
</tr>
</tbody>
</table>
Equipment Technology
Agricultural Sciences Department
Major S011B

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.mtsac.edu/instruction/sciences/agriculture.

Requirements for the Major

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 20 Principles of Business 3.0 CSU,UC
- BUSM 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 CSU
- BUSR 53 Real Estate Finance 3.0 CSU
- BUSR 76 Escrow Procedures I 3.0 CSU
- BUSR 77 Escrow Procedures II 3.0 CSU
- CJSB 15 Microcomputer Applications 4.0 CSU,UC
- CSI 11 Computer Keyboarding 4.0 CSU

Total Units 35.0 - 38.0

Recommended Electives:
- BUSA 8 Principles of Accounting - Managerial
- BUSL 18 Business Law 2.0 CSU
- BUSL 18H Business Law - Honors
- BUSM 58 Management Principles 3.0 CSU
- BUSR 52 Real Estate Practice
- BUSR 52D Real Estate Practice Work Experience
- BUSR 57 Income Tax Aspects of Real Estate Investments
- PSYC 1A Introduction to Psychology
- PSYC 1AH Introduction to Psychology - Honors

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
- 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 10 Introduction to Interior Design 3.0 CSU
- NF 20 Principles of Foods With Lab 3.0 CSU
- NF 62 Meal Management 3.0 CSU
- NF 25 Essentials of Nutrition 3.0 CSU,UC
- NF 25H Essentials of Nutrition - Honors 3.0 CSU,UC
- NF 28 Cultural and Ethnic Foods 3.0 CSU,UC

Total Units 30.0

Recommended Electives:
- CHLD 1 Child, Family and Community
- FASH 12 Advanced Clothing
- ID 29 Interior Design Studio I
- ID 20 Color and Design Theory I

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 11 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 3.0 CSU
- FASH 21 Patternmaking I 3.0 CSU
- FASH 22 Fashion Design By Draping 3.0 CSU
- FASH 23 Patternmaking II 3.0 CSU
- FASH 25 Fashion Computer-Assisted Drawing 3.0 CSU
- FASH 30 Fashion Design and Product Development I 3.0 CSU
- FASH 31 Fashion Design and Product Development II 3.0 CSU
- FASH 32 Fashion Design and Product Development III 3.0 CSU

Total Units 42.0

Recommended Electives:
- FASH 24 Fashion Patternmaking by Computer
- FASH 26 Fashion Computer Assisted Design
- FASH 35 Special Topics in Fashion Design
- FASH 81 Work Experience in Fashion
- FASH 90 Field Studies
- FASH 91 Field Studies - New York
- FASH 92 Field Studies - Fashion Capitals
- FCS 41 Life Management
Fire Technology

Fire Technology Department

Major S2105

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 3.0 CSU
- FIRE 4 Building Construction 3.0 CSU
- FIRE 5 Fire Behavior and Combustion 3.0 CSU
- FIRE 6 Hazardous Materials/ICS 3.0

Total Units: 30.0

Recommended Electives:

- BUSM 20 Principles of Accounting 5.0 CSU,UC
- BUSL 18H Business Law - Honors 3.0 CSU,UC

Recommended Electives:

- BUSM 20 Principles of Business 3.0 CSU
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization 3.0 CSU
- BUSM 62 Human Resource Management 3.0

Total Units: 21.5

General Business

Accounting and Management Department

Major S0501

This program is intended to prepare students for careers in
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 Bookkeeping - Accounting 5.0
- BUSM 18 Business Law 3.0 CSU,UC
- BUSM 10 Principles of Continuing Quality Improvement 3.0
- BUSM 20 Principles of Business 3.0 CSU
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization 3.0 CSU
- BUSM 62 Human Resource Management 3.0

Total Units: 21.5

Graphic Design

Commercial and Entertainment Arts Department

Major S0318

This program is designed to prepare students for careers in
the Graphic Design field of Commercial Art. Students will
be given a balanced blend of creative, design, and
technology skills necessary to develop successful graphic
design for print, web, and other media channels.

Production software is industry standard and course
content is driven by industry needs.

Requirements for the Major

Required courses:

- ARTD 25A Painting: Beginning 3.0
- ARTD 20 Design: Two Dimensional 3.0
- ARTD 15A Drawing: Beginning 3.0
- ARTC 165 Illustration 3.0
- ARTC 160 Typography 3.0
- ARTC 120 Graphic Design II 3.0
- ARTC 100 Graphic Design I 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSO 36 Principles of Marketing 3.0 CSU
- BUSL 18H Business Law - Honors 3.0 CSU
- BUSM 10 Principles of Continuous Quality Improvement 3.0
- BUSM 20 Principles of Business 3.0 CSU
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization 3.0 CSU
- BUSM 62 Human Resource Management 3.0

Total Units: 42.0
## Histologic Technician Training

### Biological Sciences Department

**Major S1211**

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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 108 Introductory Human Physiology</td>
<td>4.0 CSU, UC</td>
</tr>
<tr>
<td>ANAT 36 Human Physiology</td>
<td>5.0 CSU, UC</td>
</tr>
<tr>
<td>ANAT 35 Human Anatomy</td>
<td>5.0 CSU, UC</td>
</tr>
<tr>
<td>CHEM 10 Chemistry for Allied Health Majors</td>
<td>4.0 CSU, UC</td>
</tr>
<tr>
<td>CHEM 40 Intro to General Chemistry</td>
<td>4.0 CSU, UC</td>
</tr>
<tr>
<td>CHEM 50 General Chemistry I</td>
<td>5.0 CSU, UC</td>
</tr>
<tr>
<td>CHEM 50H General Chemistry I - Honors</td>
<td>5.0 CSU, UC</td>
</tr>
<tr>
<td>HT 1 Intro to Histotechnology</td>
<td>1.0</td>
</tr>
<tr>
<td>HT 2 Scientific Basics for Histologic Technicians</td>
<td>3.0</td>
</tr>
<tr>
<td>HT 10 Histology</td>
<td>3.0</td>
</tr>
<tr>
<td>HT 12 Beginning Histotechniques</td>
<td>5.0</td>
</tr>
<tr>
<td>HT 14 Advanced Histotechniques</td>
<td>4.0</td>
</tr>
<tr>
<td>HT 16 Histohistology/Immunohistochemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>HT 17 Work Experience In Histotechnology</td>
<td>4.0</td>
</tr>
<tr>
<td>MICR 1 Principles of Microbiology</td>
<td>5.0 CSU, UC</td>
</tr>
<tr>
<td>MICR 22 Microbiology</td>
<td>4.0 CSU, UC</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>41.0 - 44.0</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 4 History of Western Art: Prehistory Through Gothic</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 172 Motion Graphics with After Effects</td>
<td>3.0</td>
</tr>
<tr>
<td>ANIM 175 Web Animation with Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 140 Graphic Design III</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTC 299 Work Experience in Advertising Design / Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 16 Drawing: Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTD 45A Printmaking: Silk-Screening</td>
<td>3.0</td>
</tr>
<tr>
<td>ARTS 22 Design: Three Dimensional</td>
<td>3.0</td>
</tr>
<tr>
<td>PHOT 10 Basic Digital and Film Photography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Animal Production Management

**Major S0102**

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 or faculty 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 or faculty 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAN 2 Animal Nutrition</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGAN 94 Animal Breeding</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 16 Horse Production</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>AGLI 18 Horse Ranch Management</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>AGLI 19 Horse Hoof Care</td>
<td>2.0 CSU</td>
</tr>
<tr>
<td>AGLI 20 Horse Behavior and Training</td>
<td>2.0</td>
</tr>
<tr>
<td>AGLI 96 Animal Sanitation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>AGLI 97 Artificial Insulation of Livestock</td>
<td>2.0</td>
</tr>
<tr>
<td>BUSM 20 Principles of Business</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>BUSM 66 Small Business Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>33.0 - 36.0</td>
</tr>
</tbody>
</table>

### Horse Ranch Management

**Agricultural Sciences Department**

**Major S1307**

This program provides students with an excellent background for a career in the hospitality and restaurant management industry. Students will have the education necessary for many entry-level positions. Students may wish to pursue a Certificate in Hospitality Management, Restaurant Management, Food Services, or Catering. This 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 counselor or advisor to discuss transfer options.

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 19 Advanced Business Law</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 20 Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 60 Human Relations in Business</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>BUSM 61 Business Organization and Management</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>28.0</td>
</tr>
</tbody>
</table>

### Hospitality and Restaurant Management

**Consumer Science and Design Technologies**

**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.

Students may 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51 Introduction to Hospitality</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 52 Food Safety and Sanitation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 53 Dining Room Service Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 54 Basic Cooking Techniques</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 56 Management of Hospitality Personnel and Operations</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>28.0</td>
</tr>
</tbody>
</table>

### 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.

Students may 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 51 Introduction to Hospitality</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 52 Food Safety and Sanitation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 53 Dining Room Service Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 54 Basic Cooking Techniques</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 56 Management of Hospitality Personnel and Operations</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 57 Restaurant Cost Control</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 64 Hospitality Financial Accounting</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 66 Hospitality Law</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>HRM 70 Introduction to Lodging</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>28.0</td>
</tr>
</tbody>
</table>
### Programs Leading to an Associate degree

#### Integrated Pest Management
**Agricultural Sciences**
**Major S0311**
The Integrated Pest Management Program is part of the Agricultural Science Program and prepares students to design and implement comprehensive integrated pest management programs for private or public entities. It qualifies students to take the Pest Control Advisor (PCA) exam administered by the California Department of Pesticide Regulation. Pest Control Advisors provide written recommendations for the application of pesticides. Students learn how to design, install, and manage irrigation systems, set up and implement fertilizer and pest management programs, and properly identify and maintain trees, shrubs, and turf grasses. Students also learn personal management and budgeting skills. Most courses in the program provide hands-on experiences designed to give students a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor, advisor or faculty member in the interior design program to discuss transfer options.

#### Requirements for the Major
**Required courses:**
- **AGOR 1** Horticulture Science
- **AGOR 24** Integrated Pest Management
- **AGOR 29** Ornamental Plants - Herbaceous
- **AGOR 30** Ornamental Plants - Trees and Woody Shrubs
- **AGOR 39** Turfgrass Production
- **AGOR 50** Soil Science and Management
- **AGOR 62** Landscape Irrigation - Design and Installation
- **AGOR 91** Work Experience in Nursery Operations

**PLUS**
- **Student must take at least 6 units of any of the following:**
  - **Biol 1, 2, 3, 4, 6, 6L, 8, 20, 21, 34, 50, 87FWY3; Chem 10, 20, 40, 50, 50H, 51, 60, 80, 81**
- **Total Units 42.0**

#### Recommended Electives:
- **AGOR 13** Interior Landscaping
- **AGOR 15** Landscaping Design
- **ARCH 23** Architectural Presentations
- **ARTG 20** Exhibition Design
- **BUS 70** Bookkeeping - Accounting
- **ID 50** Interior Design Specialized Studio
- **ID 52** Interior Design Laboratory Studies

#### International Design
**Consumer Science and Design Technologies**
**Major S1301**
The Interior Design A.S. degree provides students with an excellent foundation for a successful career in interior design. Students will obtain the skill sets necessary to take a variety of positions in the design field. Students desiring a bachelor's degree should consult with a counselor, advisor or faculty member in the interior design program to discuss transfer options.

#### Requirements for the Major
**Required courses:**
- **ID 10** Introduction to Interior Design 3.0 CSU
- **ID 12** Interior Materials and Products 3.0 CSU
- **ID 14** History of Furniture and Decorative Arts
- **ID 20** Color and Design Theory I 3.0
- **ID 21** Color and Design Theory II 3.0
- **ID 22** Design Drawing for Interior Design 3.0
- **ID 23** Computer Aided Drawing for Interior Design 3.0
- **ID 25** Codes and Specifications for Interior Design 3.0
- **ID 26** Space Planning for Interior Design 3.0
- **ID 27** Rapid Visualization 3.0
- **ID 29** Interior Design Studio I 3.0
- **ID 31** Building Systems for Interior Design 3.0
- **ID 32** Lighting Design 3.0
- **ID 34** Computer Aided Drawing for Interior Design II 3.0
- **ID 36** Professional Practices for Interior Design 3.0
- **ID 37** Business Practices for Interior Design 3.0
- **ID 38** Internship in Interior Design (1-3 unit course, 2 units required)
- **ID 39** Interior Design Studio II 3.0

**Total Units 50.0**

**Recommended Electives:**
- **AGOR 13** Interior Landscaping
- **AGOR 15** Landscaping Design
- **ARCH 23** Architectural Presentations
- **ARTG 20** Exhibition Design
- **BUS 72** Bookkeeping - Accounting
- **ID 50** Interior Design Specialized Studio
- **ID 52** Interior Design Laboratory Studies

#### Recommended Electives:
- **AGOR 32** Landscaping Design
- **ARCH 23** Architectural Presentations
- **ARTG 20** Exhibition Design
- **BUS 72** Bookkeeping - Accounting
- **ID 50** Interior Design Specialized Studio
- **ID 52** Interior Design Laboratory Studies

**Total Units 58.0**

**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:**
- **BUS 20** International Business Law
- **BUS 21** Principles of Business
- **BUS 50** World Culture
- **BUS 51** Principles of International Business
- **BUS 52** Principles of Exporting
- **BUS 61** Business Organization and Management
- **BUS 66** Small Business Management
- **BUS 36** Principles of Marketing

**PLUS**
- **Select one (1) course from:**
  - **BUS 70** International Marketing Concepts
  - **CHIN 1** Beginning Chinese
  - **FRCH 1** Elementary French
  - **GERM 1** Elementary German
  - **ITAL 1** Elementary Italian
  - **JAPN 1** Elementary Japanese
  - **SPAN 1** Elementary Spanish

**Total Units 27.0 - 28.0**

**Recommended Electives:**
- **BUS 70** International Marketing Concepts
- **BUS 81** Work Experience in Business
- **BUS 85** Special Issues in Business
- **BUS 85** Special Issues in Marketing

**Total Units 58.0**
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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 1</td>
<td>The Administration of Justice System</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJU 2</td>
<td>Principles and Procedures of the Justice System</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJU 3</td>
<td>Concepts of Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJU 4</td>
<td>Legal Aspects of Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJU 5</td>
<td>Community Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJU 68</td>
<td>Administration of Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>PE-F 50</td>
<td>Physical Skills Preparation for Law Enforcement</td>
<td>3.0</td>
</tr>
<tr>
<td>PE-F 51</td>
<td>Agility Testing Preparation for Law Enforcement</td>
<td>3.0</td>
</tr>
<tr>
<td>PE-F 52</td>
<td>Fitness and Conditioning for Law Enforcement</td>
<td>3.0</td>
</tr>
<tr>
<td>SPAN 66</td>
<td>Spanish for Fire and Police Personnel</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Recommended Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORS 30</td>
<td>Ethnic Relations in Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 40</td>
<td>Crime and Delinquency</td>
<td>3.0</td>
</tr>
<tr>
<td>CORS 45</td>
<td>The Violent Offender</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units: 30.0

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 coursework in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate in 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 in Science degree in Nursing or completing the LVN 30-Unit Option track which leads to a certificate, not a degree.

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 (3) semester units with a minimum grade of C. 5. PSYC 1A Introduction to Psychology.
6. CHILD 10 Child Growth and Development or ENGL 1A Freshman Composition or ENGL 1AH Freshman Composition - Honors
7. CHLD 10H Child Growth and Development or ENGL 1A Freshman Composition or ENGL 1AH Freshman Composition - Honors
8. NURS 5 Medical-Surgical Nursing: 7.5 CSU
9. NURS 6 Pediatric Nursing: 3.0 CSU
10. NURS 7 Medical-Surgical Nursing: 7.5 CSU
11. NURS 11 Preceptorship in Nursing: 2.0 CSU

Requirements for the Major

Total Units: 29.0

Requirements for the License

ANAT 35 Human Anatomy: 5.0 CSU,UC
ANAT 36 Human Physiology: 5.0 CSU,UC
ANAT 10A Introductory Human Anatomy: 4.0 CSU,UC
ANAT 10B Introductory Human Physiology: 4.0 CSU,UC
MICR 1 Principles of Microbiology: 5.0 CSU,UC
MICR 22 Microbiology: 4.0 CSU,UC
ENGL 1A Freshman Composition: 4.0 CSU,UC
ENGL 1AH Freshman Composition - Honors: 4.0 CSU,UC
CHILD 10 Child Growth and Development: 3.0 CSU
CHILD 10H Child Growth and Development - Honors: 3.0 CSU
PSYC 1A Introduction to Psychology: 3.0 CSU
SPCH 1A Public Speaking: 4.0 CSU
SPCH 1AH Public Speaking - Honors: 4.0 CSU

Total Units: 28.0 - 31.0

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 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 serve 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.

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.

ALL APPLICANTS ARE REQUIRED TO MEET THE ESSENTIAL FUNCTIONS FOR SUCCESS IN THE NURSING PROGRAM.
Programs Leading to an Associate degree

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.

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 or faculty 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
AGAG 1 Food Production, Land Use and Politics - A Global Perspective 3.0 CSU,UC
AGAG 59 Work Experience in Agriculture 1.0 – 4.0
AGAN 1 Animal Science 3.0 CSU
AGAN 2 Animal Nutrition 3.0 CSU
AGAN 4 Animal Breeding 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 30 Beef Production 3.0 CSU
AGLI 34 Livestock Judging and Selection 2.0 CSU,UC
AGLI 96 Animal Sanitation and Disease Control 3.0 CSU
PLUS Select six (6) units from:
AGOR 53 Small Engine Repair I 3.0 CSU
AGOR 71 Landscape Construction 3.0 CSU
AGOR 100 Animal Nutrition 3.0 CSU
AGOR 85 Animal Breeding 3.0
AGOR 90 Livestock Management 3.0
AGOR 94 Animal Diseases 3.0
AGOR 95 Animal Genetics 3.0
AGOR 96 Animal Nutrition 3.0
AGOR 97 Animal Behavior 3.0
AGOR 98 Animal Reproduction 3.0
AGOR 99 Animal Health Management 3.0

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:
MFG 10 Mathematics and Blueprint Reading for Manufacturing 3.0
MFG 11 Manufacturing Processes I 2.0 CSU
MFG 12 Manufacturing Processes II 2.0 CSU
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 38 MasterCAM I 2.0 CSU
MFG 38B MasterCAM II 2.0 CSU
MFG 39 SurfCAM I 2.0 CSU
MFG 39B SurfCAM II 2.0 CSU
MFG 85 Manual Computerized 2.0 CSU
PLUS Select two (2) courses from:
MFG 27 Autodesk Manufacturing 2.0
WELD 40 Introduction to Welding 2.0 CSU

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:
BUSO 5 Business English 3.0
BUSO 7 Principles of Accounting 5.0 CSU,UC
or
BUSO 7 Financial Accounting 5.0
BUSO 20 Principles of Business 3.0 CSU,UC
BUSM 61 Business Organization and Management 3.0
BUSO 25 Business Communications 3.0 CSU
BUSO 35 Professional Selling 3.0 CSU
BUSO 36 Principles of Marketing 3.0
WELD 70 International Marketing Concepts 3.0
BUSO 85 Special Issues in Marketing 2.0
CSIS 15 Microcomputer Applications 4.0 CSU,UC
PLUS
Select one (1) course from:
BUSO 1A Principles of Economics 3.0 CSU,UC
or
BUSO 1AH Principles of Economics - Macroeconomics 3.0 CSU,UC
BUSO 1B Principles of Economics - Microeconomics 3.0 CSU,UC
BUSO 1BH Principles of Economics - Microeconomics - Honors 3.0 CSU,UC
BUSO 17 Applied Business Statistics 3.0 CSU,UC
BUSO 60 Human Relations in Business 3.0 CSU
BUSO 5 Business English 3.0
Total Units 27.0

2011-12 Mt. San Antonio College Catalog
Mental Health Technology - Psychiatric Technician
Psychiatric Technician Department
Major S1208

Completion of coursework leads to an Associate in Science degree. The Psychiatric Technology 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 for Psychiatric Technicians 9.0
- MENT 56L Clinical Experience 4.0
- MENT 56D 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 5.5
- MENT 73L Psychiatric Nursing for Psychiatric Technicians Clinical 5.5
- MENT 73T Psychiatric Nursing for Psychiatric Technicians 6.0
- MENT 82 Work Experience in Mental Health Technology 2.0
- PSYC 1A Introduction to Psychology 3.0
- PSYC 1AH Introduction to Psychology - Honor 3.0

Total Units 54.0

Special Information

Additional general education courses needed for completion of the Associate in Science degree 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 schedule 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 "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 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.

Physical Demands:
- 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 criterion for admission into the Mental Health Technology-Psychiatric Technician Program, students must be able to speak, write and read English to ensure patient safety and to complete classes successfully.
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 coursework in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate 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. Eligibility for Math 51
5. English 1A (Writing Composition) minimum of three (3) semester units with a minimum grade of C.

Requirements for the Major

ANAT 35 Human Anatomy and Physiology 5.0 CSU
ANAT 36 Human Physiology 5.0 CSU
ANAT 10A Introductory Human Anatomy and Physiology 4.0 CSU
ANAT 10B Introductory Human Physiology 4.0 CSU
MICR 1 Principles of Microbiology 5.0 CSU
MICR 22 Microbiology 4.0 CSU
ENGL 1A Freshman Composition 4.0 CSU
ENGL 1AH Freshman Composition - Honors 4.0 CSU
CHILD 10H Child Growth and Development - Honors 3.0 CSU
PSYC 1C Introduction to Psychology 3.0 CSU
PSYC 1CH Introduction to Psychology - Honors 3.0 CSU
SPCH 1A Public Speaking 4.0 CSU
SPCH 1AH Public Speaking - Honors 4.0 CSU

Total Units 28.0 - 31.0

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 criterion for admission into the Nursing Program, students must be able to speak, write and read English to ensure patient safety and to complete classes successfully.

Ornamental Horticulture
Agricultural Sciences Department
Major S0119
The course in ornamental horticulture is designed to enable students to prepare for exciting careers in the essential and diverse horticulture profession. Careers in nursery management, retail garden centers, landscape design, installation and maintenance, arborist and botanical 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 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. 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.mtsac.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 - 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 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
CS15 Microcomputer Applications 4.0 CSU,UC
Total Units 43.0 - 46.0

Paralegal/Legal Assistant
Business Administration
Major 50310
The paralegal 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 California Business & Professions Code, §6450 et seq. governs paralegals in California.
Requirements for the Major
Required courses:
PLGL 30 Introduction to Paralegal 3.0 CSU
PLGL 31A Legal Analysis and Writing 3.0
PLGL 33A Civil Procedure - Pre-Trail 3.0 CSU
PLGL 35A Law Office Procedures 3.0 CSU
PLGL 37 Tort Law 3.0
PLGL 38 Employment and Ethical Issues in Paralegality 2.0 CSU
PLGL 39 Contract Law 3.0 CSU
PLUS
Choose two courses from:
PLGL 40 Landlord-Tenant Law 3.0 CSU
PLGL 41 Property Law 3.0 CSU
PLGL 42 Family Law 3.0 CSU
PLGL 43 Wills and Trusts 3.0 CSU
PLGL 44 Bankruptcy Law 3.0 CSU
PLGL 45 Attorney's Rights 3.0 CSU
PLGL 48 Criminal Law and Procedures 3.0 CSU
PLGL 49 Evidence Law 3.0 CSU
PLGL 50 Comparative Law 3.0
BUSL 18 Business Law 3.0 CSU,UC
BUSL 18H Business Law - Honors 3.0 CSU,UC
BUSL 19 Advanced Business Law 3.0 CSU,UC
BUSL 20 International Business Law 3.0
Total Units 35.0

Park and Sports Turf Management
Agricultural Sciences Department
Major 50116
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 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. 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 about personnel management, budgeting and other management topics.
Requirements for the Major
Required courses:
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 39 Turf Grass Production and Management 3.0
AGOR 40 Sports Turf Management 3.0 CSU
AGOR 49 Soil Science and Management 3.0
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 CSU
AGOR 71 Landscape Construction Fundamentals 3.0 CSU
AGOR 72 Landscape Irrigation - Trees and Woody Shrubs 3.0 CSU,UC
AGOR 75 Urban Arboriculture 3.0
AGOR 86 Animal Handling and Restraint 3.0 CSU
AGAN 1 Animal Science 3.0 CSU,UC
AGAN 2 Animal Nutrition 3.0 CSU
AGAN 4 Animal Breeding 3.0 CSU
AGLI 96 Animal Sanitation and Disease Control 3.0 CSU
AGPE 71 Reptile Management 2.0
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 46.0 - 49.0

Pet Science
Agricultural Sciences Department
Major 50104
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 plan 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 3.0 CSU,UC
AGAN 1 Animal Science 3.0 CSU,UC
AGAN 2 Animal Nutrition 3.0 CSU
AGAN 51 Animal Handling and Restraining 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
Total Units 34.0
Programs Leading to an Associate degree

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 1: Laboratory Studies:
- PHOT 10: Basic Digital
- PHOT 11: Advanced Professional
- PHOT 12: Photographic Alternatives
- PHOT 14: Commercial Lighting
- PHOT 15: History of Photography
- PHOT 16: Fashion Photography
- PHOT 17: Photocommunication
- PHOT 20: Color Photography
- PHOT 21: Exploring Color Photography
- PHOT 28: Photography Portfolio Development
- PHOT 30: Commercial and Illustrative Photography

Recommended Electives:
- ARB 1: Understanding the Visual Arts
- ARB 1: Understanding the Visual Arts
- GRAP 10: Photoshop Imagery
- PHOT 1: Laboratory Studies:
- PHOT 24: Exploring Color Photography
- PHOT 25: Digital Capture Work Flow

Requirements for the Major
Required courses:
- ANAT 35: Human Anatomy
- ANAT 36: Human Physiology
- NF 10: Nutrition for Personal Health and Wellness
- NF 25H: Essentials of Nutrition
- PE 3: First Aid and CPR
- PE 5: Advanced First Aid/CPR/Emergency Response
- PE 17: Introduction to Physical Education
- PE 19: Introduction to Care/Prevention of Activity/Sports-Related Injuries
- PE 24: Fitness for Living

Select eight (8) courses from:
- DANCE: Dance: Activity
- PE-A: Physical Education: Aquatics
- PE-F: Physical Education: Fitness
- PE-I: Physical Education: Individual
- PE-L: Physical Education: Adaptive
- PE-S: Physical Education: Team Sports

Total Units: 28.6 - 41.5

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 coursework in nursing, science, general education and clinical nursing practice at local hospitals and health agencies. Graduates of the program receive an Associate in 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 Nursing 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.
5. PSYC 1A Introduction to Psychology
6. CHLD 10 Child Growth and Development or
6. PSYC 14 Developmental Psychology

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.
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 current California Psychiatric Technician License.
6. Criminal background check and drug screening must be passed prior to any patient contact.
7. A physical examination, including specific immunizations is required of all 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.

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 Psychiatric Technician License, physical, CPR card, Background Check, and drug test prior to the start of class.

Requirements for Nursing
Required courses:
- NURS 3: Medical-Surgical Nursing: Locomotion 3.5 CSU,UC
- NURS 4: Maternity Nursing 3.0 CSU
- NURS 6: Pediatric Nursing 3.0 CSU
- NURS 7: Medical-Surgical Nursing: 7.0 CSU

Total Units: 28.0 - 31.0

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 22.
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 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 Counseling/Educational Advisor that this applies to you.

- 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

Requirements for the Associate degree

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
- 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

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 life issues
- Exposed to products containing latex

English Language Skills:
Although proficiency in English is not a criterion for admission into the Nursing Program, students must be able to speak, write and read English to ensure patient safety and to complete classes successfully.
Radiologic Technology

Radiologic Technology Department

Major S1206

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 “C” or better in all courses.

Upon completion of the Associate in 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 Card is required to obtain state certification and national licensure.

Requirements for the Major

**Required courses:**

- **ANAT 10A** Introductory Human Anatomy 4.0 CU, UC
- **MEDT 90** Medical Terminology 3.0 CU
- **RAD 30** Radiographic Pathology 1.5
- **RAD 31** Fluoroscopy 2.0
- **RAD 32** Digital Imaging in Radiology 2.0
- **RAD 50** Radiologic Technology 3.0 CU
- **RAD 52A** Techniques of Radiologic Technology 5.0 CU
- **RAD 52B** Techniques of Radiologic Technology 2.5 CU
- **RAD 53** Techniques of Radiologic Technology 5.0 CU
- **RAD 54** Techniques of Radiologic Technology 3.0 CU
- **RAD 55A** Techniques of Radiologic Technology 7.5 CU
- **RAD 55B** Techniques of Radiologic Technology 2.5 CU
- **RAD 56** Techniques of Radiologic Technology 7.0 CU
- **RAD 57** Techniques of Radiologic Technology 4.5 CU
- **RAD 61A** Theory of Radiologic Technology 4.0 CU
- **RAD 61B** Radiographic Positioning 3.0 CU
- **RAD 61C** Radiologic Technology Seminar 1.5 CU
- **RAD 62A** Theory of Radiologic Technology 4.0 CU
- **RAD 62B** Radiographic Positioning 3.0 CU
- **RAD 62C** Radiologic Technology Seminar 1.5 CU
- **RAD 63** Theory of Radiologic Technology 4.0 CU
- **RAD 64** Theory of Radiologic Technology 4.0 CU
- **RAD 91** Nursing Procedures 1.5 CU

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RAD 52A</td>
<td>Theory of Radiologic Technology</td>
<td>5.0</td>
</tr>
<tr>
<td>RAD 61A</td>
<td>Theory of Radiologic Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>RAD 61B</td>
<td>Radiographic Positioning</td>
<td>3.0</td>
</tr>
<tr>
<td>RAD 61C</td>
<td>Radiologic Technology Seminar</td>
<td>1.5</td>
</tr>
<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>
<td>3.0</td>
</tr>
<tr>
<td>RAD 62C</td>
<td>Radiologic Technology Seminar</td>
<td>1.5</td>
</tr>
<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>1.5</td>
</tr>
</tbody>
</table>

**Total Units: 79.0**

**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:

- Applicant must be 18 years of age upon entrance into the program.
- High school graduate or equivalent.
- 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.
- File a college application and be accepted as a student at Mt. San Antonio College.
- Take the college placement examination which is required 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.
- 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.
- 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.
- 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.
- 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.
- Forward two official 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.
- Students will gain knowledge and understanding of the nature of radiation, the principles of radiation protection, the basics of health science, and the field of radiologic technology.

### 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, blood 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, cultural and ethnic background. The radiologic technology student must have sufficient strength, motor coordination, manual dexterity, intellectual capacity, and sensory functions to be able to:
  - Transport, move, lift, or transfer patients from a bed, wheelchair or gurney to an x-ray table or to a patient bed.
  - Lift arms above the head to move the x-ray tube assembly.
  - Move, adjust, and manipulate portable and fluoroscopic equipment according to established procedures and standards of speed and accuracy while conducting radiographic examinations.

### Acceptance Requirements:

- 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.
- 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.
- 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:

- 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.
- A course in mammography is also offered in the final semester for graduate students and licensed radiographers. This course is optional.

### 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:

- Transport, move, lift, or transfer patients from a wheelchair or gurney to an x-ray table or to a patient bed.
- Lift arms above the head to move the x-ray tube assembly.
- 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 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 respond to directions or calls for help from individuals remote from the location of the student.

i) Speak English clearly enough to explain and direct procedural information to patients, and to communicate with physicians, technical staff, and faculty. Students for which English is a second language may be required to complete a verbal communication assessment prior to entering the program.

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 “C” number), and other established technical qualities.

English Language Skills:

Although proficiency in English is not a criterion for admission into the Radiologic Technology Program, students must be able to speak, write and read English to ensure patient safety and to complete classes successfully.

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 a counselor or 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 courses designed to strengthen the skills needed to succeed in a career in real estate.

Requirements for the Major
Required courses:
- BUSR 50 Real Estate Principles 3.0 CSU
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 52 Real Estate Practice, or 3.0
- BUSR 52D Real Estate Practice 3.0
- BUSR 53 Real Estate Finance 3.0
- BUSR 55 Real Estate Economics 3.0
- BUSR 81 Appraisal: Principles and Procedures 3.5
- CSIS 15 Microcomputer Applications 4.0 CSU, UC
- PLUS

Group A
Select two (2), three (3) or four (4) courses from:
- BUSR 57 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 59 Real Estate Property Management I 3.0
- BUSR 60 Real Estate Investment Planning 3.0
- BUSR 62 Mortgage Loan Brokering and Lending 3.0
- BUSR 76 Escrow Procedures I 3.0

PLUS

Group B
Select zero (0), one (1) or two (2) courses from:
- BUSA 7 Principles of Accounting 5.0 CSU, UC - Financial
- BUSA 11 Fundamentals of Accounting 3.0
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSL 18 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 66 Small Business Management 3.0 CSU
- BUSO 5 Business English 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSO 26 Oral Communications for Business 3.0
- BUSU 35 Professional Selling 3.0 CSU
- BUSU 36 Principles of Marketing 3.0 CSU
- PSYC 1A Introduction to Psychology 3.0 CSU, UC

Total Units 34.5 - 44.5

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:
- BUSR 81 Appraisal Principles and Procedures 3.5
- BUSR 82 Uniform Standards of Professional Appraisal Practice 1.0
- BUSR 83 Residential Appraisal 3.5
- BUSR 84 Residential Appraisal: Case Studies 2.5
- PLUS

Select seven (7) 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 53 Real Estate Finance 3.0
- BUSR 55 Real Estate Economics 3.0
- BUSR 57 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 59 Real Estate Property Management I 3.0
- BUSR 76 Escrow Procedures I 3.0
- CSIS 15 Microcomputer Applications 4.0 CSU, UC
- insp 70 Elements of Construction 3.0 CSU

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:
- 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 CSU
- AGHE 54 Veterinary Office Procedures 3.0
- AGLI 96 Animal Sanitation and Disease Control 3.0 CSU

Required courses 2nd year:
- AGHE 60 Medical Nursing and Animal Care 4.0 CSU
- AGHE 61 Surgical Nursing 4.0 CSU
- AGHE 62A Clinical Pathology 4.0 CSU
- AGHE 62B Clinical Pathology 4.0 CSU
- AGHE 64 Veterinary Pharmacology 3.0 CSU
- AGHE 65 Veterinary Radiography 2.0 CSU
- AGHE 79 Laboratory Animal Medicine 3.0 CSU
- AGHE 84A Applied Animal Health Procedures 1.0
- AGHE 84B Applied Animal Health Procedures 1.0
- AGHE 85 Seminar in Animal 1.0 Health
- AGHE 86 Anatomy and Physiology of Domestic Animals 4.0

PLUS

Select four (4) units of work experience:
- AGHE 83A Work Experience in Animal Health I 1.0 – 2.0

PLUS

Select six (6) units from:
- AGLI 112 Exotic Animal Management 3.0
- AGLI 114 Swine Production 3.0 CSU
- AGLI 116 Horse Production 4.0 CSU, UC
- AGLI 117 Sheep Production 3.0 CSU
- AGLI 118 Horse Ranch Management 4.0 CSU
- AGLI 19 Horse Hoof Care 2.0 CSU
- AGLI 30 Beef Production 3.0 CSU
### Programs Leading to an Associate degree

<table>
<thead>
<tr>
<th>Program</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AGPE 70</td>
<td>Pet Shop Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGPE 71</td>
<td>Canine Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGPE 72</td>
<td>Feline Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGPE 73</td>
<td>Tropical and Coldwater Management Programs</td>
<td>2.0</td>
</tr>
<tr>
<td>AGPE 74</td>
<td>Reptile Management</td>
<td>2.0</td>
</tr>
<tr>
<td>AGPE 76</td>
<td>Aquaculture - Cage and Aviary Birds</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units:** 58.0

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### 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 the ability to perform fine motor movements with hands and fingers is required in performing the operation of specialized equipment. This includes diagnostic apparatus which aids the physician in detecting cardiopulmonary 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 Physiology 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:** 58.0

#### 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.

#### Other Requirements:

- RESD 50 pre-requisites ANAT 10A/10B, CHEM 10, MATH S1 must be completed prior to entering the program.
- 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
- 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

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**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 odious 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 criterion for admission into the Respiratory Therapy Program, students must be able to speak, write and read English to ensure patient safety and to complete classes successfully.

#### 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 in 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 certification will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

#### Readmission Policy

To remain in the program, students must maintain a “C” or better grade in all courses. Students who are dropped, failed, or withdrew from the program may request readmission for the following year in the semester in which they were stopped or may re-start the program. Students who re-start the program will be required to retake all Respiratory Therapy courses even if satisfactory grades were received. Re-entry may occur only one time.
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 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 in Science degree in Sign Language/Interpreting.

Requirements for the Major

Required courses:
SIGN 104 American Sign Language 5
SIGN 108 Fingerspelling 2.0
SIGN 201 Deaf Perspectives 3.0
SIGN 202 American Deaf Culture 3.0 CSU
SIGN 210 American Sign Language Structure 3.0 CSU
SIGN 220 Translation: American Sign Language/English 3.0 CSU
SIGN 223 Principles of Interpreting 3.0 CSU
SIGN 225 Ethical Decision Making for Interpreters 2.0
SIGN 227 Cognitive Processing for Interpreters 4.0
SIGN 231 Interpreting 4.0
SIGN 232 Advanced Interpreting 4.0
SIGN 239 Practicum 1.0
PLUS
Select three (3) courses from:
SIGN 99 Special Projects 2.0 in Sign Language/Interpreting
SIGN 238 Oral Transliteration 3.0
SIGN 240 Vocabulary Building 2.0 CSU for Interpreters
SIGN 250 Interpreting with Classifiers 1.5
SIGN 260 Video Interpreting 1.5
SL 2 Linked Service Learning 1.0 CSU
Total Units 40.0 - 43.0

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:
BUSS 7 Principles of Accounting 5.0 CSU,UC - Financial Quality Improvement
BUSSM 10 Principles of Continuous Improvement 3.0
BUSSM 20 Principles of Business 3.0 CSU
BUSSM 60 Human Relations in Business 3.0 CSU
BUSSM 61 Business Organization and Management 3.0 CSU
BUSSM 62 Human Resource Management 3.0
BUSSM 66 Small Business Management 3.0 CSU
BUSSM 36 Principles of Marketing 3.0 CSU
CSB 15 Microcomputer Applications 4.0 CSU,UC
Total Units 30.0

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

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 in 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 19A Beginning Television Production 3.0 CSU
R-TV 19B Advanced Television Production 3.0 CSU
R-TV 22 Editing for Film and Television 3.0
R-TV 100 Work Experience in Film and TV 1.0 - 3.0
PLUS
Select 12.0-12.5 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 23 Reality Show Production 3.0
Total Units 28.0 - 30.5

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

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.

Requirements for the Major

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 70A Beginning Arc Welding 3.0
WELD 70B Intermediate Arc Welding 3.0
WELD 70C Certification for Welders 3.0
WELD 80 Construction Fabrication and Welding 3.0
Total Units 21.0

Recommended Electives:
BUSSM 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 Associate degree
## Associate in 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
- Social & Behavioral Sciences

Mt. San Antonio College's Associate in 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 in 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 in Arts in Liberal Arts and Sciences, Emphasis in (specified 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

**Choose one**

#### Associate in 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, 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>
</tr>
</thead>
<tbody>
<tr>
<td>BUSB 25</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 20</td>
<td>Principles of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 7</td>
<td>Principles of Accounting - Financial</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSA 8</td>
<td>Principles of Accounting</td>
<td>5.0</td>
</tr>
<tr>
<td>BUSB 18</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSB 17</td>
<td>Applied Business Statistics</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSB 1B</td>
<td>Principles of Economics - Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>BUSB 1BH Principles of Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>CISE 15</td>
<td>Microcomputer Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>CISE 11</td>
<td>Computer Information Systems</td>
<td>3.5</td>
</tr>
<tr>
<td>Plus select a minimum of three courses from the following which should be selected in consultation with a counselor or educational advisor.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Elective Course:

<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>Total Units</td>
<td></td>
<td><strong>18.5 - 23.0</strong></td>
</tr>
</tbody>
</table>

#### Associate in 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 human interaction within multiple cultural contexts.

### Core/Required Courses (7 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 1A</td>
<td>Public Speaking</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
<td>SPCH 1AH Public Speaking - Honors</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 2</td>
<td>Fundamentals of Communication</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 26</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>SPCH 26H Interpersonal Communication - Honors</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Plus

Select 11 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 1A</td>
<td>Public Speaking</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
<td>SPCH 1AH Public Speaking - Honors</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 1B</td>
<td>Intermediate Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>SPCH 8 Professional and Organizational Speaking - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 3</td>
<td>Voice and Diction</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 4</td>
<td>Performance of Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 6</td>
<td>Group Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 7</td>
<td>Intercultural Communication</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 8</td>
<td>Professional and Organizational Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 8H</td>
<td>Professional and Organizational Speaking - Honor</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 15</td>
<td>Forensics Team</td>
<td>2.0</td>
</tr>
<tr>
<td>SPCH 16</td>
<td>Forensics - Individual Events</td>
<td>2.0</td>
</tr>
<tr>
<td>SPCH 17</td>
<td>Forensics - Debate</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Associate in 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 theories and practices 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 6 units from the list of approved electives.

### Core/Required Courses (24 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTD 15A</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>Beginning Painting I</td>
<td>3.0</td>
</tr>
<tr>
<td>AHS 4</td>
<td>History of Western Art - Prehistoric Through Gothic - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>AHS 4H History of Western Art - Prehistoric Through Gothic - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>AHS 5</td>
<td>History of Western Art - Renaissance Through Modern - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>AHS 5H History of Western Art - Renaissance Through Modern - Honors</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Select two studio electives

Select six (6) units from the following:

ANIM 10A  Drawing - Gesture and Figure  3.0
ARTB 14  Basic Studio Arts  3.0
ARTC 100  Graphic Design  3.0
ARTC 165  Illustration  3.0
ARTD 15B  Drawing: Intermediate  3.0
ARTD 16  Drawing: Perspective  3.0
ARTD 17B  Drawing: Life  3.0
ARTD 27  Painting: Watercolor  3.0
ARTD 43A  Introduction to Printmaking  3.0
ARTD 44A  Printmaking: Introduction to  3.0
Lithography
ARTD 45A  Printmaking: Introduction to  3.0
Screen Printing
ARTG 20  Art, Artists and Society  3.0
ARTG 21A  Introduction to Exhibition  3.0
Production
ARTS 30A  Ceramics: Beginning I  3.0
ARTS 33  Ceramics: Hand Construction  3.0
ARTS 40A  Sculpture: Beginning  3.0
ARTS 41A  Sculpture: Life  3.0
PHOT 10  Basic Digital  3.0
and Film Photography
Total Units  30.0 for Area of Emphasis

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Humanities

Degree A8984

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 11A  Music Literature Survey  3.0
MUS 11B  Music Literature Survey  3.0
MUS 12  History of Jazz  3.0
MUS 13  Introduction to Music Appreciation  3.0
or
MUS 13H  Introduction to Music Appreciation - Honors  3.0

MUS 14A  World Music  3.0
MUS 14B  American Folk Music  3.0
MUS 15  Rock Music History  3.0
and Appreciation
Art History:
AHIS 3  History of Women  3.0
and Gender in Art  or
AHIS 3H  History of Women  3.0
and Gender in Art - Honors  or
AHIS 4  History of Western Art: Prehistoric Through Gothic  or
AHIS 4H  History of Western Art: Prehistoric Through Gothic - Honors  or
AHIS 5  History of Western Art: Renaissance Through Modern  or
AHIS 5H  History of Western Art: Renaissance Through Modern - Honors  or
AHIS 6  History of Modern Art  3.0
or
AHIS 6H  History of Modern Art - Honors  3.0
AHIS 9  History of Asian Art  3.0
AHIS 10  A History of Greek and Roman Art and Architecture  3.0
AHIS 11  History of African, Oceanic and Native American Art  3.0
AHIS 12  History of Precolumbian Art  3.0
or
AHIS 12H  History of Precolumbian Art - Honors  3.0
ARCH 31  World Architecture I  3.0
or
ARCH 32  World Architecture II  3.0
Philosophy and Political Science:
PHIL 12  Ethics  3.0
or
PHIL 12H  Ethics - Honors  3.0
PHIL 20A  History of Western Philosophy  3.0
PHIL 20H  History of Western Philosophy - Honors  or
PHIL 20BH  History of Western Philosophy - Honors  or
PHIL 20AH  History of Western Philosophy - Honors  or
PHIL 20B  History of Western Philosophy  3.0
PHIL 20BH  History of Western Philosophy - Honors  or
PHIL 20H  History of Western Philosophy  3.0
PHIL 20  History of Western Philosophy  3.0
PHIL 20AH  History of Western Philosophy - Honors  or
PHIL 20BH  History of Western Philosophy - Honors  or
PHIL 20H  History of Western Philosophy  3.0
POLI 5  Political Science Theory  3.0
POLI 9  Introduction to International Relations  3.0
English and Dramatic Arts Literatures:
FRCH 60  French Culture Through Cinema  3.0
ITAL 60  Italian Culture Through Cinema  3.0
LIT 10  Survey of Shakespeare  3.0
LIT 11A  World Literature  3.0
LIT 11B  World Literature  3.0
LIT 15  Introduction to Cinema  3.0
SPCH 4  Oral Interpretation of Literature  3.0
THTR 10  History of Theater Arts  3.0
Religion and Literatures:
PHIL 15  Major World Religions  3.0
PHIL 15H  Major World Religions - Honors  or
PHIL 15M  Major World Religions - Honors  or
LIT 36  Introduction to Mythology  3.0
LIT 46  The Bible as Literature: Old Testament  3.0
LIT 47  The Bible as Literature: New Testament  3.0
History:
HIST 3  History of World Civilization  3.0
HIST 3H  History of World Civilization - Honors  or
HIST 4  History of World Civilization  3.0
HIST 4H  History of World Civilization - Honors  or
HIST 10  History of Asia  3.0
HIST 11  History of Asia  3.0
HIST 16  The Wild West  3.0
- A History, 1800-1890  or
HIST 19  History of Mexico  3.0
HIST 35  History of Africa  3.0
HIST 44  History of Native Americans  3.0

Total Units  30.0 - 21.0 - 25.0 for Area of Emphasis

Foreign Languages:
ARAB 2  Continuing Elementary Arabic  4.0
CHIN 2  Continuing Elementary Chinese  4.0
CHIN 3  Intermediate Chinese  4.0
FRCH 2  Continuing Elementary French  4.0
FRCH 3  Intermediate French  4.0
GERM 2  Continuing Elementary German  4.0
GERM 3  Intermediate German  4.0
ITAL 2  Continuing Elementary Italian  4.0
ITAL 3  Intermediate Italian  4.0
JAPN 2  Continuing Elementary Japanese  4.0
JAPN 3  Intermediate Japanese  4.0
SPAN 11  Spanish for the Spanish Speaking  4.0
SPAN 12  Continuing Spanish  4.0
for the Spanish Speaking
SPAN 2  Continuing Elementary Spanish  4.0
SPAN 3  Intermediate Spanish  4.0
SIGN 101  American Sign Language 1  4.0
SIGN 102  American Sign Language 2  4.0

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Information Technology

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  3.5
CISB 15  Microcomputer Applications  4.0

Software Development
(4 units selected from the following):
CISP 11  Programming in Visual Basic  4.0
CISP 21  Programming in Java  4.0
CISP 31  Programming in C++  4.0
CISP 41  Programming in C#  4.0
CISW 21  Secure Client Side  4.0
Web Programming
CISW 24  Secure Server Side  4.0
Web Programming

Database Technology
(4 units selected from the following):
CISD 11  Database Management - Microcomputers  4.0
Programs Leading to an Associate degree

**Operating Systems and Networking**
(4 units selected from the following):
- CSIS 11 Telecommunications Networking 4.0
- CSIS 21 Windows Operating System 4.0
- CSIS 33 Linux Operating System 4.0

**Security (4 units selected from the following):**
- CISS 13 Principles of Information Security 4.0
- CISS 15 Operating Systems Security 4.0
- CISS 17 Network Vulnerabilities 4.0
- CISS 21 Countermeasures 4.0

**Total Units** 19.5 – 20.0

**Recommended Electives:**
- BUSA 7 Principles of Accounting – Financial Management 4.0
- BUSM 20 Principles of Business 4.0
- BUSM 60 Human Relations in Business 4.0
- BUSS 25 Business Communications 4.0
- CISB 31 Microsoft Word 4.0
- CISB 36 Principles of Marketing 4.0
- CISN 11 Systems Analysis and Design 4.0
- R-TV 17 Internet Radio and Podcasting 4.0
- SPCH 26 Interpersonal Communication 4.0
- SPCH 26H Interpersonal Communication - Honors 4.0

**Associate in Arts degree in Liberal Arts and Sciences**

**Emphasis in Kinesiology and Wellness**
Degree A8986
An emphasis in Kinesiology and Wellness provides the student with an understanding of physical education, health promotion, and the mechanics of human bodily 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.

**Physical Education, Movement, and Health Promotion**
(A minimum of 6 units selected from the following):
- PE 3 First Aid and CPR 3.0
- PE 5 Advanced First Aid/CPR/ Emergency Response 3.0
- PE 13 Sports Officiating 3.0
- PE 17 Introduction to Physical Education 3.0

**Additional Courses**
- PE 19 Introduction to Care 3.0
- Prevention of Activity/Sports-Related Injuries 3.0
- PE 34 Fitness for Living 3.0
- PE 39 Techniques of Fitness Testing 2.0
- PE 44 Theory of Coaching 3.0
- DN-T 18 Introduction to Dance 3.0
- DN-T 20 History and Appreciation of Dance 3.0

**Scientific and Nutrition Background**
(A minimum of 3 units selected from the following):
- ANAT 10A Introductory Human Anatomy 4.0
- ANAT 35 Human Anatomy 5.0
- ANAT 10B Introductory Human Physiology 4.0
- ANAT 36 Human Physiology 5.0
- CHEM 10 Chemistry for Allied Health Majors 4.0
- CHEM 40 Introduction to General Chemistry 4.0
- Mirc 1 Principles of Microbiology 5.0
- Mirc 22 Microbiology 4.0
- PHYS 1 Physics 4.0
- PHYS 2AG General Physics 4.0
- PSYC 1B Biological Psychology 3.0
- BIOL 1 General Biology 4.0
- BIOL 5 Contemporary Health Issues 3.0
- BIOL 13 Human Reproduction, Development and Aging 3.0
- NF 10 Nutrition for Personal Health and Wellness 3.0
- NF 25 Essentials of Nutrition 3.0
- NF 25H Essentials of Nutrition - Honors 3.0

**Behavioral Development and Diversity**
(A minimum of 3 units selected from the following):
- PSYC 1A Introduction to Psychology 3.0
- PSYC 1AH Introduction to Psychology - Honors 3.0
- PSYC 3 Introduction to Research 4.0
- PSYC 17 Methods in Psychology 3.0
- PSYC 26 Psychology of Sexuality 3.0

**Recommended Electives:**
- CISS 15 Operating Systems Security 4.0
- CISS 17 Network Vulnerabilities 4.0
- CISS 21 Countermeasures 4.0

**Total Units** 19.5 – 20.0

**Programs Leading to an Associate degree**

**Security (4 units selected from the following):**
- CISS 13 Principles of Information Security 4.0
- CISS 15 Operating Systems Security 4.0
- CISS 17 Network Vulnerabilities 4.0
- CISS 21 Countermeasures 4.0

**Recommended Electives:**
- BUSA 7 Principles of Accounting – Financial Management 4.0
- BUSM 20 Principles of Business 4.0
- BUSM 60 Human Relations in Business 4.0
- BUSS 25 Business Communications 4.0
- CISB 31 Microsoft Word 4.0
- CISB 36 Principles of Marketing 4.0
- CISN 11 Systems Analysis and Design 4.0
- R-TV 17 Internet Radio and Podcasting 4.0
- SPCH 26 Interpersonal Communication 4.0
- SPCH 26H Interpersonal Communication - Honors 4.0

**Associate in 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):
- CHLD 51 Early Literacy in Child Development 3.0
- ENGL 1C Critical Thinking and Writing 4.0
- ENGL 1CH Critical Thinking and Writing - Honors 4.0
- PHIL 9 Critical Thinking and Logical Writing 3.0
- ENGL 81 Language Acquisition 3.0

**Recommended Electives:**
- CISS 15 Operating Systems Security 4.0
- CISS 17 Network Vulnerabilities 4.0
- CISS 21 Countermeasures 4.0

**Total Units** 19.5 – 20.0
### Programs Leading to an Associate degree

#### Associate in 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 courses in computer science programming options.

**Core/Required Courses (15 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110H Elementary Statistics - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 115</td>
<td>3.0</td>
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<tr>
<td>MATH 120</td>
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<tr>
<td>CHEM 50</td>
<td>5.0</td>
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<tr>
<td>CHEM 5OH</td>
<td>5.0</td>
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<td>CHEM 51H</td>
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<tr>
<td>PHYS 4A</td>
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<tr>
<td>PHYS 4C</td>
<td>5.0</td>
</tr>
<tr>
<td>Total Units</td>
<td>18.0</td>
</tr>
</tbody>
</table>

**Associate in Arts degree in Liberal Arts and Sciences**

**Emphasis in Music**

**Degree A8988**

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)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 17A</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 17B</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 18</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 22</td>
<td>1.0</td>
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<tr>
<td>Piano (2 units selected from the following):</td>
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</tr>
<tr>
<td>MUS 11A</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 16</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 24</td>
<td>1.0</td>
</tr>
<tr>
<td>Performance Ensemble (1-3 units selected from the following):</td>
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</tr>
<tr>
<td>MUS 27</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 30</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 31</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 32</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 34</td>
<td>2.0</td>
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<tr>
<td>MUS 36</td>
<td>2.0</td>
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<tr>
<td>MUS 38</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 39</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 40</td>
<td>1.0</td>
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<tr>
<td>Recommended Electives:</td>
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</tr>
<tr>
<td>MATH 100</td>
<td>3.0</td>
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<tr>
<td>MATH 110</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 110H</td>
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<tr>
<td>Total Units</td>
<td>18.0</td>
</tr>
</tbody>
</table>
Associate in Arts degree in Liberal Arts and Sciences
Emphasis in Social & Behavioral Sciences
Degree AB991

An emphasis in Social & Behavioral Sciences provides the student with an understanding of statistics, cultural and gender diversity, the development of the person, biology as it relates to behavior or society, and the historical and political implications on society.

Foundation (a minimum of 6-7 units selected from the following):

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ANTH</td>
<td>Biological Anthropology</td>
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</tr>
<tr>
<td>ANTH 1H</td>
<td>Biological Anthropology - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>POLI</td>
<td>Political Science</td>
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</tr>
<tr>
<td>POLI 1H</td>
<td>Political Science – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1A</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 1AH</td>
<td>Introduction to Psychology - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1H</td>
<td>Sociology – Honors</td>
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</tr>
<tr>
<td>BUSC 1A</td>
<td>Principles of Economics</td>
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</tr>
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<td>BUSC 1AH</td>
<td>Principles of Economics - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSC 1B</td>
<td>Principles of Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSC 1BH</td>
<td>Principles of Economics - Microeconomics</td>
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<tr>
<td>HIST 1</td>
<td>History of the United States</td>
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</tr>
<tr>
<td>HIST 7</td>
<td>History of the United States</td>
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</tr>
<tr>
<td>HIST 7H</td>
<td>History of the United States – Honors</td>
<td>3.0</td>
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Total units: 18.0 - 19.0

Development of the Person
(a minimum of 3 units selected from the following):

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 13</td>
<td>Human Reproduction, Development and Aging</td>
<td>3.0</td>
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<tr>
<td>CHLD 1</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHLD 10H</td>
<td>Child Growth and Development - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 14</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units: 18.0 - 19.0

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 units) or LBR 1 Information Resources and Research Methods (3.0 units).
**Other recommended electives include:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 3</td>
<td>Archaeology</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>COUN 5</td>
<td>Career/Life Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>COUN 51</td>
<td>Career Planning</td>
<td>1.0</td>
</tr>
<tr>
<td>CHILD 1</td>
<td>Child, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CHILD 73</td>
<td>Infant/Toddler Care and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHILD 85</td>
<td>Infants at Risk</td>
<td>3.0</td>
</tr>
<tr>
<td>LIT 15</td>
<td>Introduction to Cinema</td>
<td>3.0</td>
</tr>
<tr>
<td>LIT 20</td>
<td>African American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>LIT 25</td>
<td>Contemporary Mexican American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>LIT 3</td>
<td>Multicultural American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 17</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 19</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYC 33</td>
<td>Psychology for Effective Living</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 26</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SL 1</td>
<td>Service Learning/Seminar for Health Occupations</td>
<td>6.0</td>
</tr>
<tr>
<td>SL 2</td>
<td>Linked Service Learning</td>
<td>1.0</td>
</tr>
<tr>
<td>SL 3</td>
<td>Service Learning/Seminar in Community Involvement</td>
<td>3.0</td>
</tr>
<tr>
<td>SL 4</td>
<td>Service Learning and Community</td>
<td>1.0</td>
</tr>
</tbody>
</table>
section nine

Transferring to California Colleges and Universities
Transferring to California Colleges and Universities

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.

<table>
<thead>
<tr>
<th>Liberal Arts</th>
<th>Social Sciences</th>
<th>Natural Sciences &amp; Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>Anthropology</td>
<td>Biological Sciences</td>
</tr>
<tr>
<td>Art History</td>
<td>Behavioral Sciences</td>
<td>Animal Physiology</td>
</tr>
<tr>
<td>Classics</td>
<td>Child Development</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>Comparative Cultures</td>
<td>Cultural Geography</td>
<td>Biomedical Sciences</td>
</tr>
<tr>
<td>Creative Studies</td>
<td>Economics</td>
<td>Botany</td>
</tr>
<tr>
<td>Drama/Theater Arts</td>
<td>Ethnic and Area Studies</td>
<td>Ecology</td>
</tr>
<tr>
<td>English and Literature</td>
<td>Asian Studies</td>
<td>Environmental Biology/Toxicology Fisheries</td>
</tr>
<tr>
<td>Foreign Languages and Literatures</td>
<td>Chicana/Chicano Studies</td>
<td>Environmental Science/Studies</td>
</tr>
<tr>
<td>Humanities</td>
<td>Comparative Cultures</td>
<td>Food Science</td>
</tr>
<tr>
<td>Liberal Studies</td>
<td>European Studies</td>
<td>Forestry</td>
</tr>
<tr>
<td>Linguistics</td>
<td>Latin American Studies</td>
<td>Natural Resources Management</td>
</tr>
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<td>Medieval Studies</td>
<td>Middle Eastern Studies</td>
<td>Park Management</td>
</tr>
<tr>
<td>Museum Studies</td>
<td>Native American Studies</td>
<td>Petroleum Studies</td>
</tr>
<tr>
<td>Music</td>
<td>Third World Studies</td>
<td>Plant Biology</td>
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<tr>
<td>Musicology</td>
<td>History</td>
<td>Soil Sciences</td>
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<tr>
<td>Philosophy</td>
<td>Human Development</td>
<td>Wildlife Management</td>
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<tr>
<td>Religious Studies</td>
<td>Law and Society</td>
<td>Applied Arts</td>
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<td>Renaissance Studies</td>
<td>Legal Studies</td>
<td>Architecture</td>
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<td>Rhetoric</td>
<td>Peace and Conflict Studies</td>
<td>Art</td>
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<tr>
<td></td>
<td>Political Science</td>
<td>Design</td>
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<td>Psychology</td>
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<table>
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<tr>
<th>PHYSICAL SCIENCES</th>
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<td>Astrophysics</td>
<td>Landscape</td>
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<tr>
<td>Atmospheric Sciences</td>
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<td>Chemistry</td>
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<tr>
<td>Earth Science</td>
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<td>Geophysics</td>
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<td>Geology</td>
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<td>Oceanography</td>
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<td>Physical Geography</td>
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<td>Physical Sciences</td>
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<td>Physics</td>
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<td>Soil/Water Sciences</td>
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<table>
<thead>
<tr>
<th>Engineering &amp; Computer Science</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER SCIENCE/ENGINEERING</td>
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<tr>
<td>Aeronautics</td>
</tr>
<tr>
<td>Bio-engineering</td>
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<td>Chemical</td>
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<tr>
<td>Civil</td>
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<tr>
<td>Electrical/Electronic</td>
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<td>Environmental</td>
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<td>Food Engineering</td>
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<td>Industrial Engineering</td>
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<td>Materials Science</td>
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<table>
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<th>Business</th>
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<td>Marketing</td>
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<td>Communication</td>
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<td>Advertising</td>
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<table>
<thead>
<tr>
<th>Communication Studies</th>
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<tbody>
<tr>
<td>Film Studies</td>
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<td>Journalism</td>
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<tr>
<td>Mass Communication</td>
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<td>Motion Picture – Television</td>
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<td>Photography</td>
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<tr>
<td>Photo – Journalism</td>
</tr>
<tr>
<td>Public – Relations</td>
</tr>
<tr>
<td>Radio – Television Services</td>
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<table>
<thead>
<tr>
<th>Services</th>
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<tbody>
<tr>
<td>Communicative Disorders</td>
</tr>
<tr>
<td>Counseling</td>
</tr>
<tr>
<td>Criminal Justice</td>
</tr>
</tbody>
</table>
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 2011-2012 California State University (CSU) undergraduate application.
## Transferring to California Colleges and Universities

### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2011-12

The requirements listed below are for the 2011-2012 academic year and are based upon information available at the time of catalog publication.

Students may contact the Counseling Center for most current information at (909) 274-4293.

Students beginning Fall 2011 must follow 2011-2012 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.

#### 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 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 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.

### Area A: The English Language and Critical Thinking (9 units)

Select one course from each group:

**A-1: Oral Communication:**
- SPCH 1A Public Speaking
- SPCH 1AH Public Speaking – Honors
- SPCH 2 Fundamentals of Communication

**A-2: Written Communication:**
- ENGL 1A Freshman Composition
- ENGL 1AH Freshman Composition – Honors

**A-3: Critical Thinking:**
- ENGL 1C Critical Thinking and Writing
- ENGL 1EH Critical Thinking and Writing – Honors
- PHIL 3 Logic in Practice
- PHIL 3H Logic in Practice – Honors
- PHIL 8 Critical Thinking
- PHIL 9 Critical Thinking and Logical Writing
- PSYC 5 Psychology of Reasoning and Problem Solving

**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 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 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

**B-2: Life Science –**

Select at least one course from the following list:

- AGOR 1 Horticultural Science
- +ANAT 10A Introductory Human Anatomy
- +ANAT 10B Introductory Human Physiology
- +ANAT 15 Human Anatomy
- +ANAT 36 Human Physiology
- ANTH 1 Biological Anthropology
- ANTH 1H Biological Anthropology – Honors
- +BIOL 1 General Biology
- +BIOL 2 Plant and Animal Biology
- +BIOL 3 Ecology and Field Biology
- +BIOL 4 Biology for Majors
- +BIOL 4H Biology for Majors – Honors
- BIOL 6 Humans and the Environment
- +BIOL 6L Humans and the Environment Laboratory
- +BIOL 8 Cell and Molecular Biology
- BIOL 17 Neurobiology and Behavior
- BIOL 20 Marine Biology
- +BIOL 21 Marine Biology Laboratory
- BIOL 34 Fundamentals of Genetics
- +BIOL 34L Fundamentals of Genetics Laboratory
- +MICR 1 Principles of Microbiology
- +MICR 22 Microbiology
- PSYC 10 Psychological Science

### Area C: Additional Courses (9 units)

Select three courses, with at least one course from "Arts" and one course from "Humanities":

**C-1: Arts –**

- AHIS 1H Understanding the Visual Arts – Honors
- AHIS 1H Understanding the Visual Arts
- AHS 1 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
- ARTD 15A Drawing: Beginning
- ARTD 20 Design: Two Dimensional
- ARTD 25A Beginning Painting I
- ARTG 20 Art, Artists and Society
- ARTS 30A Ceramics: Beginning I
- ARTS 40A Sculpture: Beginning
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## California State University General Education Requirements 2011-12

### D-7: Interdisciplinary Social or Behavioral

- **CHLD 10** Child Growth and Development
- **CHLD 10H** Child Growth and Development – Honors
- **SPCH 7** Intercultural Communication
- **SPCH 7H** Intercultural Communication – Honors
- **SPCH 26** Interpersonal Communication
- **SPCH 26H** Interpersonal Communication – Honors
- **SPCH 30** Gateway to Communication Studies

**Area D: Political Science, Government, and Legal Institutions**

- **POLI 1** Political Science
- **POLI 1H** Political Science – Honors
- **POLI 2** Political Science
- **POLI 5** Political Theory I – Ancient to Modern
- **POLI 7** Political Theory II – Early Modern to Contemporary
- **POLI 9** Introduction to International Relations
- **POLI 10** Environmental Politics
- **POLI 25** Politics of the Mexican American
- **POLI 35** African American Politics

### D-8: Political Science, Government, and Legal Institutions

- **POLI 5** Political Theory I – Ancient to Modern
- **PSYC 1A** Introduction to Psychology
- **PSYC 1AH** Introduction to Psychology – Honors
- **PSYC 14** Developmental Psychology
- **PSYC 15** Introduction to Child Psychology
- **PSYC 19** Abnormal Psychology
- **PSYC 25** The Psychology of Women

### D-9: Psychology

- **PSYC 1A** Introduction to Psychology
- **PSYC 1AH** Introduction to Psychology – Honors
- **PSYC 14** Developmental Psychology
- **PSYC 15** Introduction to Child Psychology
- **PSYC 19** Abnormal Psychology
- **PSYC 25** The Psychology of Women

### Area E: Lifelong Understanding & Self Development

- **AD 3** Chemical Dependency: Intervention, Treatment and Recovery
- **BIOL 5** Contemporary Health Issues
- **BIOL 13** Human Reproduction, Development and Aging
- **BIOL 15** Human Sexuality
- **BIOL 15H** Human Sexuality – Honors
- **CHLD 10** Child Growth and Development
- **CHLD 10H** Child Growth and Development – Honors
- **COUN 5** Career/Life Planning
- **FCS 41** Life Management
- **LEAD 55** Exploring Leadership
- **NF 10** Nutrition for Personal Health and Wellness
- **NF 25** Essentials of Nutrition
- **NF 25H** Essentials of Nutrition – Honors
- **NF 28** Cultural and Ethnic Foods
- **PE 34** Fitness for Living
- **PSYC 14** Developmental Psychology
- **PSYC 25** The Psychology of Women
- **PSYC 26** Psychology of Sexuality
- **PSYC 33** Psychology for Effective Living
- **SOC 15** Child Development
- **SPCH 26** Interpersonal Communication
- **SPCH 26H** Interpersonal Communication – Honors

### 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 2011 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.
Transferring to California Colleges and Universities

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.
The requirements listed below are for the 2011-2012 academic year and are based upon information available at the time of catalog publication.

Students may contact the Counseling Center for most current information at (909) 274-4293.

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 2011 must follow 2011-2012 IGETC requirements. Courses are approved for the general education courses to satisfy university general education requirements. It should be noted that completion of (A grade of “C–” is not acceptable.)

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
SPCH 2 Fundamentals of Communication

Area 2

Mathematical Concepts and Quantitative Reasoning
Select one course from:

MATH 10 Elementary Statistics
MATH 10H 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 181 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:

ARTB 1 Understanding the Visual Arts
ARTS 1H Understanding the Visual Arts – Honors
ARTS 3 History of Women and Gender in Art
ARTS 3H History of Women and Gender in Art – Honors
ARTS 4 History of Western Art: Prehistoric Through Gothic
ARTS 4H History of Western Art: Prehistoric Through Gothic – Honors
ARTS 5 History of Western Art: Renaissance Through Modern
ARTS 5H History of Western Art: Renaissance Through Modern – Honors
ARTS 6 History of Modern Art
ARTS 6H History of Modern Art – Honors
ARTS 10 A History of Greek and Roman Art and Architecture
ARTS 11 History of African, Oceanic, and Native American Art
ARTS 12 History of Precolombian Art
ARTS 12H History of Precolombian Art – Honors
ARCH 31 World Architecture I
ARCH 32 World Architecture II
DN 20 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
MUS 15 Rock Music History and Appreciation
THR 10 History of Theater Arts

Humanities Courses:

CHIN 3 Intermediate Chinese
CHIN 4 Continuing Intermediate Chinese

ENGL 18 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
GERM 3 Intermediate German
HIST 1 History of the United States
HIST 2 History of the United States – Honors
HIST 3 World History: Prehistoric to Early Modern
HIST 3H World History: Prehistoric to Early Modern – Honors
HIST 4 World History: Early Modern to the Present
HIST 4H World History: Early Modern to the Present – Honors
HIST 7 History of the United States
HIST 7H History of the United States – Honors
HIST 8 History of the United States
HIST 8H History of the United States – Honors
HIST 10 History of Asia
HIST 11 History of Asia
HIST 19 History of Mexico
HIST 30 History of the African American
HIST 31 History of the African American
HIST 35 History of Africa
HIST 36 Women in American History
HIST 39 California History
HIST 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 Survey of Shakespeare
LIT 11A World Literature to 1650
LIT 11B World Literature from 1650
LIT 14 Introduction to Modern Poetry
LIT 15 Introduction to Cinema
LIT 20 African American Literature
LIT 25 Contemporary Mexican American Literature
LIT 36 Introduction to Mythology
LIT 46 The Bible as Literature: Old Testament
LIT 47 The Bible as Literature: New Testament
PHIL 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
*PODI 5 Political Theory I – Ancient to Modern
*PODI 7 Political Theory II – Early Modern to Contemporary
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 1AH Principles of Economics: Macroeconomics — Honors
- BUSC 1B Principles of Economics: Microeconomics
- BUSC 1BH Principles of Economics: Microeconomics — Honors
- GEOG 2 Human Geography
- GEOG 2H Human Geography – Honors
- GEOG 8 The Urban World
- GEOG 30 Geography of California
- HIST 44 History of Native Americans
- POLI 1 Political Science
- POLI 1H Political Science – Honors
- *POLI 5 Political Theory I — Ancient to Modern
- *POLI 7 Political Theory II — Early Modern to Contemporary
- POLI 9 Introduction to International Relations
- POLI 10 Environmental Politics
- POLI 25 Politics of the Mexican American
- POLI 35 African American Politics
- PSYC 1AH Introduction to Psychology
- PSYC 14 Developmental Psychology
- PSYC 19 Abnormal Psychology
- PSYC 25 The Psychology of Women
- SDC 1 Sociology
- SDC 1H Sociology – Honors
- SDC 2 Sociology
- SDC 2H Sociology – Honors
- SDC 4 Introduction to Gerontology
- SDC 5 Introduction to Criminology
- SDC 3H Introduction to Criminology – Honors
- SDC 20 Sociology of Ethnic Relations
- SDC 20H Sociology of Ethnic Relations – Honors
- SPCH 7 Intercultural Communication
- SPCH 7H Intercultural Communication – Honors
- SPCH 26 Interpersonal Communication
- SPCH 26H Interpersonal Communication – Honors
- SPCH 30 Gateway to Communication Studies

**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. Lecture courses are underlined.

### Physical Science:

- ASTR 1 Introduction to Astronomy
- ASTR 5H Introduction to Astronomy — Honors
- ASTR 5L Astronomical Observing Laboratory
- ASTR 7 Geology of the Solar System
- ASTR 9 Introduction to Stars, Galaxies, and the Universe
- CHEM 10 Chemistry for Allied Health Majors
- CHEM 20 Introduction 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
- GEOG 1 Elements of Physical Geography
- GEOG 1H Elements of Physical Geography — Honors
- GEOG 1L Physical Geography Laboratory
- GEOG 1LH Physical Geography Laboratory — Honors
- GERM 1 Elementary German
- GERM 1L Elementary German Laboratory
- GERM 10 Elementary German — Honors
- GERM 10L Elementary German Laboratory — Honors
- GERM 30 Elementary German
- GERM 30L Elementary German Laboratory

### Biological Science:

- ANAT 10A Introductory Human Anatomy
- ANAT 10B Introductory Human Physiology
- ANAT 105 Human Anatomy
- ANAT 106 Human Physiology
- ANTH 1 Biological Anthropology
- ANTH 1H Biological Anthropology — Honors
- ANTH 1L Biological Anthropology Laboratory
- BIOL 1 General Biology
- BIOL 1G General Biology
- BIOL 2 Plant and Animal Biology
- BIOL 3 Ecology and Field Biology
- BIOL 4 Biology for Majors

**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
- ARAB 1H Elementary Arabic — Honors
- CHIN 1 Elementary Chinese
- CHIN 1H Elementary Chinese — Honors
- FREN 1 Elementary French
- FREN 1H Elementary French — Honors
- GER 1 Elementary German
- GER 1H Elementary German — Honors
- ITAL 1 Elementary Italian
- ITAL 1H Elementary Italian — Honors

**CSU GRADUATION REQUIREMENTS ONLY IN U.S. HISTORY, CONSTITUTION, AND AMERICAN IDEALS:**

Note: UCSC requires a college-level U.S. history or government course.

- Option 1: HIST 7 (or 7H) + HIST 8 (or 8H)
  - 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 History of the United States
- HIST 1H History of the United States — Honors
- HIST 2H History of the United States — Honors
- HIST 3 History of the United States
- HIST 3H History of the United States — Honors
- HIST 4 History of the United States
- HIST 4H History of the United States — Honors

**American Institutions:**

- POLI 1 Political Science
- POLI 1H Political Science — Honors
- POLI 2 Political Science
- POLI 2H Political Science — Honors
- POLI 3 History of the African American
- POLI 3H History of the African American — Honors
- POLI 4 History of the African American

Note:

UC limits transfer credit for some courses. Students may review the UC Transfer Course Agreement (TCA) with an educational advisor or counselor. The list is subject to change. 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 counselor for language proficiency equivalencies.
Transferring to California Colleges and Universities

**IGETC AFTER TRANSFER**

**PARTIAL CERTIFICATION OF THE INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)**

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 INDEPENDENT COLLEGES AND UNIVERSITIES**

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
- American Jewish University
- Antioch University Los Angeles
- Art Center College of Design
- Azusa Pacific University
- Biola University
- Brandman 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
- California Institute of Integral Studies
- The Chicago School of Professional Psychology
- Claremont Graduate University
- Claremont McKenna College
- Claremont University Consortium
- Coppin State Polytechnical College
- Concorde University
- DeVry Institute of Technology
- Dominican University of California
- Drew University Center for Graduate Studies
- Fielding Graduate University
- Fresno Pacific University
- Golden Gate University
- Harvey Mudd College
- Holy Names College
- Hope International University
- Humphreys College
- 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
- Mount St. Mary's College
- National University
- Notre Dame de Namur University
- Occidental College
- Otis College of Art and Design
- Pacific Oaks College
- Pacific Union College
- Palo Alto University
- 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
- 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
- Westminster 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 ten

Courses 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 GPA in transferable course work; and be enrolled in at least six units at Mt. SAC. A $10.00 fee plus any material/laboratory 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.

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.

Pre-Requisite
A prerequisite is a course which must be taken as preparation for enrolling 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.

Pre-Collegiate Basic Skills
Courses designated “Pre-collegiate” develop basic skills in reading, writing, and computation. They will neither count toward graduation from Mt. San Antonio College nor transfer to four-year colleges and universities.

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.
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COURSE DESCRIPTIONS

ADJU 1 — The Administration of Justice System 3 Units
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 Justice System 3 Units
Degree Applicable, CSU
54 hours lecture
Roles and responsibilities of each segment of the justice system; additional focus on relationships between system segments and sub-system procedures from initial incident to final disposition.

ADJU 3 — Concepts of Criminal Law 3 Units
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
Prerequisite: Eligibility for English 68
Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.

ADJU 13 — 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
Degree Applicable
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 and Corrections 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68, and ADJU 1
Contemporary street and prison gang issues, including historical and current perspectives, gang dynamics, identification of characteristics, and cultural differences of gang philosophy. Includes law enforcement and corrections role in intervention and suppression.

ADJU 68 — Administration of Justice Report Writing 3 Units
Degree Applicable
54 hours lecture
Prerequisite: Eligibility for English 68
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
54 hours lecture
Advisory: Eligibility for ENGL 68 and ADJU 1
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.

ADJU 80 — Interviewing and Interrogation 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68 and ADJU 1
Examination of interview and interrogation processes; effective follow up and case preparation.

ADJU 100 — Cyber Crime Law Enforcement 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68 and ADJU 1
Focuses on issues of crime causation and correction in the cyber world.

ADJU 101 — Cyber Forensics 3 Units
Degree Applicable
54 hours lecture
Advisory: Eligibility for ENGL 68 and ADJU 1
Focuses on cyber crime investigations, including the basic knowledge and skills necessary to perform computer forensics.

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
54 hours lecture
Advisory: AERO 23
A study 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 system, 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.
AERO 30 — Instrument Ground School  
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: AERO 23 and AERO 26
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.

AERO 40 — Flight  
1 Unit
Degree Applicable
18 hours lecture
Advisory: AERO 23 taken prior or concurrently
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.

AERO 40L — Flight Laboratory  
.5 Unit
Degree Applicable
18 hours lab
Corequisite: AERO 40
Advisory: AERO 23 taken prior or concurrently
Primary pilot 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 certificated 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.

AERO 41 — Basic Flight Simulator Laboratory  
.5 Unit
Degree Applicable
27 hours lab
Advisory: AERO 25
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.

AERO 42 — Advanced Flight Simulator Laboratory  
.5 Unit
Degree Applicable
27 hours lab
Advisory: AERO 30 or AERO 41

AERO 45A — Multi-Engine Turbine Aircraft Operations  
3 Units
Degree Applicable
54 hours lecture
Advisory: Private Pilot’s Certificate and AERO 30 or Instrument Rating
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.

AERO 58 — Flight Instructor Ground School  
3 Units
Degree Applicable
54 hours lecture
Advisory: AERO 25 and AERO 30 or Commercial Pilot Certificate with Instrument Rating
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.

AGHE 54 — Veterinary Office Procedures  
3 Units
Degree Applicable
54 hours lecture
Includes veterinary hospital records, client relations, medical terminology, filing of governmental reports, legal responsibilities of animal health technicians and application of veterinary medical ethics.

AGHE 60 — Medical Nursing and Animal Care  
4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 86 and formal admittance to the Registered Veterinary Technology Program
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.

AGHE 61 — Surgical Nursing  
4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 60
Surgical preparation, surgical assistance, post-operative care, administer and monitor anesthesia, dentistry, CPR, sterilization and the maintenance of a sterile environment.

AGHE 62A — Clinical Pathology  
4 Units
Degree Applicable, CSU
54 hours lecture
54 hours lab
Prerequisite: AGHE 86
Hematology, clinical chemistries, internal parasites, immunology, serology, and vaginal cytology of domestic animals.

AGHE 62B — Clinical Pathology  
4 Units
Degree Applicable
54 hours lecture
54 hours lab
Prerequisite: AGHE 86
Bacteriology, clinical chemistry, urinalysis, external parasites and cytology of domestic animals.

AGHE 64 — Veterinary Pharmacology  
3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Formal admittance to Advanced Class Status in the Registered Veterinary Technology Program, and completion of MATH 51 or MATH 51B or AGAG 91
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.

AGHE 65 — Veterinary Radiography  
2 Units
Degree Applicable, CSU
18 hours lecture
54 hours lab
Prerequisite: 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.
Course Descriptions

AGHE 83A — Work Experience in Animal Health  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: 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 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 procedure 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 lecture
Prerequisite: Completion of the Registered Veterinary Technology program
Group study course designed to prepare students for national and state veterinary technician 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.

AGHE 86A — 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
Fundamental problems and essential concepts of animal production. Includes 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
36 hours lecture
54 hours lab
Methods of proper handling for large and small animals, including chemical and physical techniques of restraint. Field trip required.

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.

AGAN 95 — Animal Health Procedures  3 Units
Degree Applicable
54 hours lecture
54 hours lab
Prerequisite: Eligibility for ENGL 68
Care and management of exotic and alternative livestock species with application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions.

AGAG 91 — Agricultural Calculations  3 Units
Degree Applicable
54 hours lecture
Prerequisite: MATH 50
Calculating the proper dosages of veterinary drugs, application rates of farm and horticultural chemicals inclusive of fertilizer and pesticide materials, feed rations, land area and volume measurements, calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions.

AGAG 99 — Special Projects in Agriculture  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. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

AGLJ 12 — Exotic Animal Management  3 Units
Degree Applicable
54 hours lecture
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tr>
<td>AGLI 14</td>
<td>Swine Production</td>
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<td>Degree Applicable, CSU</td>
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<tr>
<td>AGLI 16</td>
<td>Horse Production and Management</td>
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<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
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<tr>
<td>AGLI 18</td>
<td>Horse Ranch Management</td>
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<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 19</td>
<td>Horse Hoof Care</td>
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<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGLI 20</td>
<td>Horse Behavior and Training</td>
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<td>Degree Applicable, CSU</td>
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<tr>
<td>AGLI 34</td>
<td>Livestock Judging and Selection</td>
<td>2</td>
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<tr>
<td>AGLI 35</td>
<td>Animal Sanitation and Disease Control</td>
<td>3</td>
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</tr>
<tr>
<td>AGLI 96</td>
<td>Artificial Insemination of Livestock</td>
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</tr>
<tr>
<td>AGLI 97</td>
<td>Horticultural Science</td>
<td>2</td>
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</tr>
<tr>
<td>AGOR 1</td>
<td>Integrated Pest Management</td>
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<tr>
<td>AGOR 2</td>
<td>Plant Propagation/Greenhouse</td>
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<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 4</td>
<td>Park Management</td>
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<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>AGOR 5</td>
<td>Park Facilities</td>
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<td>AGOR 13</td>
<td>Landscape Design</td>
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<tr>
<td>AGOR 15</td>
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<tr>
<td>AGOR 24</td>
<td>Park Facilities</td>
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<td>Degree Applicable, CSU</td>
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<tr>
<td>AGOR 29</td>
<td>Ornamental Plants - Herbaceous</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

### Course Descriptions

**AGLI 14 — Swine Production**
- 36 hours lecture
- 54 hours lab
- 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.

**AGLI 16 — Horse Production and Management**
- 54 hours lecture
- 54 hours lab
- Selection, utilization, and management of the light horse. Emphasis is on evaluation, health care, and handling skills.

**AGLI 17 — Sheep Production**
- 36 hours lecture
- 54 hours lab
- A study of the various types of sheep enterprises and the ways and means of entering them. Sheep management, sheep handling, feeding, shearing, breeding, lambing, and marketing. Practical skills are taught on the school farm and sheep farms in the area.

**AGLI 18 — Horse Ranch Management**
- 54 hours lecture
- 54 hours lab
- Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm lay out, estrous cycles, breeding problems and stallion care.

**AGLI 19 — Horse Hoof Care**
- 18 hours lecture
- 54 hours lab
- Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

**AGLI 20 — Horse Behavior and Training**
- 18 hours lecture
- 54 hours lab
- Corequisite: AGLI 16 or AGLI 18 (may have been taken previously) or equivalent experience with horses. 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.

**AGLI 34 — Livestock Judging and Selection**
- 18 hours lecture
- 54 hours lab
- 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.

**AGLI 35 — Animal Sanitation and Disease Control**
- 54 hours lecture
- Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmission of infectious diseases, principles of sanitation and fundamentals of immunology.

**AGLI 96 — Artificial Insemination of Livestock**
- 18 hours lecture
- 54 hours lab
- Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization, and pregnancy diagnosis.

**AGOR 1 — Horticultural Science**
- 54 hours lecture
- Basic horticultural 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.

**AGOR 2 — Plant Propagation/Greenhouse Management**
- 36 hours lecture
- 54 hours lab
- 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 sporling and division. Stress greenhouses and other environmental structures for plant propagation and production.

**AGOR 4 — Park Management**
- 54 hours lecture
- Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

**AGOR 5 — Park Facilities**
- 54 hours lecture
- Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities and golf courses.

**AGOR 13 — Landscape Design**
- 36 hours lecture
- 54 hours lab
- Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites. Field trips and off-campus assignments required.

**AGOR 15 — Interior Landscaping**
- 36 hours lecture
- 54 hours lab
- Design, installation, and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use. Field trip required.

**AGOR 24 — Integrated Pest Management**
- 36 hours lecture
- 54 hours lab
- Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices, including integrated pest management (IPM). Stress use, safety, equipment, laws, and regulations of pesticides.

**AGOR 29 — Ornamental Plants - Herbaceous**
- 36 hours lecture
- 54 hours lab
- Identification, growths 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 Nurserymen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.
**Course Descriptions**

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<thead>
<tr>
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<tbody>
<tr>
<td>AGOR 30</td>
<td>Ornamental Plants - Trees and Woody Shrubs</td>
<td>3 Units</td>
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<tr>
<td>AGOR 31</td>
<td>Tractor and Landscape Equipment Operations</td>
<td>3 Units</td>
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<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
<td>3 Units</td>
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<tr>
<td>AGOR 33</td>
<td>Turf Grass Production and Management</td>
<td>3 Units</td>
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<td>AGOR 34</td>
<td>Sports Turf Management</td>
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<tr>
<td>AGOR 35</td>
<td>Soil Science and Management</td>
<td>3 Units</td>
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<tr>
<td>AGOR 36</td>
<td>Diesel Engine Repair</td>
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<td>AGOR 37</td>
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<td>AGOR 38</td>
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<tr>
<td>AGOR 39</td>
<td>Small Engine Repair I</td>
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<td>AGOR 40</td>
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<tr>
<td>AGOR 41</td>
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<tr>
<td>AGOR 42</td>
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<tr>
<td>AGOR 43</td>
<td>Landscape Irrigation Systems Management</td>
<td>3 Units</td>
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<tr>
<td>AGOR 44</td>
<td>Landscape Irrigation - Drip and Low Volume</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

Course Descriptions

- **AGOR 30 — Ornamental Plants - Trees and Woody Shrubs 3 Units**
  Degree Applicable, CSU, UC
  36 hours lecture
  54 hours lab
  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 Nurserymen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.

- **AGOR 31 — Tractor and Landscape Equipment Operations 3 Units**
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes two- and four-wheel drive tractors, skip loaders, skid steer loaders, backhoes, lawn mowers, edgers, weed eaters, blower vacuums, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes use of this equipment.

- **AGOR 32 — Landscaping and Nursery Management 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Advisory: AGOR 1
  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 33 — Turf Grass Production and Management 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Introduction to cultivation, maintenance and management of turfgrasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural requirements and maintenance practices are emphasized. Field trips required.

- **AGOR 34 — Sports Turf Management 3 Units**
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Prerequisite: AGOR 39 or equivalent experience
  Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges and other sports fields in both professional and amateur sports. Field trips included.

- **AGOR 35 — Soil Science and Management 3 Units**
  Degree Applicable, CSU, UC
  36 hours lecture
  54 hours lab
  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 included.

- **AGOR 36 — Engine Diagnostics 3 Units**
  (May be taken for option of letter grade or Pass/No Pass)
  36 hours lecture
  54 hours lab
  Analysis and evaluation of tractor engine power failures with hands-on experience in the proper diagnostic procedures of power equipment. Includes service, maintenance and repair of tractor electrical systems: electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.

- **AGOR 37 — Power Train Repair 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Service, maintenance, and repair of power trains. Includes clutch, transmissions, differentials, power take-off units, and final drives used to transmit power on tractors and other outdoor power equipment.

- **AGOR 38 — Landscape Irrigation - Design and Installation 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Design and installation 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 39 — Small Engine Repair I 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engines, 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

- **AGOR 40 — Small Engine Repair II 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Advanced repair and maintenance of mid-horsepower gasoline and diesel engines. Multi-cylinder air- and water-cooled engines used in landscape, industrial and agricultural applications. Repair of ride mowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment. Students gain actual hands-on experience maintaining and overhauling engines.

- **AGOR 41 — Hydraulics 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Operation, maintenance, and repair of hydraulic systems used for agriculture and industrial equipment. Emphasis on pumps, valves, cylinders, flow control, reservoirs, lines, motors, and hydrostatic transmissions.

- **AGOR 42 — Power Train Repair 3 Units**
  Degree Applicable, CSU
  36 hours lecture
  54 hours lab
  Systematic approach to water conservation in landscapes. 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 system evaluation.

- **AGOR 43 — Landscape Irrigation Systems Management 3 Units**
  Degree Applicable
  36 hours lecture
  54 hours lab
  Conservation of water in landscapes 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. Includes hands-on experience in design and installation techniques.
Course Descriptions

AGOR 70 — Pet Shop Management 3 Units
Degree Applicable
54 hours lecture
The pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes organization and operation of pet shops, animal care practices, and sound business management practices.

AGOR 71 — Landscape Construction Fundamentals 3 Units
Degree Applicable, CSU
(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 72 — Landscape Hardscape Applications 3 Units
Degree Applicable, CSU
(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
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Landscaping laws, contracting, and estimating as they pertain to landscape construction. Information covered will be helpful for the Landscape Contractors (C-27 classification) licensing exam administered by the state of California. Off campus assignments required.

AGOR 74 — Reptile Management 2 Units
Degree Applicable
36 hours lecture
Advisory: Eligibility for ENGL 68
Care and keeping of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding and raising of reptiles will be offered.

AGOR 75 — Urban Arboriculture 3 Units
Degree Applicable
(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 76 — Aviculture - Cage and Aviary Birds 3 Units
Degree Applicable
54 hours lecture
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.

AGPE 70 — Tropical and Coldwater Fish Management 2 Units
Degree Applicable
54 hours lecture
The pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes organization and operation of pet shops, animal care practices, and sound business management practices.

AGPE 71 — Canine Management 3 Units
Degree Applicable
54 hours lecture
54 hours lab
Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling and grooming of dogs. May include field trips.

AGPE 72 — Feline Management 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68
Care and management of cats. Includes breed identification and characteristics, grooming, showing, nutrition, practical care, behavior, breeding, and housing.

AGPE 73 — Tropical and Coldwater Fish Management 2 Units
Degree Applicable
36 hours lecture
Advisory: Eligibility for ENGL 68
Care and keeping of marine and freshwater aquarium fishes, plants, and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

AGPE 74 — Reptile Management 2 Units
Degree Applicable
36 hours lecture
Advisory: Eligibility for ENGL 68
Care and keeping of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding and raising of reptiles will be offered.

AGPE 75 — Urban Arboriculture 3 Units
Degree Applicable
(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.

AGPE 76 — Aviculture - Cage and Aviary Birds 3 Units
Degree Applicable
54 hours lecture
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.

AIR CONDITIONING AND REFRIGERATION

AIRC 10 — Technical Mathematics in Air Conditioning and Refrigeration 2 Units
Degree Applicable
27 hours lecture
27 hours lab
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.

AIRC 11 — Welding for Air Conditioning and Refrigeration 2 Units
Degree Applicable
18 hours lecture
54 hours lab
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.

AIRC 12 — Air Conditioning Codes and Standards 3 Units
Degree Applicable
54 hours lecture
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.
### COURSE DESCRIPTIONS

#### AIRC 20 — Refrigeration Fundamentals
4 Units  
Degree Applicable

- 48 hours lecture
- 71 hours lab
- Principles of mechanical refrigeration based on the refrigeration cycle and associated components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydrating techniques, and the safe handling and containment of refrigerants.

#### AIRC 21 — Heat Transfer
4 Units  
Degree Applicable

- 27 hours lecture
- Advisory:佔AIRC 20 or equivalent
- Heat transfer and superheat will be examined, developed and applied to residential and light commercial heating installations. Equipment sizing, selection and duct design based on the Heat Load of the structure. Heat Trans. calculation software will be explored and used to aid in the process.

#### AIRC 22 — Electrical Fundamentals for Air Conditioning and Refrigeration
5 Units  
Degree Applicable

- 66 hours lecture
- 54 hours lab
- Electrical principles and practices used in air conditioning, refrigeration, and heat pump systems 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 troubleshooting.

#### AIRC 26 — Gas Heating Fundamentals
2 Units  
Degree Applicable

- 36 hours lecture
- Advisory: AIRC 12 and AIRC 25
- Theory, operation, and application of natural gas and propane heating systems used in residential and light commercial heating installations including the properties of fuel gases, gas combustion, furnace construction, pilot proving devices and ignition systems.

#### AIRC 30 — Heat Load Calculations and Design
4 Units  
Degree Applicable

- 72 hours lecture
- Advisory: AIRC 20 taken prior
- Heat loss and heat gain will be examined, developed and applied to residential dwellings air conditioning systems. Equipment sizing, selection and duct design based on the Heat Load of the structure. Heat Load calculation software will be explored and used to aid in the process.

#### AIRC 31 — Commercial Electrical for Air Conditioning and Refrigeration
4 Units  
Degree Applicable

- 54 hours lecture
- Advisory: AIRC 25 taken prior
- 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.

#### AIRC 32A — Air Properties and Measurement
1.5 Units  
Degree Applicable

- 18 hours lecture
- Advisory: AIRT 41
- 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.

#### AIRC 32 — Air Properties and Measurement
1.5 Units  
Degree Applicable

- 18 hours lecture
- Advisory: AIRT 41
- 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.

#### AIRT 42 — Terminal Air Traffic Control
3 Units  
Degree Applicable

- 108 hours lab
- Advisory: AIRC 21 and AIRT 41
- Designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA). Students will learn about aircraft as to FAA category and class, and analyze aircraft for the distinctive features of aircraft, identify types of aircraft, classify aircraft to FAA category and class, and analyze aircraft for performance characteristics required for air traffic control separation. Commercial Pilot majors are encouraged to take the class as an elective course.

#### AIRT 43 — Flight Operations Management
3 Units  
Degree Applicable

- 108 hours lab
- Advisory: AIRC 21 and AIRT 41
- Designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA). Students will learn about aircraft operation in the National Airspace System, control tower operations, terminal radar control, radio communication techniques and phrasing, and responding to emergencies.

#### AIRT 44 — Aircraft Familiarization
3 Units  
Degree Applicable

- 72 hours lecture
- Advisory: AIRC 21 and AIRT 41
- Designed for students who want to become air traffic controllers for the Federal Aviation Administration (FAA). Students will learn about aircraft operation in the National Airspace System, control tower operations, terminal radar control, radio communication techniques and phrasing, and responding to emergencies.
FAA standards and interpersonal team skills. Coordination and control of air traffic utilizing Advisory: AIRT 42
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.

AIRT 47 — Work Experience in Air Traffic Control 1 Unit
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
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.

AIRT 51 — Air Traffic Control Laboratory 1 Unit
Degree Applicable
54 hours lab
Advisory: AERO 23, AERO 26, AERO 29
Concepts, procedures, and skills related to air traffic control. Microphone technique, voice control, phraseology, facility and interfacility coordination, strip markings, airport traffic control, weather observing, and control tower functions.

AIRT 55 — Terminal Radar Approach Control Laboratory 1 Unit
Degree Applicable
(May be taken four times for credit)
54 hours lab
Advisory: AIRT 31 and AERO 30 taken prior or concurrently
Simulation of a radar approach control facility concentrating on approach and departure procedures using appropriate phraseology, flight progress strip markings and radar separation standards. Students who repeat this course will improve skills through further instruction and practice.

AIRCRAFT MAINTENANCE TECHNOLOGY

AIRM 65A — Aircraft Powerplant Maintenance Technology 13 Units
Degree Applicable, CSU
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.

AIRM 65B — Aircraft Powerplant Maintenance Technology 13 Units
Degree Applicable, CSU
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.

AIRM 66A — Airframe Maintenance Technology 13 Units
Degree Applicable, CSU
108 hours lecture
376 hours lab
Theory of flight. Aircraft structures including inspection, maintenance, repair, and alteration. Approved and required for the FAA airframe certification and Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 66B — Airframe Maintenance Technology 13 Units
Degree Applicable, CSU
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.

AIRM 70A — Aircraft Maintenance Electricity and Electronics 3 Units
Degree Applicable
36 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.

AIRM 70B — Aircraft Maintenance Electricity and Electronics 3 Units
Degree Applicable
36 hours lecture
72 hours lab
Advisory: AIRM 72, AIRM 73 (May be taken concurrently)
Basic principles of alternating current, terminology, units and circuit arrangements, alternators, inverters and related controls, derating of switches and circuit breakers, capacitors, inductors, transistors, cathode ray tubes, digital electronics, microprocessors, computers, power distribution systems for large aircraft. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 71 — Aviation Maintenance Science 6 Units
Degree Applicable
108 hours lecture
Federal aviation regulations, interpretation of aircraft drawings, basic physics, technical mathematics, and aircraft weight and balance computations. FAA approved course required of all aircraft powerplant and airframe maintenance technology majors.

AIRM 72 — Aviation Materials and Processes 1.5 Units
Degree Applicable
18 hours lecture
36 hours lab
Advisory: AIRM 70B, AIRM 73
An FAA-approved course covering aviation materials, non-destructive testing, basic heat-treating and an introduction to machine tool operation.

AIRM 73 — Aviation Welding 1.5 Units
Degree Applicable
18 hours lecture
36 hours lab
Advisory: AIRM 70B, AIRM 73 (May be taken concurrently)
Theory and techniques of gas and inert gas welding as they apply to aircraft construction and repair. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 74 — Aircraft Maintenance Technology — Work Experience 2 Units
Degree Applicable
(May be taken for Pass/No Pass only)
90 hours lab
Advisory: AIRM 65A and AIRM 65B or AIRM 66A and AIRM 66B
Combines aircraft maintenance experience in addition to classroom instruction for college credit. Two units of credit will be earned as a result of 120 unpaid or 150 paid work hours. The employer/evaluator will have the student perform aircraft maintenance work under direct supervision at a maintenance facility.
## Course Descriptions

### AIRM 80 — Lab Studies in Aircraft Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 5 to 1 Unit
- **Prerequisites:** May be taken four times for credit
- **Notes:** May be taken for Pass/No Pass only
- **Contact Hours:** 27 to 54 hours lab

### AIRM 90A — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 90B — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 91A — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 91B — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 92A — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 92B — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 93A — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 93B — Airframe Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 94A — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 94B — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 95A — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 95B — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 96A — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 96B — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 97A — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 97B — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 98A — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab

### AIRM 98B — Aircraft Powerplant Maintenance Technology

- **Course Description:** Degree Applicable
- **Credit Hours:** 3 Units
- **Prerequisites:** 36 hours lecture
- **Contact Hours:** 72 hours lab
### AIRM 98B — Aircraft Powerplant Maintenance Technology 3 Units
Degree Applicable
36 hours lecture
72 hours lab
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
Reciprocating and turbine engine lubricants and lubricating systems.
Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

### ALCOHOL DRUG COUNSELING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 1</td>
<td>Alcohol/Drug Dependency</td>
<td>3</td>
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<tr>
<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Presents an overview of alcohol and chemical dependencies and ramifications.</td>
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<td>Explores the impact these dependencies have upon the individual's social,</td>
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<td>psychological, economic, physiological well-being, community and family</td>
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<td></td>
<td>concerns. Examines the &quot;myths,&quot; images, and stereotypes about substances</td>
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<td>and substance abusers. Includes familiarization with terms.</td>
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<td>AD 2</td>
<td>Physiological Effects of Alcohol/Drugs</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Examines in-depth the physiological effect of alcohol and other drugs on</td>
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<td>the human body. Includes aspects of tolerance, habituation, cross tolerance</td>
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<td>and synergistic effect.</td>
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<td>AD 3</td>
<td>Chemical Dependency: Intervention, Treatment and Recovery</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Examines and analyzes the tools and techniques necessary in moving the</td>
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<td>chemically dependent individual into the treatment process; the varying</td>
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<td></td>
<td>types of treatment programs, and the essentials of effective recovery.</td>
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<tr>
<td>AD 4</td>
<td>Issues in Domestic Violence</td>
<td>3</td>
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<tr>
<td></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>Examines the history, law and psychology of domestic violence; cultural/</td>
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<td>social/associates; relationship to substance abuse.</td>
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<tr>
<td>AD 5</td>
<td>Chemical Dependency: Prevention and Education</td>
<td>1.5</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>27 hours lecture</td>
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<td></td>
<td>Reviews and examines drug prevention effectiveness, at both the private</td>
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<td>and public level. Appraises personal attitudes, past and present, and their</td>
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<td>influence on societal norms. Evaluates current prevention programs and the</td>
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<td>necessary steps for developing, funding and managing a program.</td>
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<td>AD 6</td>
<td>Dual Diagnosis</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Overview of the complex interactions of mental disorders and chemical</td>
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<tr>
<td></td>
<td>dependency. Reviews and examines the key areas involving dual diagnosis:</td>
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<td></td>
<td>definition, diagnosis, treatment and aftercare.</td>
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<td>AD 8</td>
<td>Group Process and Leadership</td>
<td>3</td>
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<tr>
<td></td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or</td>
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<td></td>
<td>concurrently</td>
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<td></td>
<td>Introduces the theory and practice of group counseling, the group process</td>
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<td>and dynamics of group interaction.</td>
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<tr>
<td>AD 9</td>
<td>Family Counseling</td>
<td>3</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or</td>
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<td>concurrently</td>
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<td></td>
<td>Introduces the theory and practice of family counseling. Topics include,</td>
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<td>family systems and dynamics, effects of chemical dependency, and counseling</td>
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<td></td>
<td>techniques.</td>
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<td>AD 10</td>
<td>Client Record and Documentation</td>
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<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>27 hours lecture</td>
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<td>Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or</td>
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<td></td>
<td>concurrently</td>
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<td>Identify documentation methods required by government regulatory bodies in</td>
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<td></td>
<td>clinical records. Emphasis on biopsychosocial history.</td>
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<td>AD 11</td>
<td>Techniques of Intervention and Referral</td>
<td>3</td>
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<td></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>Advisory: AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or</td>
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<td>concurrently</td>
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<td></td>
<td>Study and practice techniques used for crisis and beginning counseling,</td>
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<td>intake interviewing and referral. Using an experiential format, participants</td>
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<td></td>
<td>will learn and practice skills in attentive listening, recognizing and</td>
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<td></td>
<td>responding to different levels of client communication.</td>
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<tr>
<td>AD 12</td>
<td>Advanced Internship/Seminar</td>
<td>4</td>
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<td></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>27 hours lecture</td>
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<td>Advisory: Eligibility for AMLA 41W</td>
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<tr>
<td></td>
<td>Enhances the ability of non-native speakers to listen effectively and speak</td>
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<td></td>
<td>formally in a variety of situations. Emphasis is on note-taking,</td>
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<td>outlining, organizing speeches, and verbal articulation of ideas.</td>
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<td>AD 13</td>
<td>Internship/Seminar</td>
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<td>Degree Applicable, CSU</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>27 hours lecture</td>
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<td></td>
<td>126 hours lab</td>
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<td></td>
<td>Advisory: AD 1, AD 2, AD 3, AD 4, AD 5, AD 6, and six units of Restricted</td>
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<td></td>
<td>Electives taken prior and AD 8, AD 9, AD 10, AD 11 taken prior or concurrently</td>
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<td></td>
<td>The first of a two-semester sequence which places students in Alcohol/</td>
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<td></td>
<td>Drug Abuse agencies and organizations. This first semester emphasizes</td>
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<td>growth in self-awareness and professionalism, interviewing skills and group</td>
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<td></td>
<td>process skills.</td>
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<tr>
<td>AD 14</td>
<td>Advanced Internship/Seminar</td>
<td>4</td>
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<tr>
<td></td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td>27 hours lecture</td>
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<td></td>
<td>Advisory: AD 10 and AD 13</td>
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<td>The second of a two-semester sequence in which the student applies the</td>
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<td>values, concepts and skills gained from previous courses to the actual</td>
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<td></td>
<td>process of helping chemically dependent persons.</td>
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</tbody>
</table>

### AMERICAN LANGUAGE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AMLA 21S</td>
<td>Accent Reduction</td>
<td>2</td>
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<td></td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Pronunciation and listening for non-native speakers with emphasis on</td>
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<td>articulation, stress and intonation patterns, and listening. Students will</td>
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<td>analyze individual pronunciation strengths and weaknesses.</td>
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<tr>
<td>AMLA 22S</td>
<td>American Language</td>
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<td></td>
<td>Interpersonal Communication</td>
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<td></td>
<td>Enhances ability of non-native speakers to communicate in everyday</td>
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<td>and academic situations. Emphasis on grammatical accuracy and</td>
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<td>sophistication as well as confidence in communications in personal and</td>
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<td>professional settings.</td>
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<td>AMLA 23S</td>
<td>American Language</td>
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<tr>
<td></td>
<td>Formal Speaking</td>
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<td>Enhances the ability of non-native speakers to listen effectively and speak</td>
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<td>formally in a variety of situations. Emphasis is on note-taking,</td>
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<td>outlining, organizing speeches, and verbal articulation of ideas.</td>
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<td>AMLA 24</td>
<td>Idiomatic English</td>
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<td>Intermediate course in the study of idiomatic language, including</td>
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<td>common American idioms and proverbs, as used in everyday language</td>
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<td>situations.</td>
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<tr>
<td>AMLA 31R</td>
<td>American Language</td>
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<tr>
<td></td>
<td>Basic Reading</td>
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<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: Satisfactory score on appropriate Reading Placement Test or</td>
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<tr>
<td></td>
<td>successful completion of noncredit ESL Level 4 Basic reading and vocabulary</td>
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<td>for non-native speakers.</td>
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</tbody>
</table>
AMLA 32R — American Language Intermediate Reading  4 Units  
(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 Reading Placement Test, or successful completion of noncredit ESL levels 5, 6, or VESL  
Intermediate reading and vocabulary for non-native speakers.  
(Not Degree Applicable)  
AMLA 33R — American Language Advanced Reading  4 Units  
(May be taken for option of letter grade or Pass/No Pass) 
72 hours lecture  
Prerequisite: Successful completion of AMLA 32R or satisfactory score on appropriate Reading Placement Test  
Advanced reading and vocabulary for non-native speakers.  
(Not Degree Applicable)  
AMLA 41W — American Language Basic Writing  4 Units  
(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 noncredit ESL Level 4  
Basic grammar and writing for non-native speakers.  
(Not Degree Applicable)  
AMLA 42W — American Language Intermediate Writing  4 Units  
(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 41W or noncredit ESL Level 5 or VESL  
Advisory: AMLA 31R taken prior or concurrently  
Intermeditaete grammar and writing for non-native speakers.  
(Not Degree Applicable)  
AMLA 43W — American Language Advanced Writing  4 Units  
(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 32R taken prior or concurrently  
Advanced grammar and writing for non-native speakers.  
(Not Degree Applicable)  
AMLA 56 — American Language Nouns and Articles  1 Unit  
(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.  
(Not Degree Applicable)  
AMLA 57 — American Language Verb Review I  1 Unit  
(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.  
(Not Degree Applicable)  
AMLA 58 — American Language Verb Review II  1 Unit  
(May be taken for option of letter grade or Pass/No Pass) 
18 hours lecture  
Advanced work on modals, passive voice, passive modals, and conditionals for non-native English students. Exercises and writing practice will emphasize improved verb usage in writing.  
(Not Degree Applicable)  
AMLA 59 — American Language Prepositions  1 Unit  
(May be taken for option of letter grade or Pass/No Pass) 
18 hours lecture  
Spoken and written practice in prepositions for non-native English learners. Exercises and writing through reading and will apply their knowledge to written work.  
(Not Degree Applicable)  
AMLA 60 — American Language Verb Review III  1 Unit  
(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 verb usage in writing.  
(Not Degree Applicable)  
AMLA 61 — American Language Word Forms  1 Unit  
(May be taken for option of letter grade or Pass/No Pass) 
18 hours lecture  
Spoken and written practice in noun, verb, adjective, and adverb word forms for non-native English students.  
(Not Degree Applicable)  
ANAT 10A — Introductory Human Anatomy  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  
54 hours lecture  
108 hours lab  
Prerequisite: BIOL 1 or BIOL 4 or BIOL 4H  
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  
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.  
ANAT 40A — Human Prosecion  2 Units  
Degree Applicable, CSU  
108 hours lab  
Prerequisite: ANAT 35  
Techniques for human prospection. Regional exploration of superficial and deep human muscles at the gross level. Anatomy 40A and 40B must be taken in sequence in order to receive credit for college level prospection.  
ANAT 40B — Human Prosecion  2 Units  
Degree Applicable, CSU  
108 hours lab  
Prerequisite: ANAT 40A  
Techniques for human prospection. Regional exploration of the human organ systems at the gross level with emphasis on the organs, blood vessels and nerves of the body cavities.  
ANATOMY AND PHYSIOLOGY
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>ANAT 50</td>
<td>Basic Anatomy and Physiology</td>
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<tr>
<td>ANTH 1</td>
<td>Biological Anthropology</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>ANTH 5</td>
<td>Principles of Cultural Anthropology</td>
<td>3</td>
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<tr>
<td>ARAB 2</td>
<td>Continuing Elementary Arabic</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td>ARAB 1</td>
<td>Elementary Arabic</td>
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<tr>
<td>ANTH 99</td>
<td>Special Projects in Anthropology</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>ANTH 30</td>
<td>The Native American</td>
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<td>General Cultural Anthropology</td>
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<td>ANTH 2</td>
<td>Anthropic Research</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>ARAB 1H</td>
<td>Elementary Arabic (Honors)</td>
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<tr>
<td>ANTH 10</td>
<td>Design I - Elements of Design</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>ANTH 11</td>
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<td>ANTH 12</td>
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<td>Building and Zoning Codes</td>
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<td>ANTH 3</td>
<td>Archaeology</td>
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**Course Descriptions**

- **ANAT 50 — Basic Anatomy and Physiology**: 3 Units
  - Degree Applicable
  - 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: 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.

- **ANTH 2 — Anthropic Research**: 3 Units
  - Degree Applicable, CSU, UC
  - 54 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.

- **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
  - 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 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.

- **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
  - 71 hours lab
  - 36 hours lecture
  - Advisory: Eligibility for MATH 51
  - Architectural drawing techniques, including graphic standards, scales, orthographic, parallel, and perspective projections.

- **ARCH 12 — Architectural Materials and Specifications**: 4 Units
  - Degree Applicable, CSU
  - 54 hours lecture
  - 54 hours lab
  - Advisory: Eligibility for MATH 51
  - Building materials and specifications used in architecture and construction. Includes a lab component of common building material applications. Field trips are required.

- **ARCH 13 — Architectural Illustration**: 3 Units
  - Degree Applicable, CSU, UC
  - 36 hours lecture
  - 71 hours lab
  - Advisory: ARCH 11
  - Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio.
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<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings - I</td>
<td>3</td>
<td>CSU, UC</td>
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<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
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<td>ARCH 18</td>
<td>Architectural CAD and BIM</td>
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<td>ARCH 21</td>
<td>Design II - Architectural Design</td>
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<tr>
<td>ARCH 26</td>
<td>Architectural CAD Working Drawings</td>
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<td>CSU</td>
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<tr>
<td>ARCH 27</td>
<td>Design III - Environmental Design</td>
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<tr>
<td>ARCH 28</td>
<td>Architectural CAD Illustration and Animation</td>
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<td>CSU</td>
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<td>ARCH 32</td>
<td>World Architecture II</td>
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<tr>
<td>ARCH 89</td>
<td>Architectural Work Experience</td>
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<td>ANIM 101A</td>
<td>Drawing - Gesture and Figure</td>
<td>3</td>
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<tr>
<td>ANIM 101B</td>
<td>Figure Gesture - Design</td>
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<td>ANIM 101C</td>
<td>Figure Gesture - Design</td>
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<td>Figure Gesture - Design</td>
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<td>CSU</td>
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**ARCH 15 — Architectural Working Drawings - I**
36 hours lecture
72 hours lab
Advisory: ARCH 11, ARCH 12, ARCH 14, and eligibility for MATH 51
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.

**ARCH 16 — Basic CAD and Computer Application**
4 Units
54 hours lecture
54 hours lab
Advisory: Eligibility for MATH 51
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).

**ARCH 18 — Architectural CAD and BIM**
3 Units
Degree Applicable
36 hours lecture
71 hours lab
Advisory: ARCH 11 or ARCH 16
3-D Computer Aided Design and Drafting (CAD) and Building Information Modeling (BIM) for architectural design and design development. Portfolio of 3-D building models and extracted 2-D drawings will be produced.

**ARCH 21 — Design II - Architectural Design**
3 Units
Degree Applicable, CSU, UC
36 hours lecture
72 hours lab
Advisory: ARCH 10, ARCH 11, ARCH 13
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.

**ARCH 23 — Architectural Presentations**
3 Units
Degree Applicable, CSU, UC
36 hours lecture
72 hours lab
Advisory: ARCH 10, ARCH 11 taken prior
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.

**ARCH 26 — Architectural CAD Working Drawings**
3 Units
Degree Applicable
36 hours lecture
72 hours lab
Advisory: ARCH 15, ARCH 18 or equivalent experience
Advanced architectural CAD drawings. Portfolio of working drawing and presentation applications of integrated 2-D and 3-D CAD models will be produced.

**ARCH 27 — Design III - Environmental Design**
3 Units
Degree Applicable, CSU, UC
36 hours lecture
72 hours lab
Advisory: ARCH 21, ARCH 23 or equivalent experience
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.

**ARCH 28 — Architectural CAD Illustration and Animation**
3 Units
Degree Applicable, CSU
36 hours lecture
71 hours lab
Advisory: ARCH 18
Architectural CAD 3-D illustration, rendering and animation, Virtual walk-through and fly-through videos of interior and exterior 3-D models with photo-realistic materials and lighting will be produced.

**ARCH 29 — Design IV - Advanced Project**
3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: ARCH 23, ARCH 27 or equivalent experience
Advanced design seminars and complex building design projects in architecture, including portfolio development.

**ARCH 31 — World Architecture I**
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Development of architecture including ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Influence of geography, religion, and socio-economic movements on architecture.

**ARCH 32 — World Architecture II**
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.
### ANIM 104 — Drawing Fundamentals 3 Units
36 hours lecture
72 hours lab
Emphasizes creative expression through the use of drawing media and techniques. Emphasis is placed on use of light logic, atmospheric and linear perspective. Includes basic drawing skills and methods of achieving compositional integrity through objective analysis and synthesis.

### ANIM 107 — Figure in Motion 3 Units
(May be taken four times for credit)
36 hours lecture
72 hours lab
Prerequisite: ANIM 101
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.

### ANIM 108 — Principles of Animation 3 Units
36 hours lecture
71 hours lab
Principles of drawing for traditional animation concentrating on the mechanics of movement, timing, and emotion for the creation of expressive line drawings.

### ANIM 109 — Advanced Principles of Animation 3 Units
36 hours lecture
71 hours lab
Prerequisite: ANIM 108
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.

### ANIM 110A — Animal Drawing 1.5 Units
18 hours lecture
36 hours lab
Prerequisite: ARTD 15A or ANIM 104
Explores 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.

### ANIM 110B — Animal Drawing 1.5 Units
18 hours lecture
36 hours lab
Prerequisite: ANIM 111A
Contemporary and traditional approaches to sketching animals using drawing techniques for rapid visualization. Emphasizes and develops elements of design for the purposes of visual communication and storytelling. Requires several off-campus field trips.

### ANIM 111 — Storyboarding 3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Storyboarding with emphasis on storytelling, cinematography, drawing, and notation as it relates to the animation industry.

### ANIM 112 — Script Development for Animation 3 Units
May be taken for option of letter grade or Pass/No Pass
54 hours lecture
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.

### ANIM 113 — Introduction to Gaming 3 Units
May be taken for option of letter grade or Pass/No Pass
36 hours lecture
72 hours lab
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.

### ANIM 114 — Nature and History of Animation 3 Units
Degree Applicable, CSU
54 hours lecture
History of animated film and its relationship to the disciplines of art, communication, theater, music, literature, film making, philosophy, and world history. Includes early pioneers through current visionaries, social influences that affected the development of animated film and the social impact of the animated product, and the differences between live action film and inanimate, nonliving objects in a variety of forms such as two-dimensional, clay, or computer created.

### ANIM 115 — Character Development 1.5 Units
18 hours lecture
36 hours lab
Prerequisite: ARTD 15A or ANIM 104
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.

### ANIM 116 — Animation Background Layout 3 Units
36 hours lecture
71 hours lab
Prerequisite: ARTD 15A or ANIM 104
Principles of design, composition and story as applied to layout and background creation for animation. Industry appropriate drawing and painting techniques exploring rendering, modeling, light logic, perspective, color, space and environments are included.

### ANIM 117 — Animation Background Painting 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Prerequisite: ARTD 15A or ANIM 104
Principles of design, composition and story as applied to background creation for animation. Industry appropriate drawing and painting techniques exploring rendering, modeling, light logic, perspective, color, space and environments are included.

### ANIM 118 — Background Painting 3 Units
Degree Applicable
36 hours lecture
72 hours lab
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.

### ANIM 119 — Nature and History of Animation 3 Units
Degree Applicable, CSU
54 hours lecture
History of animated film and its relationship to the disciplines of art, communication, theater, music, literature, film making, philosophy, and world history. Includes early pioneers through current visionaries, social influences that affected the development of animated film and the social impact of the animated product, and the differences between live action film and inanimate, nonliving objects in a variety of forms such as two-dimensional, clay, or computer created.

### ANIM 120 — Script Development for Animation 3 Units
Degree Applicable
54 hours lecture
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.

### ANIM 121 — Nature and History of Animation 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
History of animated film and its relationship to the disciplines of art, communication, theater, music, literature, film making, philosophy, and world history. Includes early pioneers through current visionaries, social influences that affected the development of animated film and the social impact of the animated product, and the differences between live action film and inanimate, nonliving objects in a variety of forms such as two-dimensional, clay, or computer created.

### ANIM 122 — Nature and History of Animation 3 Units
Degree Applicable, CSU
54 hours lecture
History of animated film and its relationship to the disciplines of art, communication, theater, music, literature, film making, philosophy, and world history. Includes early pioneers through current visionaries, social influences that affected the development of animated film and the social impact of the animated product, and the differences between live action film and inanimate, nonliving objects in a variety of forms such as two-dimensional, clay, or computer created.

### ANIM 123 — Modeling, Texture Mapping and Lighting 3 Units
Degree Applicable
36 hours lecture
71 hours lab
Advisory: ANIM 130
3D polygon modeling and UV polygon texture mapping used in computer graphic games, TV programs or film. Includes camera animation with stage and environmental scenes featuring fly through, lighting setup and lighting visual effects. Software used is Autodesk Maya.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM 134</td>
<td>Visual Effects I: Dynamics</td>
<td>1.5</td>
<td>Degree Applicable. 18 hours lecture, 36 hours lab. 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>ANIM 135</td>
<td>Visual Effects II: Particle Systems</td>
<td>1.5</td>
<td>Degree Applicable. 18 hours lecture, 36 hours lab. 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>ANIM 136</td>
<td>Animation Environment Layout</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 71 hours lab. Advisory: ANIM 130 and ANIM 132. Create a digital 3D environment. Design, model, texture, and light a 3D digital environment for a computer graphics game, TV program or film.</td>
</tr>
<tr>
<td>ANIM 137A</td>
<td>Work Experience in New Digital Media</td>
<td>1-3</td>
<td>Degree Applicable. (May be taken four times for credit). 75 to 225 hours lab. Advisory: Completion of the first and second semester of the Animation Program. This course is designed to provide actual on-the-job experience in Animation 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 unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>ANIM 137</td>
<td>Advanced 3-D Modeling</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 72 hours lab. Advisory: ANIM 132. An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.</td>
</tr>
<tr>
<td>ANIM 146</td>
<td>Advanced 3-D Animation</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 72 hours lab. Advisory: ANIM 132. Animation of a pre-selected 3-D dynamic environment project and development of characteristics and personality of 3-D characters through animation.</td>
</tr>
<tr>
<td>ANIM 148</td>
<td>Demo-Reel</td>
<td>1.5</td>
<td>Degree Applicable. 18 hours lecture, 36 hours lab. Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions.</td>
</tr>
<tr>
<td>ANIM 145</td>
<td>Animation Environment Layout</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 72 hours lab. Advisory: ANIM 132. An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.</td>
</tr>
<tr>
<td>ANIM 147</td>
<td>Visual Effects I: Dynamics</td>
<td>1.5</td>
<td>Degree Applicable. 36 hours lecture, 72 hours lab. Advisory: ANIM 132. Animation of a pre-selected 3-D dynamic environment project and development of characteristics and personality of 3-D characters through animation.</td>
</tr>
<tr>
<td>ANIM 148</td>
<td>Demo-Reel</td>
<td>1.5</td>
<td>Degree Applicable. 18 hours lecture, 36 hours lab. Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions.</td>
</tr>
<tr>
<td>ANIM 149</td>
<td>Motion Graphics, Compositing and Visual Effects</td>
<td>3</td>
<td>Degree Applicable. (May be taken for option of letter grade or Pass/No Pass). 36 hours lecture, 71 hours lab. Prerequisite: ANIM 130. Elements of motion graphics: design, typography, animation, compositing, visual effects, and editing in a production environment (i.e. TV, Film, DVD, or Web) using industry standard software.</td>
</tr>
<tr>
<td>ANIM 150</td>
<td>Web Animation With Flash</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 71 hours lab. Prerequisite: ANIM 70 or ARTC 100. Principles of animation using Adobe Flash for web and multimedia.</td>
</tr>
<tr>
<td>ARTC 120</td>
<td>Graphic Design II</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 71 hours lab. Prerequisite: ARTC 70 or ARTC 100. Digital illustration, design, skills, and concepts working primarily with vector art. Focuses on using Adobe Illustrator as the primary development tool.</td>
</tr>
<tr>
<td>ARTC 160</td>
<td>Typography</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 71 hours lab. Prerequisite: ARTC 100. Design and use of basic letterforms, type families, characteristics, history, and principles of typography in graphic design. Traditional and digital skills for the art of typeface design, typographic layout, expressive typography, and conceptual thinking.</td>
</tr>
<tr>
<td>ARTC 165</td>
<td>Illustration</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 71 hours lab. Corequisite: ARTD 20 or ARTD 15A or ARTD 17A or ANIM 101 or ANIM 104 (may have been taken previously). Introduction to contemporary illustration with an emphasis on story, editorial, and advertising applications. 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.</td>
</tr>
<tr>
<td>ARTC 200</td>
<td>Web Design</td>
<td>3</td>
<td>Degree Applicable. 36 hours lecture, 71 hours lab. Prerequisite: ARTC 100. Design, usability, production, and marketing of web site development using contemporary methods including XHTML, CSS, and contemporary tools including Adobe Dreamweaver and Flash. Web-focused multimedia concepts, including animation and video integration are explored.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Notes</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>ARTC 220</td>
<td>Commercial Art Studio - Special Projects</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>ARTC 229</td>
<td>Graphic Design Internship</td>
<td>1-3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>ARTC 240</td>
<td>Multimedia Design</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>ARTC 280</td>
<td>Art, Artists and Society</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>ARTC 290</td>
<td>Portfolio</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>ARTG 20B</td>
<td>Intermediate Exhibition Production</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>ARTG 21A</td>
<td>Introduction to Exhibition Production</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>ARTG 21B</td>
<td>Exhibition Design and Art Gallery Operation</td>
<td>1-3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>ARTZ 50</td>
<td>Specialized Studio-Art Studies</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
</tbody>
</table>

**Course Descriptions**

**ART: BASIC STUDIO ARTS**

**ARTC 229 — Graphic Design Internship**
- 1 to 3 units
- Degree Applicable
- May be taken four times for credit
- May be taken for Pass/No Pass only
- Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
- Advisory: ART 120 and ART 220
- Provides students with the-on-the-job experience in graphic design, web design, media design, advertising design, illustration or other graphic design related field in an approved work site. A minimum of 75 paid clock hours or 60 non-paid 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 experience.

**ART: SPECIAL STUDIO ARTS**

**ARTG 20 — Art, Artists and Society**
- 3 units
- Degree Applicable, CSU
- May be taken four times for credit
- 75 to 225 hours lab
- Prerequisite: ART 20
- Concepts and hands-on applications of curatorial processes, management skills, and gallery operations. The professional side of the arts with emphasis on contemporary art, theories and media will be explored. Field trips required.

**ART: GALLERY AND PROFESSIONAL PRACTICES**

**ARTZ 50 — Specialized Studio-Art Studies**
- 2 units
- Degree Applicable, CSU
- May be taken four times for credit
- 18 hours lecture
- 54 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.
## Course Descriptions

### ARTS 30A — Ceramics: Beginning I 3 Units

- **Degree Applicable, CSU, UC**
- 36 hours lecture
- 71 hours lab
- Prerequisite: ARTS 30A

Clay, glazes and firing through lecture and projects in hand building and on the wheel. Emphasis on integrating materials and design by means of advanced problems in the three-dimensional design as well as practical experiments with various media. Field trip required.

### ARTS 30B — Ceramics: Beginning II 3 Units

- **Degree Applicable, CSU, UC**
- (May be taken for option of letter grade or Pass/No Pass)
- 36 hours lecture
- 71 hours lab
- Prerequisite: ARTS 30A

Clay, glazes and firing in lecture and projects in hand building and on the wheel. Emphasis on integration of form and content, mixing glazes and the variety of firing techniques. Field trip required.

### 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 31C — 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 34 — The Sculpture Vessel 3 Units

- **Degree Applicable, CSU**
- (May be taken for option of letter grade or Pass/No Pass)
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTS 33
- Advisory: ARTS 34

Advanced study of the ceramic vessel through the integration of technique, form and content. Field trips required.

### 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 34A — Sculpture: Mold Making 3 Units

- **Degree Applicable**
- (May be taken for option of letter grade or Pass/No Pass)
- 36 hours lecture
- 71 hours lab
- Prerequisite: ARTS 42

Construction and use of flexible and plaster molds.

### ARTS 34B — Sculpture: Special Effects Makeup 3 Units

- **Degree Applicable**
- (May be taken for option of letter grade or Pass/No Pass)
- 36 hours lecture
- 71 hours lab
- Prerequisite: ARTS 46A

Sculpture special effects modeling, molding and casting techniques and materials applied to create appliances for the full human head, torso or mouth.
### ART: TWO-DIMENSIONAL STUDIO ARTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 99</td>
<td>Sculpture Special Studies</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 15A</td>
<td>Drawing: Beginning</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>ART 15B</td>
<td>Drawing: Intermediate</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Drawing course emphasizing perceptual and technical skills to compose in dry and fluid media. Uses the formal elements and principles in black, white and color in representational and expressionistic styles.</td>
</tr>
<tr>
<td>ART 16A</td>
<td>Drawing: Perspective</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>ART 17A</td>
<td>Drawing: Life</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Explores both contemporary and traditional approaches to sketching/drawing the human figure. Surface anatomy, proportion, line, light and shadow, composition, and the expressive potential of the human figure will be explored.</td>
</tr>
<tr>
<td>ART 17B</td>
<td>Drawing: Life</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Extends and expands the principles and techniques introduced in ARTD 17A. More emphasis is placed on personal interpretation, individual expression, and media exploration.</td>
</tr>
<tr>
<td>ART 20</td>
<td>Design: Two Dimensional</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Development of perception through study of the relationships of two-dimensional dynamics and organization. Emphasis is placed on the vocabulary, theory, and analysis of the formal elements and principles of all forms of art through lecture, discussion, oral and written criticism and testing as they apply to studio projects in design for all disciplines of the arts. Study will emphasize the fundamental organization and workings of the two-dimensional picture plane in black/white and achromatic value and basic color mixing.</td>
</tr>
<tr>
<td>ART 21</td>
<td>Design: Color and Composition</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Color theory and relationships of pigment and light. Emphasis on color harmonies, color matching, the effects of light, color perception and expression in their application to design and composition and as used in all disciplines of the arts.</td>
</tr>
<tr>
<td>ART 23A</td>
<td>Drawing: Head and Hands</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td>Contemporary and traditional approaches to constructing images of the human head and hands. Anatomy, proportion, light logic, composition, expression and the interaction of form and content.</td>
</tr>
<tr>
<td>ART 23B</td>
<td>Drawing: Advanced Heads and Hands</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td>Explores contemporary and traditional approaches to drawing the human head and hands. Emphasizes and develops techniques for rendering as well as capturing a likeness.</td>
</tr>
<tr>
<td>ART 25A</td>
<td>Beginning Painting I</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Development of basic paint applications in various styles and subjects focusing on the formal elements of composition, light logic, and color.</td>
</tr>
<tr>
<td>ART 25B</td>
<td>Beginning Painting II</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Creation of large paintings through various styles including mixed media. Includes conceptualization and communication of ideas and solving compositional and technical painting problems with a variety of materials.</td>
</tr>
<tr>
<td>ART 26A</td>
<td>Intermediate Painting I</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Creation of large paintings focusing on conceptual issues and art historical influences. Conceptualization of work is done by responding to current and past art movements and popular culture in order to create unique artworks.</td>
</tr>
<tr>
<td>ART 26B</td>
<td>Intermediate Painting II</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td>Development of a personal style focusing on conceptual issues and art historical influences. Students will conceptualize their work by responding to current and past art movements and popular culture in order to create unique artworks.</td>
</tr>
</tbody>
</table>
**Course Descriptions**

- **ARTD 27 — Painting: Watercolor** 3 Units  
  Degree Applicable, CSU, UC  
  (May be taken for option of letter grade or Pass/No Pass)  
  36 hours lecture  
  71 hours lab  
  Prerequisite: ARTD 15A or ARTD 20 or ARTD 25A  
  Basic watercolor techniques as they relate to compositional and technical problems in painting. Emphasis is placed upon painting skills as related to transparent watercolor methods as well as exploration into opaque and mixed media approaches.

- **ARTD 43A — Introduction to Printmaking** 3 Units  
  Degree Applicable, CSU  
  36 hours lecture  
  71 hours lab  
  Creative techniques in fine art printmaking using relief and intaglio processes. Emphasis is on developing skills, vocabulary and analysis of its aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required.

- **ARTD 43B — Intermediate Printmaking in Intaglio/Relief** 3 Units  
  Degree Applicable, CSU  
  (May be taken for option of letter grade or Pass/No Pass)  
  36 hours lecture  
  71 hours lab  
  Prerequisite: ARTD 43A  
  Creation of complex editioned color prints in relief and intaglio printmaking from multiple matrices. Focus is on color registration, project collaboration, and learning how to combine different printing techniques in order to realize personal artistic expression. Field trips may be required.

- **ARTD 44A — Printmaking: Introduction to Lithography** 3 Units  
  Degree Applicable, CSU  
  36 hours lecture  
  71 hours lab  
  Creative techniques in planographic printmaking using lithography. Emphasis is on skill development, vocabulary expansion, and critical analysis of aesthetics, historical context, and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required.

- **ARTD 44B — Printmaking: Intermediate Lithography** 3 Units  
  Degree Applicable, CSU  
  (May be taken for option of letter grade or Pass/No Pass)  
  36 hours lecture  
  71 hours lab  
  Prerequisite: ARTD 44A  
  Single and multi-color composition in lithographic printmaking. Focus is on techniques in stone lithography, color registration, and composition issues. Field trips may be required.

- **ARTD 45A — Printmaking: Introduction to Screenprinting** 3 Units  
  Degree Applicable, CSU  
  36 hours lecture  
  71 hours lab  
  Creative techniques in fine art screenprinting printmaking. Emphasis is on developing skills, vocabulary and critical understanding of the different stencil methods used in serigraphy. Screenprinting's aesthetics, historical context and role in contemporary society are examined through projects, discussion of craftsmanship and content by oral and written criticism. Field trips may be required.

- **ARTD 45B — Printmaking: Intermediate Screenprinting** 3 Units  
  Degree Applicable, CSU  
  (May be taken for option of letter grade or Pass/No Pass)  
  36 hours lecture  
  71 hours lab  
  Prerequisite: ARTD 45A  
  Complex multi-color registration in screenprinting. Emphasis on registration of colors, exploration of printing on a variety of substrates, and integration of social and political issues in print design. Field trips may be required.

- **ARTD 46A — Introduction to Painterly Printmaking** 3 Units  
  Degree Applicable, CSU  
  36 hours lecture  
  71 hours lab  
  Printmaking methods including carbonium prints and collography with the main focus on monotype and monoprint. Emphasis on developing skills in painterly approaches to printmaking, its vocabulary, and critical understanding of its aesthetics, historical context and craftsmanship through projects, discussion, and oral and written criticism. Field trips may be required.

- **ARTD 46B — Intermediate Painterly Printmaking** 3 Units  
  Degree Applicable, CSU  
  (May be taken for option of letter grade or Pass/No Pass)  
  36 hours lecture  
  71 hours lab  
  Prerequisite: ARTD 46A  
  Painterly printmaking techniques such as viscosity etchings and the complexities of simultaneous relief and intaglio printing inherent in collography. Emphasis on achieving personal artistic expression. Field trips may be required.

- **ARTD 47A — Printing: Alternative Methods Relief and Intaglio** 3 Units  
  Degree Applicable, CSU  
  36 hours lecture  
  71 hours lab  
  Non-toxic printmaking processes that use a variety of light sensitive polymer plates for intaglio and relief, preparation of imagery with digital means, and combining these techniques with traditional processes. Vocabulary and critical understanding of aesthetics, contemporary context, and craftsmanship are developed through projects, discussion, and oral and written criticism. Field trips may be required.

- **ARTD 99 — Figure Drawing Special Studies** 2 Units  
  Degree Applicable  
  (May be taken four times for credit)  
  108 hours lab  
  Prerequisite: ARTD 17A, ANIM 101A, or ARTD 23A  
  Specialized studies exploring advanced and complex figure drawing projects with emphasis on the development of an individual's creative direction. Content of each course and the methods of study vary from semester to semester.

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**ART HISTORY**

- **AHIS 1 — Understanding the Visual Arts** 3 Units  
  Degree Applicable, CSU, UC  
  54 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 AHIS 1 and ARTB 1.

- **AHIS 1H — Understanding the Visual Arts - Honors** 3 Units  
  Degree Applicable, CSU, UC  
  54 hours lecture  
  Prerequisite: Acceptance into the Honors Program  
  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 ARTA 1) and AHIS 1H.

- **AHIS 3 — History of Women and Gender in Art** 3 Units  
  Degree Applicable, CSU, UC  
  54 hours lecture  
  Advisory: Eligibility for ENGL 1A  
  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.

- **AHIS 3H — History of Women and Gender in Art - Honors** 3 Units  
  Degree Applicable, CSU, UC  
  54 hours lecture  
  Prerequisite: Acceptance into the Honors Program  
  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. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 3 (formerly ARTA 3) and AHIS 3H.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites/Advisory</th>
<th>Requires Consent</th>
<th>Degree Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHIS 4H</td>
<td>History of Modern Art - Honors</td>
<td>3</td>
<td>An examination of Modern art formed in the 20th century, emphasizing international and multicultural character of Modern art.</td>
<td>Acceptance into the Honors Program</td>
<td>Yes</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>AHIS 5H</td>
<td>History of Western Art: Renaissance - Honors</td>
<td>3</td>
<td>An examination of Western art from the Renaissance through Modern periods, demonstrating the relationship of various visual arts to each other and to the cultural context within which they were produced.</td>
<td>Acceptance into the Honors Program</td>
<td>Yes</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>AHIS 6H</td>
<td>History of Modern Art - Honors</td>
<td>3</td>
<td>An examination of Modern art formed in the 20th century, emphasizing international and multicultural character of Modern art.</td>
<td>Acceptance into the Honors Program</td>
<td>Yes</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>AHIS 10</td>
<td>A History of Greek and Roman Art and Architecture</td>
<td>3</td>
<td>A critical history of Greek and Roman art before 500 CE, examining their cultural contexts and their impact on Europe and America.</td>
<td>Eligibility for ENGL 68</td>
<td>Yes</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>AHIS 11</td>
<td>History of African, Oceanic, and Native American Art</td>
<td>3</td>
<td>An examination of the cultural contexts of African, Oceanic, and Native American Art.</td>
<td>Eligibility for ENGL 1A</td>
<td>Yes</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>AHIS 12H</td>
<td>History of Precolumbian Art - Honors</td>
<td>3</td>
<td>An examination of the cultural contexts of Pre-Columbian Mesoamerica and Andean South America.</td>
<td>Eligibility for ENGL 68</td>
<td>Yes</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

**Course Descriptions**

**ASTRONOMY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites/Advisory</th>
<th>Requires Consent</th>
<th>Degree Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 5</td>
<td>Introduction to Astronomy</td>
<td>3</td>
<td>A non-technical survey of the Universe. Fundamental concepts and facts of astronomy.</td>
<td>Eligibility for ENGL 1A</td>
<td>No</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>ASTR 5H</td>
<td>Introduction to Astronomy - Honors</td>
<td>3</td>
<td>A non-technical survey of the Universe. Fundamental concepts and facts of astronomy.</td>
<td>Eligibility for ENGL 1A; Acceptance into Honors Program</td>
<td>Yes</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

**ADVISORY**

- AHIS 1 (formerly ARTA 1)
- AHIS 12 (formerly ARTA 12)

**NOTES**

- Students may not receive credit for both ASTR 5H and ASTR 5.
- Students repeating this course will make individual contracts.
- Students may not receive credit for both AHIS 5 (formerly ARTA 5) and AHIS 5H.
- Students may not receive credit for both AHIS 6 (formerly ARTA 6) and AHIS 6H.
- Students may not receive credit for both AHIS 12 (formerly ARTA 12) and AHIS 12H.
- Students may not receive credit for both ASTR 5H and ASTR 5.
Course Descriptions

**BIOL 1 — General Biology**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: ENGL 67  
Advisory: READ 90  
Major principles and concepts, including cellular biology, energy relationships, biological systems, heredity, evolution and ecology for non-science majors.

**BIOL 2 — Plant and Animal Biology**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
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.

**BIOL 3 — Ecology and Field Biology**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Identification and ecological relationships of common local plants and animals. Emphasizes evolutionary relationships; ecology including animal behavior, communities, ecosystems, wilderness and wildlife preservation, and population dynamics. Techniques of collecting and preserving. Many laboratory meetings conducted off campus; most trips require walking/hiking. Includes one weekend or all day field trip.

**BIOL 4 — Biology for Majors**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
72 hours lab  
Prerequisite: CHEM 10 or CHEM 40, and MATH 71  
Introduction to cell and molecular biology including eukaryotic cells, eukaryotic organelles, protein structure and functions; DNA and RNA structure and functions; protein synthesis; genome organization in viruses, prokaryotes and eukaryotes; gene cloning; protein and DNA technology and applications of genetic engineering.

**BIOL 4H — Biology for Majors - Honors**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
72 hours lab  
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. Includes one hour discussion group per week.

**BIOL 5 — Contemporary Health Issues**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Provides an overview of contemporary health issues known to affect the quality and longevity of life. Topics include: sexuality and reproduction, stress management, fitness and nutrition, substance use and abuse, and environmental quality. Emphasis is on prevention of illness and injuries. May satisfy the Health Education requirement for a California State Teaching Credential.

**BIOL 6 — Humans and the Environment**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Ecological concepts to aid understanding our environmental crisis and determining courses of action to correct the problem. Emphasis will be placed on specific problems of population, pollution, preservation of wildlife and wilderness, and open space. A historical appraisal of human attitudes toward the land and of the necessity of developing a new land ethic.

**BIOL 6L — Humans and the Environment Laboratory**  
2 Units  
Degree Applicable, CSU, UC  
108 hours lab  
Prerequisite: BIOL 6 (may have been taken previously)  
Investigates major principles and problems of humans and the environment in the field and in the biological science laboratory. Most laboratory meetings will be conducted at off-campus locations. Some trips will require significant amounts of walking. Course includes one weekend field trip. Taking BIO 6 prior to BIO 6L is highly recommended.

**BIOL 8 — Cell and Molecular Biology**  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: BIOL 4 or BIOL 4H, and CHEM 50  
Introduction to cell and molecular biology including eukaryotic cells, eukaryotic organelles, protein structure and functions; DNA and RNA structure and functions; protein synthesis; genome organization in viruses, prokaryotes and eukaryotes; gene cloning; protein and DNA technology and applications of genetic engineering.
and international problems and ethical issues facing public health today. Instruction prepares students to identify and assess important national health practice at the global, national, state, and community levels.  

**Course Descriptions**

<table>
<thead>
<tr>
<th><strong>Course Code</strong></th>
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<th><strong>Units</strong></th>
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</thead>
<tbody>
<tr>
<td>BIOL 15H — Human Sexuality - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>S4 hours lecture</td>
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<tr>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td>Survey of biological, cultural, and ethical aspects of human sexuality. Contains mature and sexually explicit content. An honors course designed to provide an enriched experience. Students may not receive credit for both BIOL 15 and BIOL 15H.</td>
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<th><strong>Degree Applicable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 17 — Neurobiology and Behavior</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>S4 hours lecture</td>
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<tr>
<td>An integrated analysis of the biological, ecological and evolutionary bases of behavior (ethology). Historical and evolutionary contexts are emphasized through a detailed consideration of the psychobiological, ecological, ontological and sociobiological determinants of animal behavior. Field trips may be required.</td>
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</thead>
<tbody>
<tr>
<td>BIOL 20 — Marine Biology</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>S4 hours lecture</td>
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<tr>
<td>An introduction to the marine environment including the principles of marine science, biology of marine invertebrates and vertebrates, structure and function of marine ecosystems, and human impact on the ocean. Field trip required.</td>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>BIOL 21 — Marine Biology Laboratory</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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</tr>
<tr>
<td>S4 hours lab</td>
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<tr>
<td>Corequisite: BIOL 20 (may have been taken previously)</td>
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<tr>
<td>An introduction to the field and laboratory aspects of the marine environment. Emphasizes the structure and function of marine invertebrates and vertebrates, ecology of intertidal organisms and ecology of estuaries. Field trips required.</td>
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<th><strong>Degree Applicable</strong></th>
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</thead>
<tbody>
<tr>
<td>BIOL 24 — Introduction to Public Health</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>S4 hours lecture</td>
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<td></td>
<td></td>
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<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td>Public health concepts and practice by examining the philosophy, purpose, history, organization, function, tools, activities and outcomes of public health practice at the global, national, state, and community levels. Instruction prepares students to identify and assess important national and international problems and ethical issues facing public health today.</td>
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<tr>
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<th><strong>Units</strong></th>
<th><strong>Degree Applicable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 24L — Fundamentals of Genetics Lab</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>S4 hours lab</td>
<td></td>
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<tr>
<td>Corequisite: BIOL 34</td>
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<tr>
<td>(May have been taken previously)</td>
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<tr>
<td>Experiments and problem solving in genetics including Mendelian Genetics, linkage and recombination, cell division, mutation, molecular genetics including use of PCR and electrophoresis, population genetics, and bioinformatics.</td>
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<th><strong>Degree Applicable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 50 — Biology Basic Skills</td>
<td>.5 Unit</td>
<td>Not Degree Applicable</td>
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</tr>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>9 hours lecture</td>
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<tr>
<td>Basic skills needed for students to succeed in biological science classes. Topics include a contrast of the academic demands of science to non-science disciplines, preparation for biological laboratory experiences as well as lectures, development of personal study plan to manage the large volume of information, interpretation of biological graphs and diagrams, introduction to common Latin and Greek words to build vocabulary, use of memorization techniques, application of test-taking strategies for biological exams, especially lab practice, and analysis of test results. These techniques and strategies will be discussed using biological concepts and vocabularies as examples. Recommended to be taken concurrently with any biological science class.</td>
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<tr>
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<th><strong>Degree Applicable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 99A — Special Projects in Biology</td>
<td>1 to 2 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>(May be taken four times for credit)</td>
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<tr>
<td>18 to 36 hours lecture</td>
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<tr>
<td>In order to offer 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 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.</td>
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<th><strong>Degree Applicable</strong></th>
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</thead>
<tbody>
<tr>
<td>BTHY 3 — Plant Structures, Functions, and Diversity</td>
<td>5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>S4 hours lecture</td>
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<tr>
<td>108 hours lab</td>
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<td></td>
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</tr>
<tr>
<td>Advisory: BIOL 1 or BIOL 4 and Eligibility for ENGL 1A</td>
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<tr>
<td>An introduction to the structures, functions and comparative morphology, and phylogenetic relationships of organisms from bacteria to angiosperms with an emphasis on ethnobotany, evolution, classification, ecology and conservation. Several laboratory meetings are mandatory field trips, conducted off-campus, and students provide their own transportation.</td>
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<th><strong>Degree Applicable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7 — Principles of Accounting - Financial</td>
<td>5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>90 hours lecture</td>
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</tr>
<tr>
<td>Prerequisite: BUSA 11 or eligibility for MATH 51</td>
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<tr>
<td>Advisory: Eligibility for ENGL 1A</td>
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</tr>
<tr>
<td>Introduction to financial accounting required of Business Administration and Accounting majors. Defines financial accounting and its relevance to business decision makers, accounting concepts and techniques, analysis and recording of financial transactions, and preparation, analysis and interpretation of financial statements focusing on application of generally accepted accounting practices. Includes asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, ethics, and financial statement analysis. General Ledger Accounting Software program is integrated throughout and used to complete various homework assignments.</td>
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<th><strong>Degree Applicable</strong></th>
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</thead>
<tbody>
<tr>
<td>BUSA 8 — Principles of Accounting - Managerial</td>
<td>5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>90 hours lecture</td>
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<tr>
<td>Prerequisite: BUSA 7</td>
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<tr>
<td>Review of managerial accounting, job and process costing, cost-volume-profit analysis, cost behavior analysis and use, cost allocation, the budgeting process, responsibility accounting in a decentralized operation, standard costing, pricing decisions, relevant costs for decision making, segment reporting, variable costing, capital budgeting decisions, inventory management and analysis, and financial statement analysis. Gives the student the tools and methods needed for decision making.</td>
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<th><strong>Degree Applicable</strong></th>
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</thead>
<tbody>
<tr>
<td>BUSA 11 — Fundamentals of Accounting</td>
<td>3 Units</td>
<td>Degree Applicable, UC</td>
<td></td>
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<tr>
<td>54 hours lecture</td>
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<tr>
<td>Prerequisite: BUSA 68 or eligibility for MATH 50</td>
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<tr>
<td>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.</td>
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<tbody>
<tr>
<td>BUSA 21 — Cost Accounting</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<tr>
<td>72 hours lecture</td>
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<tr>
<td>18 hours lab</td>
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<tr>
<td>Prerequisite: BUSA 8</td>
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</tr>
<tr>
<td>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 costing/pricing methods, cost allocation, inventory management, capital budgeting, and transfer pricing.</td>
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</tbody>
</table>
COURSE DESCRIPTIONS

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 business and accounting problems. Focuses on the application of calculator features to specific business concepts including banking records, payroll, invoice pricing and inventory.

BUSA 54 — 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, partnership 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 60 — 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 31
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 — Personal Financial Planning 3 Units Degree Applicable, CSU
54 hours lecture
Personal and family financial planning for those who wish to understand their own finances across the lifespan and assist others in money management. Topics include financial goal setting, budgeting, consumer credit, debt management, banking functions, income taxes, home ownership, insurance, investing, and retirement planning. 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 for option of letter grade or Pass/No Pass)
75 to 300 hours lab
Prerequisite: Eligibility for 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.

BUSO 5 — Business English 3 Units Degree Applicable
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Thorough training in the skills and techniques of English, as applied to business situations, with emphasis on effective paragraphs and memos.

BUSO 25 — Business Communications 3 Units Degree Applicable, CSU
May be taken for option of letter grade or Pass/No Pass
54 hours lecture
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.

BUSO 26 — Oral Communications for Business 3 Units Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
27 hours lecture
Develops a broad word command of new and specialized business vocabulary for use in various businesses. Improves vocabulary to enhance written and oral communication.

BUSO 96A — Business Vocabulary 1.5 Units Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
27 hours lecture
Thorough training in the skills and techniques of English, as applied to business situations, with emphasis on effective paragraphs and memos.

BUSC 1A — Principles of Economics - Macroeconomics 3 Units Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 1A, and successful completion of MATH 71 or MATH 71B or MATH 71X
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.
BUS 1AH — Principles of Economics - Macroeconomics 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program and MATH 71, or MATH 71B, or MATH 71X
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 BUS 1A and BUSC 1A.

BUS 1B — Principles of Economics - Microeconomics 3 Units
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.

BUS 1BH — Principles of Economics - Microeconomics 3 Units
Honors
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 1B and BUSC 1BH.

BUS 17 — Applied Business Statistics 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MATH 71
Statistical reasoning and application of primary statistical techniques used in solving managerial problems. Topics include: collection and interpretation of data, measures of central tendency and dispersion, probability distributions, sampling and estimation, hypothesis testing, analysis of variance, linear regression and correlation and index numbers.

BUS 18 — Business Law 3 Units
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.

BUS 18H — Business Law - Honors 3 Units
Honors
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
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. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSL 18 and BUSL 18H.

BUS 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.

BUS 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.

BUS 20 — Principles of Business 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Acceptance into the Honors Program
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. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 20 and BUSC 20H.

BUS 21 — Principles of International Business 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.

BUS 22 — Principles of Exporting and Importing 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68 or BUSO 5
Acquaints the student with the vocabulary, acronyms and the basic information needed for an understanding of and participating in the exporting and importing of goods and services.
### Course Descriptions

<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 60</td>
<td>Human Relations in Business</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></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 intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.</td>
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<tr>
<td>BUSM 61</td>
<td>Business Organization and Management</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>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>
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<tr>
<td>BUSM 62</td>
<td>Human Resource Management</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>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>
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<tr>
<td>BUSM 66</td>
<td>Small Business Management</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>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 67</td>
<td>Work Experience in Business</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
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<td>(May be taken for 4 units)</td>
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<tr>
<td></td>
<td>75 to 100 hours lab</td>
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<td>Course prerequisite: BUSM 20 (may have been taken previously)</td>
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<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 65</td>
<td>Special Issues in Business</td>
<td>2</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></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>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. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PLGL 30</td>
<td>Introduction to Paralegal/Legal</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>Prerequisite: ENGL 68</td>
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<td>Federal and state legal systems, the relationship of paralegals to attorneys, legal writing and research, investigation of claims, and legal ethics for paralegals.</td>
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<tr>
<td>PLGL 31A</td>
<td>Legal Analysis and Writing</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>Corequisite: PLGL 30 or BUSL 30 (may have been taken previously)</td>
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<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>
<td>PLGL 31B</td>
<td>Advanced Legal Analysis and Writing</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>Corequisite: PLGL 30 and PLGL 31A (may have been taken previously)</td>
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<td>Preparation 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>
<td>PLGL 32A</td>
<td>Civil Procedure Pretrial</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>Corequisite: PLGL 30 (may have been taken previously)</td>
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<td>Analysis of the pretrial procedural steps to litigating a cause of action. Examines the concepts of jurisdiction, venue, parties to the action, summons, default judgments, and pleadings.</td>
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<tr>
<td>PLGL 32B</td>
<td>Civil Procedure-Trial and Post-Trial</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>Corequisite: PLGL 31A</td>
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<td></td>
<td>Preparing for litigation. Includes discovery, preparation of law and motion documents, remedies, summary judgments, motions to dismiss, settlements, and arbitration.</td>
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<tr>
<td>PLGL 33A</td>
<td>Law Office Procedures</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>Prerequisite: PLGL 30</td>
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<td>Examine 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 35A</td>
<td>Law Office Procedures</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>Prerequisite: PLGL 30</td>
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<td>Examine 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 38</td>
<td>Employment and Ethical Issues in Paralegalism</td>
<td>2</td>
<td>Degree Applicable</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Corequisite: PLGL 31A, PLGL 33A, and PLGL 35A (may have been taken previously)</td>
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<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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</tbody>
</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 various forms of 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 insolvency 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 (GREA) 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.
Course Descriptions

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 Units
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
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
Prerequisite: BUSR 50 or employment in the real estate field
Overview of the technical knowledge of the State and Federal laws that govern the practice of mortgage loan brokering 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
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 — Uniform Standards of Professional Appraisal Practice (USPAP) 1 Unit
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
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
Degree Applicable
45 hours lecture
Emphasizes residential appraisal case studies, report writing, statistics, modeling, and finance. Required by Office of Real Estate Appraisers (OREA) for all appraisal licenses. Provides 45 hours toward OREA requirements for state licensing. Includes all topics listed in Appraisal Qualifications Board (AQB) Modules: Residential Report Writing and Case Studies; Statistics; Modeling; and Finance; and Advanced Residential Applications and Case Studies.

BUSR 85 — 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 86 — Escrow Procedures III 3 Units
Degree Applicable
54 hours lecture
Prerequisite: BUSR 81
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 87 — Escrow Procedures IV 3 Units
Degree Applicable
54 hours lecture
Prerequisite: BUSR 84
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 88 — Escrow Procedures V 3 Units
Degree Applicable
54 hours lecture
Prerequisite: BUSR 85
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.
### CHEMISTRY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 10</td>
<td>Chemistry for Allied Health Majors</td>
<td>4 Units</td>
</tr>
<tr>
<td>CHEM 20</td>
<td>Introductory Organic and Biochemistry</td>
<td>5 Units</td>
</tr>
<tr>
<td>CHEM 40</td>
<td>Introduction to General Chemistry</td>
<td>4 Units</td>
</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
<td>5 Units</td>
</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
<td>5 Units</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I - Honors</td>
<td>5 Units</td>
</tr>
<tr>
<td>CHEM 60</td>
<td>Quantitative Chemical Analysis</td>
<td>5 Units</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 10</td>
<td>Chemistry for Allied Health Majors</td>
<td>4 Units</td>
<td>CHEM 40 or satisfactory score on the Chemistry Placement Exam and (MATH 71, 71B or 71X or equivalent)</td>
</tr>
<tr>
<td>CHEM 20</td>
<td>Introductory Organic and Biochemistry</td>
<td>5 Units</td>
<td>CHEM 10 or CHEM 40</td>
</tr>
<tr>
<td>CHEM 40</td>
<td>Introduction to General Chemistry</td>
<td>4 Units</td>
<td>Eligibility for MATH 71, Advisory: Eligibility for ENGL 1A</td>
</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
<td>5 Units</td>
<td>Acceptance into the Honors Program, also (CHEM 40 or satisfactory score on the Chemistry Placement Exam) and (MATH 71, 71B or 71X or equivalent)</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I - Honors</td>
<td>5 Units</td>
<td>Acceptance into the Honors Program, also (CHEM 40 or satisfactory score on the Chemistry Placement Exam) and (MATH 71, 71B or 71X or equivalent)</td>
</tr>
<tr>
<td>CHEM 60</td>
<td>Quantitative Chemical Analysis</td>
<td>5 Units</td>
<td>Prerequisite: CHEM 51</td>
</tr>
</tbody>
</table>

### CHEMICAL TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHMT 1</td>
<td>Introduction to Chemical Laboratory Technology</td>
<td>3 Units</td>
</tr>
<tr>
<td>CHMT 8</td>
<td>Work Experience in Chemical Technology</td>
<td>1 to 2 Units</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHMT 1</td>
<td>Introduction to Chemical Laboratory Technology</td>
<td>3 Units</td>
<td>CHEM 10</td>
</tr>
<tr>
<td>CHMT 8</td>
<td>Work Experience in Chemical Technology</td>
<td>1 to 2 Units</td>
<td>CHEM 10</td>
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<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>CHMT 8</td>
<td>Work Experience in Chemical Technology</td>
<td>1 to 2 Units</td>
<td>CHEM 10</td>
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### 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 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. Students who repeat this course will improve skills through further instruction and practice.

- **CHEMISTRY**
  - **CHEM 10 — Chemistry for Allied Health Majors** 4 Units
    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
    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
    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
    Degree Applicable, CSU, UC
    54 hours lecture
    108 hours lab
    Prerequisite: CHEM 40 or satisfactory score on 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. 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 51 — General Chemistry II** 5 Units
    Degree Applicable, CSU, UC
    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 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. 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 60 — Quantitative Chemical Analysis** 5 Units
  Degree Applicable, CSU, UC
  54 hours lecture
  108 hours lab
  Prerequisite: CHEM 51
  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.
## Course Descriptions

### CHEM 80 — Organic Chemistry
5 Units
54 hours lecture
108 hours lab
Prerequisite: CHEM 80
Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods for organic compounds. To assure that all content material is covered, it is recommended that students complete the entire one-year sequence at one campus prior to transfer.

### CHEM 81 — Organic Chemistry
5 Units
Degree Applicable, CSU, UC
54 hours lecture
108 hours lab
Prerequisite: CHEM 80
Continuation of CHEM 80. Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods. Structure, synthesis and representative reactions of carbohydrates, lipids and proteins.

### CHEM 99 — Special Projects in Chemistry
2 Units
Degree Applicable, CSU
(May be taken four times for credit)
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 class. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

### CHILD DEVELOPMENT

#### CHLD 1 — Child, Family, School and Community
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Child development is presented as the interaction and collaboration between children, parents, family, school and community. Studies of family systems in contemporary society as they impact children and their individual heritage, diverse culture, ability and language. Explores the value of communication, the development of child advocacy skills and the ability to use community resources to empower families and children.

#### CHLD 5 — Principles and Practices in Child Development Programs
3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: CHLD 5 or CHLD 10
Overview of early childhood 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.

#### CHLD 6 — Survey of Child Development Curriculum
3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: CHLD 61
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.

#### CHLD 10 — Child Growth and Development
3 Units
Degree Applicable, CSU, UC
54 hours lecture
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.

#### CHLD 10H — Child Growth and Development - Honors
3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
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.

#### CHLD 50 — Multicultural Education: Anti-Bias Perspective
3 Units
Degree Applicable
54 hours lecture
Advisory: CHLD 1
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.

#### CHLD 51 — Early Literacy in Child Development
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 61
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.

#### CHLD 61 — Language Arts and Art Media for Young Children
3 Units
Degree Applicable
54 hours lecture
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.

#### CHLD 62 — Music and Motor Development for Young Children
3 Units
Degree Applicable
54 hours lecture
Exploration of the role of music and movement in a young child’s sensory motor development. Emphasizes student development in practical activities including making music, movement, singing and musical instruments. Out of class observation at a child development center required. TB test required.
<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>CHLD 63</td>
<td>Creative Sciences and Math for Young Children</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<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>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.</td>
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<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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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>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. Includes universal health precautions, evaluate center/agency policies with licensing requirements, and food program service with guidelines for food handling.</td>
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<td>CHLD 66</td>
<td>Early Childhood Development Observation</td>
<td>2</td>
<td>Degree Applicable</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Prerequisite: CHLD 5 and CHLD 10 or CHLD 10H</td>
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<td>Corequisite: CHLD 66L (may have been taken previously)</td>
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<td>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.</td>
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<tr>
<td>CHLD 66L</td>
<td>Early Childhood Development Observation Laboratory</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Corequisite: CHLD 66</td>
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<td>Provides the student with an understanding of child development through observations in the laboratory school. The holistic approach to child study is emphasized. Students synthesize information which they have recorded and relate it to different areas of the preschool child’s growth and development.</td>
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<tr>
<td>CHLD 67</td>
<td>Early Childhood Development Participation</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: CHLD 6 and CHLD 66</td>
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<td>Corequisite: CHLD 67L</td>
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<td></td>
<td>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.</td>
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<tr>
<td>CHLD 67L</td>
<td>Early Childhood Development Participation Laboratory</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>63 hours lab</td>
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<td></td>
<td>Corequisite: CHLD 67</td>
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<td>Teaching experiences in the preschool children’s classroom related to creating environment, managing program, preparing materials, planning and carrying out activities for individual children and groups of children.</td>
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<tr>
<td>CHLD 68</td>
<td>Children With Special Needs</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>Corequisite: CHLD 10 or CHLD 10H</td>
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<td>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.</td>
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<tr>
<td>CHLD 69</td>
<td>Early Childhood Development Field Work Seminar</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Corequisite: CHLD 67, CHLD 67L</td>
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<td>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.</td>
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<tr>
<td>CHLD 71A</td>
<td>Administration of Child Development Programs</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>Advisory: CHLD 1, CHLD 5, CHLD 6, CHLD 10 or CHLD 10H, or experience as an Administrator of a Children’s Program</td>
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<td>History of the education of children in context of their care and development, laws governing children’s programs in California, and goals of childhood development. The administrator’s job description, program budget, personnel selection and standards, records and reports, and staff policies are included.</td>
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<tr>
<td>CHLD 71B</td>
<td>Management/Marketing/Personnel for ECD Programs</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>Corequisite: CHLD 71A</td>
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<td>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.</td>
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<tr>
<td>CHLD 72</td>
<td>Teacher, Parent, and Child Relationships</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>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.</td>
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<tr>
<td>CHLD 73</td>
<td>Infant/Toddler Care and Development</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></td>
<td>Advisory: CHLD 10 or CHLD 10H</td>
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<td>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.</td>
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<tr>
<td>CHLD 74</td>
<td>Program Planning for the School Age Child</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Advisory: CHLD 10 or CHLD 10H</td>
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<td>Integrates principles of child development related to working with the school-age child. Program planning and legal requirements for school-age programs are emphasized. Explores age-appropriate discipline and conflict resolution. Develops activity planning consistent with school-age content standards. Student assignments will include observations of school-age programs.</td>
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<tr>
<td>CHLD 75</td>
<td>Supervising Adults in Early Childhood Settings</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: CHLD 1 and CHLD 5</td>
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<td>Methods and principles of working with and supervising adults in the early childhood setting. Emphasis is on the role of the experienced children’s teacher who functions as a model and mentor to new teachers as s/he addresses the needs of children, parents and staff.</td>
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**Course Descriptions**

- **CHLD 81 — Current Curriculum Models in Child Development**
  1 Unit
  Degree Applicable
  (May be taken two times for credit)
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Provides students with working knowledge of specific curriculum models appropriate for child development programs. Origins, classroom practices, pros, cons, and evaluation methods discussed. Curriculum model will change with course offering.

- **CHLD 82 — Advocacy in Child Development**
  1 Unit
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Investigates current issues in Child Development; explores process of advocacy on behalf of children.

- **CHLD 83 — Current Issues in Child Development**
  1 Unit
  Degree Applicable
  (May be taken four times for credit)
  (May be taken for option of letter grade or Pass/No Pass)
  18 hours lecture
  Advisory: CHLD 5, CHLD 10 or CHLD 10H
  Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings. Students who repeat this course will improve skills through further instruction and practice.

- **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 10
  Advisory: CHLD 73
  Principles and methods of working with infants who are disabled or at risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.

- **CHLD 86 — Infants And Young Children**
  3 Units
  Degree Applicable
  54 hours lecture
  Prerequisite: CHLD 5
  Advisory: CHLD 73
  Principles and methods of working with infants who are disabled or at risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.

- **CHLD 87 — Developmentally Disabled Infants and Young Children**
  3 Units
  Degree Applicable
  54 hours lecture
  Prerequisite: CHLD 5
  Advisory: CHLD 73
  Principles and methods of working with infants who are disabled or at risk. Emphasis on prenatal prevention, postnatal intervention, and support programs. Course will prepare caregivers of infants at risk for appropriate program planning. TB test and out-of-class observations required.

- **CHLD 88 — Tobacco Use And Prevention**
  1 Unit
  Degree Applicable, CSU
  18 hours lecture
  Provides an overview of tobacco use among children and youth. Focuses on the development, implementation, and evaluation of tobacco prevention programs. Addresses topics such as policy, program development, and evaluation.

- **CHLD 89 — Tobacco Use And Prevention Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides an overview of tobacco use among children and youth. Focuses on the development, implementation, and evaluation of tobacco prevention programs. Addresses topics such as policy, program development, and evaluation.

- **CHLD 90 — Tobacco Use And Prevention Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides an overview of tobacco use among children and youth. Focuses on the development, implementation, and evaluation of tobacco prevention programs. Addresses topics such as policy, program development, and evaluation.

- **CHLD 91 — Early Childhood Development Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides an overview of tobacco use among children and youth. Focuses on the development, implementation, and evaluation of tobacco prevention programs. Addresses topics such as policy, program development, and evaluation.

- **CHLD 92 — Family Child Care**
  3 Units
  Degree Applicable, CSU
  54 hours lecture
  Advisory: CHLD 5
  Provides a foundation in family child care including various child care systems, legal and regulatory standards, cultural and community social services, nutrition, health, safety, and other related field areas.

- **CHLD 93 — Family Child Care Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides practical experience in family child care with the supervision of the fieldwork instructor.

- **CHLD 94 — Family Child Care Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides practical experience in family child care with the supervision of the fieldwork instructor.

- **CHLD 95 — Family Child Care Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides practical experience in family child care with the supervision of the fieldwork instructor.

- **CHLD 96 — Family Child Care Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides practical experience in family child care with the supervision of the fieldwork instructor.

- **CHLD 97 — Family Child Care Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides practical experience in family child care with the supervision of the fieldwork instructor.

- **CHLD 98 — Family Child Care Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides practical experience in family child care with the supervision of the fieldwork instructor.

- **CHLD 99 — Family Child Care Field Work**
  1 Unit
  Degree Applicable, CSU
  Provides practical experience in family child care with the supervision of the fieldwork instructor.

- **CHI 1 — Elementary Chinese**
  4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Intended for students without previous exposure to Chinese. Begins to develop the ability to converse, read, and write in Mandarin Chinese.

- **CHI 2 — Continuing Elementary Chinese**
  4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: CHI 1 or equivalent
  Further develops conversational, reading, and writing skills in Mandarin Chinese with special emphasis on verbs, grammar, and extension of vocabulary.

- **CHI 3 — Intermediate Chinese**
  4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: CHI 2 or equivalent
  Further develops 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.

- **CHI 4 — Continuing Intermediate Chinese**
  4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: CHI 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 basic, and bei structures.

- **GRAP 8 — Fundamentals of Digital Media**
  3 Units
  Degree Applicable
  36 hours lecture
  54 hours lab
  Introductory course for all disciplines interested in learning scientific and technical concepts and tools used to produce digital media content. Includes software such as Adobe Photoshop, Apple iPhoto and iMovie, and computer and other electronic hardware and software necessary to acquire, store, edit, transfer, or output digital media files.

- **GRAP 9 — Digital Color Management**
  3 Units
  Degree Applicable
  36 hours lecture
  54 hours lab
  Digital color management software and hardware skills, techniques and digital workflow practices commonly used with system color device calibration and Apple Aperture, iLife, and Adobe Creative Suite software.

- **GRAP 10 — Photoshop Imagery**
  3 Units
  Degree Applicable
  36 hours lecture
  54 hours lab
  Adobe Photoshop software skills, techniques and digital workflow practices from digital image editing and retouching to the composited imagery commonly created for use in photography, commercial design, printing and publishing, the internet and multimedia authoring production.

- **GRAP 12 — Photoshop Imagery Extended**
  3 Units
  Degree Applicable
  36 hours lecture
  54 hours lab
  Prerequisite: GRAP 10
  Adobe Photoshop Extended software skills and techniques for the creative photorealistic imagery commonly used in photography, commercial design, printing and publishing, the internet and multimedia authoring production.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 15</td>
<td>InDesign Graphics</td>
<td>3</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>36 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Adobe InDesign software skills, techniques and digital workflow practices commonly created for use in essential computer graphics production processes for commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
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<tr>
<td>GRAP 16</td>
<td>Illustrator Graphics</td>
<td>3</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>36 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the Internet, and multimedia authoring production.</td>
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<tr>
<td>GRAP 18</td>
<td>3D Graphics Imagery</td>
<td>3</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>36 hours lecture</td>
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<td>54 hours lab</td>
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<tr>
<td></td>
<td>3D graphics modeling software skills and production techniques from 2D orthographic drawing to the creatively conceived 3D imagery and animated environments commonly created for self-expression, entertainment, commercial design, printing and publishing, the Internet, and multimedia authoring production.</td>
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<tr>
<td>GRAP 20</td>
<td>Multimedia Graphics</td>
<td>3</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>36 hours lecture</td>
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<td>54 hours lab</td>
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<tr>
<td></td>
<td>Multimedia graphics software skills and production techniques for combining text, image, audio, video, animation and scripting media to author multimedia projects commonly created for self-expression, entertainment, commercial design, the Internet, and multimedia production.</td>
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<tr>
<td>GRAP 30</td>
<td>Digital Productions</td>
<td>3</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>36 hours lecture</td>
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<td>54 hours lab</td>
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<tr>
<td></td>
<td>Computer graphics production techniques and practices used in media creation and authoring professional projects commonly created for use in photography, commercial design, printing and publishing, the Internet and multimedia authoring production.</td>
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<tr>
<td>GRAP 40</td>
<td>Computer Graphics Special Topics</td>
<td>2</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></td>
<td>54 hours lab</td>
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<td></td>
<td>Special topics expanding the essential knowledge, skills, production techniques and proficiency of Computer Graphics commonly created for self-expression, entertainment, commercial design, the Internet, and multimedia production.</td>
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<tr>
<td>CISB 15</td>
<td>Microcomputer Applications</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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<td></td>
<td>54 hours lab</td>
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<tr>
<td></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>
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<tr>
<td>CISB 16</td>
<td>Macintosh Applications</td>
<td>2</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>27 hours lecture</td>
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<td>27 hours lab</td>
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<td></td>
<td>Formerly COMP 10.</td>
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<td></td>
<td>Apple’s Macintosh computer, Mac OS X operating system, and related word processing, database, spreadsheet, and multimedia applications.</td>
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<tr>
<td>CISB 21</td>
<td>Microsoft Excel</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>Spreadsheet concepts using Microsoft Excel including formatting, formulas and functions, charts, linked worksheets, pivot tables, macros, and Visual Basic for Applications (VBA) code.</td>
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<tr>
<td>CISB 31</td>
<td>Microsoft Word</td>
<td>3</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>54 hours lecture</td>
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<td></td>
<td>Formerly COMP 20.</td>
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<td></td>
<td>Using Microsoft Word and its editing, formatting, and language tools to create, revise and format various business and report documents. Includes creating flyers, newsletters, and other publication documents using advanced formatting techniques and tools.</td>
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<tr>
<td>CISB 51</td>
<td>Microsoft PowerPoint</td>
<td>3</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>54 hours lecture</td>
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<td>Formerly COMP 50.</td>
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<td></td>
<td>Using PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies</td>
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<tr>
<td>CISB 61</td>
<td>Desktop Publishing Software</td>
<td>3</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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<tr>
<td></td>
<td>Formerly COMP 60.</td>
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<td></td>
<td>Using desktop publishing software to integrate text and various graphic objects, design, edit, and produce a variety of high-quality business publications.</td>
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</tbody>
</table>
### COURSE DESCRIPTIONS

#### COMPUTER INFORMATION SYSTEMS: DATABASE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISD 11</td>
<td>Database Management - Microsoft Access</td>
<td>4</td>
<td>54 hours lecture and lab. Advisory: COMP 12 or CISB 11 and CISB 15. Design, creation, and management of relational databases using Microsoft Access or 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 14</td>
<td>Advanced Database Management - Microsoft Access</td>
<td>4</td>
<td>54 hours lecture and lab. Advisory: CISD 11. 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>CISD 21</td>
<td>Database Management - Microsoft SQL Server</td>
<td>4</td>
<td>54 hours lecture and lab. Advisory: CISB 11 or CISB 15. Structured query language (SQL) and transact-SQL for Microsoft SQL Server users. Topics include creating database objects, retrieving and updating data, writing scripts, developing stored procedures/functions, and creating cursors.</td>
</tr>
<tr>
<td>CISD 31</td>
<td>Database Management - Oracle</td>
<td>4</td>
<td>54 hours lecture and lab. Advisory: CISB 11. Oracle 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.</td>
</tr>
<tr>
<td>CISD 40</td>
<td>Database Design</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>CISD 32</td>
<td>Oracle Forms and Reports</td>
<td>3</td>
<td>54 hours lecture. Advisory: CISD 31. Design, creation and implementation of interactive Oracle single forms with multiple canvases, multiple forms and reports using Procedural Language/Structured Query Language (PL/SQL) triggers, the Object Navigator, and Form and Report Builder. Business reports and interactive forms are created using single and multiple tables.</td>
</tr>
</tbody>
</table>

#### COMPUTER INFORMATION SYSTEMS: MANAGEMENT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISI 11</td>
<td>Computer Keyboarding</td>
<td>3</td>
<td>54 hours lecture. Formerly COMP 1. Develops alpha and numeric keyboarding skills on a personal computer at a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit. Includes keyboarding of letters, tables, and manuscripts.</td>
</tr>
<tr>
<td>CISI 21</td>
<td>Data Entry</td>
<td>3</td>
<td>54 hours lecture. Advisory: CISB 11 or CISB 11A. Formerly COMP 18. Data entry using a microcomputer. Includes 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.</td>
</tr>
<tr>
<td>CISM 11</td>
<td>Systems Analysis and Design</td>
<td>3.5</td>
<td>54 hours lecture and 27 hours lab. Advisory: CISB 15 or COMP 12 and CISB 11. Formerly COMP 20. Develops basic understanding of database and 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.</td>
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</tbody>
</table>
### COMPUTER INFORMATION SYSTEMS: NETWORKING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 11</td>
<td>Telecommunications Networking</td>
<td>4</td>
<td>Degree Applicable, CSU</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: CIS 11</td>
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<tr>
<td></td>
<td>Computer Network Administration and Security Management (CNASM) core. Cisco Certified Network Associate (CCNA) 1st year certification. Concepts and designs in telecommunications and networking. Network standards, TCP/IP v4 and v6, Open Systems Interconnection (OSI), network protocols, transmission media, hardware architecture, local area network, wide area network, remote connectivity, network operating system (Microsoft Windows and Linux), troubleshooting, maintaining, upgrading network, network and wireless security, vulnerability, and network sniffing.</td>
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<tr>
<td>CISN 21</td>
<td>Windows Operating System</td>
<td>4</td>
<td>Degree Applicable, CSU</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: CIS 11 or (CISB 15 or COMP 12)</td>
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<td>Employing a Windows operating system to manage disks, files and applications. Install, analyze and debug Windows operating system environment problems. Secure a Windows environment. Configure advance features of a Windows operating system.</td>
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<tr>
<td>CISN 24</td>
<td>Window Server Network and Security Administration</td>
<td>4</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>54 hours lab</td>
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<td>Advisory: CIS 11</td>
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<tr>
<td></td>
<td>Computer Network Administration and Security Management (CNASM) core. Microsoft Certified Systems Administrator (MCSE) topics, Active Directory security and policy management, Hyper-V virtual server installation, Dynamic Host Configuration Protocol (DHCP), Domain Name Service (DNS), file system security, logon script, network printing, web and terminal server, Network Address Translation (NAT), IPsec and secure Virtual Private Network (VPN).</td>
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<tr>
<td>CISN 31</td>
<td>Linux Operating System</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
</tr>
<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: CIS 11</td>
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<td></td>
<td>Concepts and skills in planning and installing Linux Operating System and its graphical interface; using Linux Shells and system administration commands; managing user accounts; installing hardware and software; creating scripts to automate system administration; and maintaining file systems and system resources.</td>
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</table>

### COMPUTER INFORMATION SYSTEMS: PROGRAMMING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>CISP 11</td>
<td>Programming in Java</td>
<td>4</td>
<td>Degree Applicable, CSU</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></td>
<td>Advisory: CISB 11 or CISB 15 or computer work experience</td>
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<td></td>
<td>Programming using Java as the programming language. Design and develop object-oriented programs and Web-based applications; documentation and debugging techniques; user-interface, objects, properties, methods, and events; elementary control structures, lists, arrays, streams and serialization. Provides students with hands-on experience.</td>
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<tr>
<td>CISP 14</td>
<td>Advanced Visual Basic Programming</td>
<td>4</td>
<td>Degree Applicable, CSU</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>Advanced computer programming concepts using Visual Basic.NET as the programming language. Designing, coding, testing, and implementing object-oriented multiple tier programs; program design using Unified Modeling Language; using data adapters, object linking and embedding (OLE) objects; dynamic link libraries (DLLs); incorporating XML, Web forms, and Web services; 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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</tbody>
</table>
**Course Descriptions**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CISP 11</td>
<td>Practical Computer Security</td>
<td>2</td>
<td>Provides awareness for all computer users to protect user accounts and computer systems from attacks. Projects illustrate security software and hardware configuration.</td>
</tr>
<tr>
<td>CISP 15</td>
<td>Operating Systems Security</td>
<td>4</td>
<td>Design secure networks by implementing and configuring firewalls, DMZ, and VPNs for enterprise, medium, and small businesses. Includes changing, installing, configuring, maintaining, troubleshooting, and monitoring firewall solutions by Cisco and other leading firewall manufacturers.</td>
</tr>
<tr>
<td>CISS 23</td>
<td>Network Analysis, Intrusion Detection/Prevention Systems</td>
<td>4</td>
<td>Network vulnerabilities management in different operating systems (Windows, Unix etc.)</td>
</tr>
<tr>
<td>CISS 25</td>
<td>Network Security and Firewalls</td>
<td>4</td>
<td>Design secure networks by implementing and configuring firewalls, DMZ, and VPNs for enterprise, medium, and small businesses. Includes designing, installing, configuring, maintaining, troubleshooting, and monitoring firewall solutions by Cisco and other leading firewall manufacturers.</td>
</tr>
</tbody>
</table>

**CISW 11 — Internet Technologies**

4 Units

54 hours lecture
54 hours lab
Advisory: CISB 11 or CIS 13 or CISB 15

Integrates knowledge learned from Internet technology courses and prepares students for the Certified Information Systems Security Professional (CISSP). Includes legal, business, and ethical topics.

**WEB APPLICATIONS**

<table>
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</thead>
<tbody>
<tr>
<td>CISW 11</td>
<td>Internet Technologies</td>
<td>4</td>
<td>Design secure networks by implementing and configuring firewalls, DMZ, and VPNs for enterprise, medium, and small businesses. Includes designing, installing, configuring, maintaining, troubleshooting, and monitoring firewall solutions by Cisco and other leading firewall manufacturers.</td>
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**COMPUTER INFORMATION SYSTEMS: SECURITY**

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<td>Network Analysis, Intrusion Detection/Prevention Systems</td>
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<td>Network vulnerabilities management in different operating systems (Windows, Unix etc.)</td>
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**Advanced Programming in C#**

May be taken for option of letter grade or Pass/No Pass

Pre-requisite: CISP 41 or industry experience in C#

Advanced programming concepts using C#. Designing, coding, testing and implementing object-oriented multi-tier applications; displaying, searching, and updating SQL client databases with both Windows Forms and Web Forms; creating user controls, Web Services, and container classes; creating help files, deploying applications, and developing mobile applications.

**Principles of Object-Oriented Design**

27 hours lecture
27 hours lab
Advisory: CISP 11 or CISP 21 or CISP 31

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.

**Network Vulnerabilities and Countermeasures**

54 hours lecture
54 hours lab
Advisory: CISP 11, CISP 23

Advanced aspects of operating systems security from how attackers operate to how viruses strike. Covers strengthening operating systems and repelling attacks, and applying security concepts and techniques to different operating systems (Windows, Unix etc.).

**Network Security and Firewalls**

May be taken for option of letter grade or Pass/No Pass

54 hours lab
54 hours lecture

Design secure networks by implementing and configuring firewalls, DMZ, and VPNs for enterprise, medium, and small businesses. Includes designing, installing, configuring, maintaining, troubleshooting, and monitoring firewall solutions by Cisco and other leading firewall manufacturers.

**Defending Computer Systems**

May be taken four times for credit

54 hours lab
54 hours lecture

Team-oriented practice installing and setting-up security in computer and network systems. Includes hands-on activities defending, responding, mitigating, and analyzing security attacks along with preparing written reports documenting how the system was defended.

**CNASM Service Learning**

1 Unit

54 hours lab
54 hours lecture

Integrates knowledge learned from Computer Network Administration and Security Management courses through lab activities and community services.
### Course Descriptions

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<tbody>
<tr>
<td>CISW 15</td>
<td>Web Site Development</td>
<td>4</td>
<td>Degree Applicable, CSU (May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td>CISW 21</td>
<td>Secure Web Programming with ASP.NET</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>CISW 24</td>
<td>Secure Server Side Web Programming</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISW 31</td>
<td>Secure Web Servers</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISW 41</td>
<td>XML Secure Programming</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISW 49</td>
<td>Service Oriented Architecture Concepts</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>CISW 51</td>
<td>Fundamentals of Computer Science</td>
<td>3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CSCI 110</td>
<td>Java Language and Object Oriented Programming</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CSCI 130</td>
<td>Assembly Language/Machine Architecture</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CSCI 130L</td>
<td>Assembly Language Laboratory</td>
<td>1</td>
<td>Degree Applicable, CSU, UC (May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>CSCI 140</td>
<td>C++ Language and Object Development</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CSCI 145</td>
<td>Java Language and Object Oriented Programming</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>CSCI 150</td>
<td>Assembly Language/Machine Architecture</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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**Computer Science**

- **Introduction to Programming Languages**
  - **CSCI 110** - Java Language and Object Oriented Programming
  - **CSCI 145** - Java Language and Object Oriented Programming

- **Secure Web Programming**
  - **CISW 21** - Secure Web Programming with ASP.NET
  - **CISW 24** - Secure Server Side Web Programming

- **Web Site Development**
  - **CISW 15** - Web Site Development

- **Web Site Development**
  - **CISW 21** - Secure Web Programming with ASP.NET

- **Secure Programming**
  - **CISW 41** - XML Secure Programming

- **Service Oriented Architecture**
  - **CISW 49** - Service Oriented Architecture Concepts

- **Fundamentals of Computer Science**
  - **CSCI 110** - Java Language and Object Oriented Programming

- **Assembly Language**
  - **CSCI 130** - Assembly Language/Machine Architecture
  - **CSCI 130L** - Assembly Language Laboratory

- **Data Structures**
  - **CSCI 140** - C++ Language and Object Development

- **Unix Operating System**
  - **CSCI 170** - Introduction to Unix Operating System
# Course Descriptions

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<tr>
<td>CSCI 190</td>
<td>Discrete Mathematics Applied to Computer Science</td>
<td>4 Units</td>
<td>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 trees, and counting techniques.</td>
</tr>
<tr>
<td>CSCI 210</td>
<td>Applied Logic for Computers</td>
<td>3 Units</td>
<td>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.</td>
</tr>
<tr>
<td>CSCI 220</td>
<td>Data Structures I</td>
<td>3 Units</td>
<td>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.</td>
</tr>
<tr>
<td>CSCI 220L</td>
<td>Data Structures I Laboratory</td>
<td>1 Unit</td>
<td>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.</td>
</tr>
<tr>
<td>CSCI 230</td>
<td>Data Structures II</td>
<td>3 Units</td>
<td>Basic searching/counting algorithms, hashing, graphs, memory/disk management, B-trees, advanced tree structures and analysis.</td>
</tr>
<tr>
<td>CSCI 230L</td>
<td>Data Structures II Laboratory</td>
<td>1 Unit</td>
<td>An independent study program designed to complement the lecture material presented in CSCI 230, Data Structures II. Hands-on computer work will include problem solving in searching, sorting, and graphs.</td>
</tr>
<tr>
<td>CNET 50</td>
<td>PC Servicing</td>
<td>4 Units</td>
<td>Current operating systems required for A+ and Network+ Certification. Topics include: identification of major components, installation, configuration, upgrading and troubleshooting.</td>
</tr>
<tr>
<td>CNET 52</td>
<td>PC Operating Systems</td>
<td>4 Units</td>
<td>Current operating systems required for A+ and Network+ Certification. Topics include: identification of major components, installation, configuration, upgrading and troubleshooting.</td>
</tr>
<tr>
<td>CNET 54</td>
<td>PC Troubleshooting</td>
<td>4 Units</td>
<td>Advanced microcomputer servicing. Includes: isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.</td>
</tr>
<tr>
<td>CNET 56</td>
<td>Server Systems</td>
<td>3 Units</td>
<td>Server installation, configuration, and management. Includes hardware and software components, virtual server configurations, troubleshooting techniques using flow charts and diagnostic tools, and disaster recovery concepts. Emphasis on hardware components. Covers the core material needed for the Server+ Certification.</td>
</tr>
<tr>
<td>CNET 60</td>
<td>A+ Certification Preparation</td>
<td>2 Units</td>
<td>Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the A+ Essentials and A+ Practical Application test modules will be stressed through both lecture review and test simulation software.</td>
</tr>
<tr>
<td>CNET 62</td>
<td>Network+ Certification Preparation</td>
<td>2 Units</td>
<td>Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Emphasis on 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 present practices and the criminal justice and correctional processes.</td>
</tr>
<tr>
<td>CNET 64</td>
<td>Server + Certification Preparation</td>
<td>2 Units</td>
<td>Prepares the student and/or A+ certified technician for the CompTIA Server+ certification examination. Emphasis on 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 present practices and the criminal justice and correctional processes.</td>
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<tr>
<td>CNET 66</td>
<td>Security + Certification Preparation</td>
<td>2 Units</td>
<td>Prepares the student and/or A+ certified technician for the CompTIA Security+ certification examination. Emphasis on 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 present practices and the criminal justice and correctional processes.</td>
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## Computer and Networking Technology

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<td>Server installation, configuration, and management. Includes hardware and software components, virtual server configurations, troubleshooting techniques using flow charts and diagnostic tools, and disaster recovery concepts. Emphasis on hardware components. Covers the core material needed for the Server+ Certification.</td>
</tr>
<tr>
<td>CNET 60</td>
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<td>2 Units</td>
<td>Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the A+ Essentials and A+ Practical Application test modules will be stressed through both lecture review and test simulation software.</td>
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<tr>
<td>CNET 62</td>
<td>Network+ Certification Preparation</td>
<td>2 Units</td>
<td>Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Emphasis on 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 present practices and the criminal justice and correctional processes.</td>
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### COURSE DESCRIPTIONS

**CORS 15 — Control and Supervision of the Offender**  3 Units  
Degree Applicable  
54 hours lecture  
Examine methods of controlling and supervising inmates. Emphasizes California's methods in rapidly-expanding institutions.

**CORS 20 — Correctional Law**  3 Units  
Degree Applicable  
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  
Degree Applicable  
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  
Degree Applicable  
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  
Degree Applicable  
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  
Degree Applicable  
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  
Degree Applicable  
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.

### COUNSELING

**COUN 1 — Introduction to College**  1 Unit  
Degree Applicable, CSU  
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  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
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  
Degree Applicable, CSU  
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  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
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 99A — Special Projects in Counseling**  .5 to 2 Units  
Degree Applicable, CSU  
(May be taken four times for credit)  
47 to 119 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, various departments from time to time offer Special Projects courses. This course will focus on establishing career and educational goals for students. 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 ensure that proficiencies are enhanced. A field trip may be required.

### DANCE: ACTIVITY

**DNCE 1 — Ballet Fundamentals**  .5 to 2 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 54 hours lab  
Fundamentals of ballet dance styles and an exploration of composition in the ballet dance form. Students who repeat this course will improve proficiency through continued instruction and practice.

**DNCE 2A — Ballet I**  .5 to 1 Unit  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
36 to 108 hours lab  
Basic vocabulary, technique, and movement combinations for ballet. Students who repeat this course will improve proficiency through continued instruction and practice.
Course Descriptions

- **DNCE 12A — Modern I**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - 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**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - Intermediate technique and movement combinations for modern dance. Students who repeat this course will improve skills through further instruction and practice.

- **DNCE 13 — Modern Performance**
  - .5 to 2 Units
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 108 hours lab
  - Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.

- **DNCE 14A — Jazz I**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - 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**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - 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**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - 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 16 — Tap Performance**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - Introduces the experienced dancer to the performance aspect of tap 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**
  - .5 to 2 Units
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - 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**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - Introduces the experienced tap dancer to the performance aspect of tap dance. Students who repeat this course will improve skills through further instruction and practice.

- **DNCE 18B — Tap II**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - Intermediate technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.

- **DNCE 19 — Tap Performance**
  - .5 to 1 Unit
  - Degree Applicable, CSU, UC
  - (May be taken for option of letter grade or Pass/No Pass)
  - 36 to 54 hours lab
  - Introduces the experienced dancer to the performance aspects of tap by providing advanced techniques leading to the performance of compositions. 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)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Designed for the experienced dancer to work in a rehearsal environment and to be a participant in the beginning elements of concert production. 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 for option of letter grade or Pass/No Pass)
54 to 108 hours lab
Designed for the experienced dancer to apply previously learned choreographic skill, to conduct stage rehearsals and learn costuming techniques. 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 for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Provides an 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 for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Provides an 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 for option of letter grade or Pass/No Pass)
36 to 54 hours lab
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 31 — Classical Dance .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 54 hours lab
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)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Provides the intermediate to advanced jazz dancer 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)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
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)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Prerequisite: Admission by audition
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)
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition
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.

### DNCE 39A — Alignment and Correctives I .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 lab
Advisory: DNCE 39A
Based on exercises and concepts developed by Joseph Pilates. Includes basic mat work, floor, special conditioning exercises and body awareness resulting in improved alignment, strength, flexibility, control, coordination and breathing. The mat work leads to apparatus work (on the professional reformer) emphasizing stretch, strength and trunk stability and alignment. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 39B — Alignment and Correctives II .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Advisory: DNCE 39A
Based on exercises and concepts developed by Joseph Pilates. Includes intermediate and advanced mat work. Focus will be primarily on apparatus work (on the professional reformer) developing in improved body alignment, strength, flexibility and control. Students who repeat this course will improve skills through further instruction and practice.

### DNCE 40 — Conditioning Through Dance .5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
Improves fitness through the coordination of dance exercises. Focuses on strength, flexibility and range of motion. Designed for the non-dancer. However, balance and coordination will benefit dancer and non-dancer alike. Students who repeat this course will improve skills through further instruction and practice.

### DN-T 18 — Introduction to Dance 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
A survey of the profession of dance and its various art forms through lecture, discussion, demonstration, and participation. Includes multicultural dance interpretations.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN-T 20</td>
<td>History and Appreciation of Dance</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
<td>Advisory: Eligibility for ENGL 68</td>
</tr>
<tr>
<td></td>
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<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>
</tr>
<tr>
<td>DN-T 27</td>
<td>Theory and Principles of Pilates</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
<td>Prerequisite: DNCE 39A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Teaching skills for the Pilates method of physical and mental conditioning. Concepts and principles as applied to the mat and apparatus repertoire.</td>
</tr>
<tr>
<td>DN-T 28</td>
<td>Functional Anatomy for Pilates</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lecture</td>
<td>Functional human anatomy as applied to the Pilates method of conditioning.</td>
</tr>
<tr>
<td>DN-T 29</td>
<td>Teaching Pilates Mat</td>
<td>1.5 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 hours lecture</td>
<td>Prerequisite: DN-T 27 (may have been taken previously)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lab</td>
<td>Learning to teach the Pilates mat exercises and principles. Includes basic, intermediate and advanced levels focusing on pedagogy and the development of correct neuromuscular patterning.</td>
</tr>
<tr>
<td>DN-T 30</td>
<td>Teaching Pilates Reformer Repertoire</td>
<td>1.5 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 hours lecture</td>
<td>Prerequisite: DN-T 29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lab</td>
<td>Learning to teach the Pilates Reformer exercises and principles. All levels are covered with a focus on the development of correct neuromuscular patterning.</td>
</tr>
<tr>
<td>DN-T 31</td>
<td>Pilates Teaching-Mat and Reformer</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 hours lecture</td>
<td>Prerequisite: DN-T 28 and DN-T 29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>108 hours lab</td>
<td>Preparing students to teach Pilates in a variety of settings and situations. Teaching reinforces knowledge and understanding of the Pilates exercises. Includes lecture, observation, self-integration, assistant teaching, one-on-one teaching and content. Off-campus observations may be required.</td>
</tr>
<tr>
<td>DN-T 32</td>
<td>Teaching Pilates Cadillac and Wunda Chair Repertoire</td>
<td>1.5 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 hours lecture</td>
<td>Prerequisite: DN-T 27 and DN-T 29 and DN-T 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lab</td>
<td>Learning to teach the Pilates repertoire of exercises on the Cadillac and Wunda Chair. All levels are covered with a focus on the development of correct neuromuscular patterning.</td>
</tr>
<tr>
<td>DN-T 33</td>
<td>Teaching Pilates Ped-a-Pul, Barrels and Auxiliary Equipment Repertoire</td>
<td>1.5 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 hours lecture</td>
<td>Prerequisite: DN-T 30 and DN-T 32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lab</td>
<td>Learning to teach Pilates exercises on the following apparatus: Ped-a-Pul, Ladder Barrel, Step Barrel, Arc Barrel, Magic Circle, C-cushion and props. All levels are covered with a focus on the development of correct neuromuscular patterning.</td>
</tr>
<tr>
<td>DN-T 34</td>
<td>Pilates Teaching-Cadillac, Wunda Chair and Auxiliary Equipment</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 hours lecture</td>
<td>Prerequisites: DNCE 2B or DNCE 12B or DNCE 14B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 hours lab</td>
<td>The application of pedagogical methods in Dance. Explores teaching strategies, imagery, motivational techniques, music for class instruction, and injury prevention. Focus is on the genres of Ballet, Jazz and Modern Dance. Course will involve on-campus and off-campus dance teaching observations.</td>
</tr>
</tbody>
</table>

### DISABLED STUDENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSPS 10</td>
<td>College Transition Strategies for Students with Disabilities</td>
<td>3 Units</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Advisory: Eligibility for READ 80</td>
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<tr>
<td></td>
<td></td>
<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>
</tr>
<tr>
<td>DSPS 12</td>
<td>Career Exploration and Planning for Students with Disabilities</td>
<td>3 Units</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Advisory: Eligibility for ENGL 67 and READ 80</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Designed for students with disabilities.</td>
</tr>
<tr>
<td>DSPS 15</td>
<td>Personalized Career Exploration for Students with Disabilities</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td></td>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
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<td></td>
<td></td>
<td>Advisory: Eligibility for READ 80</td>
</tr>
<tr>
<td></td>
<td></td>
<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>
</tr>
<tr>
<td>DSPS 16</td>
<td>Educational and Career Options for Students with Disabilities</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 hours lecture</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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<tr>
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<td></td>
<td>Students will identify interests, personality styles, and skills. Educational and functional limitations, as well as reasonable accommodations will be explored. Designed for students with disabilities.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Degree/Applicability</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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<td></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></td>
<td>54 hours lecture</td>
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<td></td>
<td>Improve reading and spelling skills for multi-syllabic words. Includes</td>
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<td></td>
<td>sounding out letters, oral movements, and common “rules” for reading</td>
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<tr>
<td></td>
<td>and spelling words. Designed for students with learning disabilities. Students</td>
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<tr>
<td></td>
<td>who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>DSPS 30</td>
<td>Academic Success Strategies for Students with Disabilities</td>
<td>1</td>
<td>Not Degree Applicable</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 Pass/No Pass only)</td>
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<tr>
<td></td>
<td>54 hours lab</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</td>
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<tr>
<td></td>
<td>emphasis will be on the effects of and strategies for auditory processing,</td>
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<tr>
<td></td>
<td>language expression, memory, fluid reasoning and performance speed. Secondary</td>
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<td></td>
<td>emphasis will be on strategies to improve subject-specific performance.</td>
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<td></td>
<td>Students who repeat this course will improve skills through further</td>
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<td></td>
<td>instruction and practice.</td>
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<tr>
<td>DSPS 31</td>
<td>Memory Strategies for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></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></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</td>
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<tr>
<td></td>
<td>academic class for application of strategies. Principles of the memory process</td>
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<td></td>
<td>as it applies to academic coursework. Focus on understanding the memory</td>
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<td></td>
<td>process, improving specific memory components, identifying key concepts to</td>
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<td></td>
<td>memorize, and the independent application of memory strategies to students’</td>
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<td></td>
<td>other academic courses. Students who repeat this course will improve skills</td>
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<td></td>
<td>through further instruction and practice.</td>
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<tr>
<td>DSPS 32</td>
<td>Technology for Students with Learning Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</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 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: Eligibility for ENGL 67 or AMLA 42W and READ 80 or AMLA 32R.</td>
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<tr>
<td></td>
<td>Concurrent enrollment in an academic class that requires reading and writing.</td>
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<tr>
<td></td>
<td>Students with Learning Disabilities can improve their reading comprehension</td>
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<tr>
<td></td>
<td>and written expression as applied to assignments in academic classes through</td>
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<tr>
<td></td>
<td>the use of technology. A variety of strategies using technology will be</td>
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<td></td>
<td>introduced to students that will aid them in understanding and learning</td>
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<td></td>
<td>reading assignments and in expressing their ideas in written assignments.</td>
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<td></td>
<td>They will select several strategies for more in-depth use and will apply</td>
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<td></td>
<td>them functionally in academic classes. Concurrent enrollment in an academic</td>
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</tr>
<tr>
<td></td>
<td>class that requires reading and writing is advised.</td>
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</tr>
<tr>
<td>DSPS 33</td>
<td>Strategies for Success in Math for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Advisory: Concurrent enrollment in MATH 50 to MATH 130 Strategies for students</td>
<td></td>
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<tr>
<td></td>
<td>currently in math courses for academic success in relationship to disabilities.</td>
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<tr>
<td></td>
<td>Emphasis on effects of and strategies for processing, language expression,</td>
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<tr>
<td></td>
<td>memory, reasoning, and processing speed as they relate to math. Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>who repeat this course will improve skills through further instruction and</td>
<td></td>
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<tr>
<td></td>
<td>practice.</td>
<td></td>
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</tr>
<tr>
<td>DSPS 34</td>
<td>Writing Strategies for Students with Disabilities</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Strategies for success in writing for students with disabilities concurrently</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>enrolled in ENGL 67, 68, 1A, 1B, and 1C classes. These strategies are</td>
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<tr>
<td></td>
<td>applied to their English writing assignments by supporting the student?ts</td>
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<tr>
<td></td>
<td>strengths and compensating for their weaknesses in writing.</td>
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</tr>
</tbody>
</table>

### EDUCATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree/Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 10</td>
<td>Introduction to Education</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Introduction to the field of education for students interested in teaching</td>
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<tr>
<td></td>
<td>at the elementary or secondary level. Principles and issues are explored</td>
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<tr>
<td></td>
<td>including history, philosophy, politics of education, needs of learners,</td>
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<tr>
<td></td>
<td>and educational specialization. Course includes guidance in the selection</td>
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<tr>
<td></td>
<td>of a future area of specialization. K-12 classroom observations required.</td>
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</tbody>
</table>

### ELECTRONICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree/Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 10</td>
<td>Introduction to Mechatronics</td>
<td>2</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lab</td>
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</tr>
<tr>
<td></td>
<td>An introduction to the field of mechatronics, a combination of</td>
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<tr>
<td></td>
<td>conventional electronic technology with mechanical and computer</td>
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<tr>
<td></td>
<td>technology. Special emphasis is on robotics. Hands-on activities include</td>
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<tr>
<td></td>
<td>the building of a robot.</td>
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</tr>
<tr>
<td>ELEC 11</td>
<td>Technical Applications in Microcomputers</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lab</td>
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</tr>
<tr>
<td></td>
<td>Use of the personal computer (PC) in electronics for technically related</td>
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</tr>
<tr>
<td></td>
<td>applications. Includes word processing, spreadsheets, database, computer</td>
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<tr>
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<td>presentation methods, e-mail, and job searches.</td>
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</tr>
<tr>
<td>ELEC 12</td>
<td>Computer Simulation and Troubleshooting</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: ELEC 51, ELEC 56 taken prior</td>
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<tr>
<td></td>
<td>Use of the personal computer for simulation and troubleshooting of</td>
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<tr>
<td></td>
<td>both analog and digital electronic circuits. Circuit analysis, value</td>
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<tr>
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<td>substitution, and fault diagnostics will be done with the emphasis on</td>
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<td></td>
<td>“Electronics Workbench/Multisim” software.</td>
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<tr>
<td>ELEC 50</td>
<td>Electronic Circuits (DC)</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: Eligibility for Math 51; ELEC 61 taken concurrently</td>
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<tr>
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<td>Direct Current (DC) electrical circuits and their applications. Covers DC</td>
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<td></td>
<td>sources, analysis, test equipment, measurements, and troubleshooting of</td>
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<td></td>
<td>resistive devices and other basic components. Includes Ohm’s Law, Kirchhoff’s</td>
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<td></td>
<td>law, and network theorems. (Students seeking a survey course in electronics</td>
<td></td>
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<tr>
<td></td>
<td>should take ELEC 10, Introduction to Mechatronics, rather than ELEC 50 or 50B.)</td>
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</tr>
</tbody>
</table>
### Course Descriptions

#### ELEC 50B — Electronic Circuits (AC) 4 Units
- Degree Applicable, CSU
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 50A taken prior
- Alternating Current (AC) electrical circuits and their applications. Covers AC sources, analysis (using complex numbers), test equipment, measurements, and troubleshooting of basic circuits with capacitors, inductors, and resistors. Includes impedance, resonance, filters, and detectors.

#### ELEC 51 — Electronic Devices 4 Units
- Degree Applicable
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 50B taken prior
- Solid-state devices and circuits, including BJT and FET transistors, rectifier diodes, op-amps, voltage regulators, thyristors, oscillators, timers, and their applications. Emphasizes configurations, classes, load lines, characteristics curves, gain, troubleshooting, measurements, and frequency response.

#### ELEC 53 — Communications Circuits 4 Units
- Degree Applicable
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 50B taken prior
- Analog and digital communications circuits. Emphasizes analog and digital modulation principles, fiber optics, multiplexing, and telecommunications circuits.

#### ELEC 54A — Industrial Electronics 4 Units
- Degree Applicable, CSU
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 51 taken prior
- Industrial electronic components and basic control circuits. Includes time delay solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and contactors.

#### ELEC 54B — Industrial Electronic Systems 3 Units
- Degree Applicable, CSU
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 54A taken prior
- Expands on circuit theory and demonstrates systems application of industrial electronics including robotics, industrial production and processes, automation, and programmable and motor controllers. Emphasis is on programmable logic controllers (PLCs).

#### ELEC 55 — Microwave Communications 4 Units
- Degree Applicable
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 53 taken prior
- Microwave components and circuits and their applications with emphasis on satellite technology, including radar, GPS, and others. Stresses Gunn diode oscillators, transmission lines, waveguides, Smith Charts, components, amplification, frequency analysis, and measurement techniques.

#### ELEC 56 — Digital Electronics 4 Units
- Degree Applicable
- 54 hours lecture
- 54 hours lab
- 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.

#### ELEC 60 — Electronic Assemblies Recertification 1 Unit
- Degree Applicable
- 36 hours lecture
- 54 hours lab
- Assembly and fabrication techniques in basic soldering, de-soldering, and surface mount technology (SMT). Construction of coaxial, twisted pair (Ethernet) cabling and connectors. Includes printed circuit board (PCB) layout and design.

#### ELEC 61 — Electronic Assembly and Fabrication 3 Units
- Degree Applicable
- 54 hours lecture
- 54 hours lab
- Prepares the technician as an Application Specialist for the IPC-7711/IPC-7721 Rework and Repair of Electronic Assemblies certification. 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.

#### ELEC 62 — Advanced Surface Mount Assembly and Rework 2 Units
- Degree Applicable
- (May be taken two times for credit)
- 18 hours lecture
- 54 hours lab
- Advisory: ELEC 61
- 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 63 — Electronic Assemblies Recertification 1 Unit
- Degree Applicable
- 9 hours lecture
- 27 hours lab
- Prerequisite: ELEC 62
- Prepares the technician as an Application Specialist for the IPC 7711/IPC 7721 Rework and Repair of Electronic Assemblies certification. (Note: Industry requires recertification every two years.)

#### ELEC 64 — Electrical Code-Residential 3 Units
- Not Degree Applicable
- 54 hours lecture
- Advisory: ELEC 54B taken prior
- Introduction to the National Electrical Code requirements for residential wiring. Includes interpretation and review of electrical wiring diagrams, material use, installation methods, and calculation of electrical load to size feeders and conductors. Prepares for the California State Contractors C-10 Electrician license exam.

#### ELEC 66 — Electronic Code-Commercial 3 Units
- Not Degree Applicable
- 54 hours lecture
- Advisory: ELEC 54B taken prior
- Microcontroller systems and programming methods; programmable logic devices (PLDs); serial communications; conversion of signals from analog to digital formats and the converse. Industry applications, interfacing, and troubleshooting.

#### ELEC 67 — Radio Telephone Communications 3 Units
- Not Degree Applicable
- 54 hours lecture
- Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
- Prepares qualified electronic technicians for the FCC and/or NARTE commercial licenses for technicians and engineers in the communications field.

#### ELEC 68 — Laboratory Studies in Electronics Technology 1 to 2 Units
- Degree Applicable
- (May be taken four times for credit)
- 54 to 108 hours lab
- Advisory: ELEC 50B taken prior or concurrently
- 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.

#### ELEC 69 — Work Experience in Electronics 1 to 4 Units
- Degree Applicable
- (May be taken four times for credit)
- 18 to 72 hours lab
- Advisory: ELEC 54B taken prior or concurrently
- Prepares the technician as an Application Specialist for the IPC-7711/IPC-7721 Rework and Repair of Electronic Assemblies certification. (Note: Industry requires recertification every two years.)

#### ELEC 70 — Digital Electronics 4 Units
- Degree Applicable
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 56 taken prior
- Microcontroller systems and programming methods; programmable logic devices (PLDs); serial communications; conversion of signals from analog to digital formats and the converse. Industry applications, interfacing, and troubleshooting.

#### ELEC 71 — Microcontroller Systems 4 Units
- Degree Applicable
- 54 hours lecture
- 54 hours lab
- Advisory: ELEC 56 taken prior
- Microcontroller systems and programming methods; programmable logic devices (PLDs); serial communications; conversion of signals from analog to digital formats and the converse. Industry applications, interfacing, and troubleshooting.
### ELECTRONICS SYSTEMS TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 50</td>
<td>Electrical Fundamentals for Cable Installations</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EST 52</td>
<td>Fabrication Techniques for Cable Installation</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EST 54</td>
<td>Cabling and Wiring Standards</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EST 56</td>
<td>Home Theater, Home Integration and Home Security Systems</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EST 62</td>
<td>Electronic Troubleshooting-I</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EST 64</td>
<td>Electronic Troubleshooting - II</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EST 70</td>
<td>C-7 Low Voltage Systems License Preparation</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

### EMERGENCY MEDICAL SERVICE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 1</td>
<td>Fundamentals for Paramedics</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EMS 10</td>
<td>Anatomy and Physiology for Paramedics</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EMS 20</td>
<td>Emergency Cardiac Care for Paramedics</td>
<td>1</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>EMS 30</td>
<td>Pharmacology for Paramedics</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

### Course Descriptions

- **EST 50 — Electrical Fundamentals for Cable Installations**
  
  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**
  
  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**
  
  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 Theater, Home Integration and Home Security Systems**
  
  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**
  
  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**
  
  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**
  
  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**
  
  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**
  
  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**
  
  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**
  
  39 hours lecture  
  13 hours lab  
  Prerequisite: Admission to the Paramedic Program  
  Corequisite: EMS 10, EMS 20, EMS 30, 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**
  
  91 hours lecture  
  Prerequisite: Admission to the Paramedic Program  
  Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 60  
  Familiarizes the paramedic with the normal and the diseased heart; includes assessment tools, interpretation of various dysrhythmias and appropriate paramedic interventions.

- **EMS 50 — Paramedic Skills Competency**
  
  54 hours lecture  
  108 hours lab  
  Prerequisite: Admission to the Paramedic Program  
  Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 60  
  Perfect the paramedic skills required for field operation as a paramedic and for certification in competency-based exams.

- **EMS 60 — EMS Theory for Paramedics**
  
  156 hours lecture  
  Prerequisite: Admission to the Paramedic Program  
  Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 50  
  Theories and principles of paramedic practices, including assessment skills, care of the sick and injured at a paramedic level, with applications to anatomy and physiology, pathologic processes, and mechanism of injury.

- **EMS 70 — Paramedic Clinical Internship**
  
  4 hours lecture  
  215 hours lab  
  Prerequisite: EMS 1  
  Corequisite: EMS 60 (May have been taken previously.)  
  Clinical experience and application of paramedic theory and practice with an emphasis on patient assessment and utilization of paramedic skills in a hospital setting.
## Course Descriptions

### EMERGENCY MEDICAL TECHNICIAN

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 80</td>
<td>Paramedic Field Externship</td>
<td>9.5</td>
<td>Degree Applicable (May be taken for Pass/No Pass only) 479 hours lab.</td>
</tr>
<tr>
<td>EMT 90</td>
<td>Emergency Medical Technician I Refresher</td>
<td>10.5</td>
<td>Degree Applicable. 135 hours lecture. Prerequisite: High school graduation or equivalent and minimum of 18 years of age. 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>
</tr>
<tr>
<td>EMT 91</td>
<td>Emergency Medical Technician I</td>
<td>2</td>
<td>Degree Applicable. 40 hours lecture. 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. 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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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ENGR 1</td>
<td>Introduction to Engineering</td>
<td>1</td>
<td>Degree Applicable. 18 hours lecture. 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>
</tr>
<tr>
<td>ENGR 8</td>
<td>Properties of Materials</td>
<td>4</td>
<td>Degree Applicable, CSU, UC. (May be taken for option of letter grade or Pass/No Pass) 72 hours lecture. Prerequisite: ENGR 40 or 50 and PHYS 4A or 2AG 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>
</tr>
<tr>
<td>ENGR 18</td>
<td>Introduction to Engineering Graphics</td>
<td>3</td>
<td>Degree Applicable, CSU. (May be taken for option of letter grade or Pass/No Pass) 36 hours lecture. 54 hours lab. 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>
</tr>
<tr>
<td>ENGR 40</td>
<td>Statics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC. 54 hours lecture. Prerequisite: PHYS 4A. Static equilibrium of rigid bodies, forces, couples in two-and three-dimensional space. Application of equilibrium principles to trusses, frames and machines. Calculation of center of mass and centroid. Friction, moment of inertia, distributed and concentrated loads. Forces in cables and beams. Fluid statics. Introduction to virtual work. Vector approach.</td>
</tr>
<tr>
<td>ENGR 41</td>
<td>Dynamics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC. 54 hours lecture. Prerequisite: ENGR 40. Absolute and relative motion of particles and rigid bodies in translational and rotational motion. Instantaneous center of rotation. Application of Newton’s Second Law, work-energy and impulse-momentum methods. Introduction to mechanical vibrations. Vector approach.</td>
</tr>
<tr>
<td>ENGR 42</td>
<td>Mechanics of Materials</td>
<td>4</td>
<td>Degree Applicable, CSU, UC. 72 hours lecture. Prerequisite: ENGR 40. Mechanics of deformable bodies subjected to axial, torsional, shearing, and bending loads. Includes combined stresses, statically indeterminate structures; deflection and stress analysis of beams, stability of columns, strain energy methods, and design of pressure vessels and structures.</td>
</tr>
<tr>
<td>ENGR 44</td>
<td>Electrical Engineering</td>
<td>4</td>
<td>Degree Applicable, CSU, UC. 54 hours lecture. 54 hours lab. Prerequisite: PHYS 4B. Introduction to electrical circuit analysis; systems of units; applications of Kirchoff’s Laws and Thuevenin’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>
</tr>
<tr>
<td>ENGR 49</td>
<td>Special Projects in Engineering</td>
<td>1-2</td>
<td>Not Degree Applicable. (May be taken four times for credit) 18 to 36 hours lecture. Prerequisite: Phys 2AG or Phys 4A (May be taken previously). 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 upon the research problems being pursued. Each project is under the supervision of a faculty member. Student must have advisor's authorization before enrolling in this class. Students who repeat this course will meet with the instructor and make individual contracts of a more advanced nature to ensure that proficiency are enhanced.</td>
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</table>
### ENGINEERING DESIGN TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 11</td>
<td>Technical Engineering Drawing I</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>EDT 14</td>
<td>Mechanical Design - Geometric Dimensioning and Tolerancing</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>EDT 16</td>
<td>Basic CAD and Computer Applications</td>
<td>4</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>EDT 18</td>
<td>Engineering CAD Applications</td>
<td>4</td>
<td>Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms.</td>
</tr>
<tr>
<td>EDT 20</td>
<td>Technical Descriptive Geometry</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>EDT 24</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>EDT 26</td>
<td>Civil Engineering Technology and CAD</td>
<td>3</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>EDT 28</td>
<td>Engineering CAD 3D Illustration/Animation</td>
<td>3</td>
<td>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).</td>
</tr>
<tr>
<td>EDT 89</td>
<td>Engineering Design Technology Work Experience</td>
<td>1-2</td>
<td>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.</td>
</tr>
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</table>

### ENGLISH: COMPOSITION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A</td>
<td>Freshman Composition</td>
<td>4</td>
<td>Develops effective expository writing skills and investigates the principles and methods of composition as applied to the writing of essays and the research paper. Emphasizes critical reading of academic material.</td>
</tr>
<tr>
<td>ENGL 1AH</td>
<td>Freshman Composition - Honors</td>
<td>4</td>
<td>Develops effective expository writing skills and investigates the principles and methods of composition as applied to the writing of essays and the research paper. Emphasizes critical reading of academic material. Students may not receive credit for both ENGL 1A and ENGL 1AH.</td>
</tr>
<tr>
<td>ENGL 1B</td>
<td>English - Introduction to Literary Types</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>Course Descriptions</td>
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</tr>
<tr>
<td><strong>ENGL 1BH</strong> — English - Introduction to Literary Types</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td><strong>ENGL 8C</strong> — Creative Writing - Novel</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>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. May not receive credit for both ENGL 1B and ENGL 1BH.</td>
<td>Prerequisite: ENGL 8A</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 1C</strong> — Critical Thinking and Writing</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>72 hours lecture</td>
<td><strong>ENGL 8D</strong> — Creative Writing - Poetry Collection</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Develops critical thinking, reading, and writing skills. Focuses on logical analysis and argumentative writing.</td>
<td>Prerequisite: ENGL 8B</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 1CH</strong> — Critical Thinking and Writing - Honors</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>72 hours lecture</td>
<td><strong>ENGL 8E</strong> — Creative Writing - Memoir</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>Prerequisite: ENGL 1A or ENGL 1AH</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Develops critical thinking, reading, and writing skills. Focuses on 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.</td>
<td>Prerequisite: ENGL 8E</td>
<td>Analysis and writing of memoirs including stylistic and syntactic forms and composition strategies used when writing memoir.</td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 8F</strong> — Creative Writing - Nonfiction</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>Prerequisite: ENGL 8F</td>
<td></td>
</tr>
<tr>
<td>Elements, processes, and techniques for creating and writing nonfiction collections. Includes forms, theme, voice, style, with an emphasis on student development as a creator of creative nonfiction collections through reading, practice, writing, and discussion.</td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
<td>Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.</td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 8G</strong> — Creative Writing - Memoir Collection</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td><strong>ENGL 9</strong> — Writing the Personal Journal</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>Prerequisite: ENGL 8F</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Analysis and writing of creative nonfiction including stylistic and syntactic forms and composition strategies used when writing creative nonfiction.</td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 8H</strong> — Creative Writing-Memoir Collection</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td><strong>ENGL 9B</strong> — Expanding the Personal Journal</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>Prerequisite: ENGL 8H</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Development of memoir writing with emphasis on developing a memoir collection. Includes setting, character development, dialogue, theme, voice, laws and ethics, and publication with an emphasis of student development as a writer of a complete book length memoir collection through reading, practice and discussion.</td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
<td></td>
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</tr>
<tr>
<td><strong>ENGL 8I</strong> — Creative Writing - Nonfiction Collections</td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td><strong>ENGL 9B</strong> — Expanding the Personal Journal</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>Prerequisite: ENGL 8F</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Elements, processes, and techniques for creating and writing creative nonfiction collections. Includes forms, theme, voice, style, with an emphasis on student development as a creator of creative nonfiction collections through reading, practice, writing, and discussion.</td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 9B</strong> — Expanding the Personal Journal</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>54 hours lecture</td>
<td><strong>ENGL 9B</strong> — Expanding the Personal Journal</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 1A</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Emphasizes advanced techniques for journal writing. Students will develop techniques that allow them to turn private work into public pieces. Processes and techniques will be improved through practice and discussion.</td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 64</strong> — Writing Effective Sentences</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>18 hours lecture</td>
<td><strong>ENGL 65</strong> — Grammar Review</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 67</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td></td>
</tr>
<tr>
<td>Improve sentence writing skills through the analysis and application of sentence elements. Includes the identification and correction of common sentence problems, such as comma splice, fragment, and run-on.</td>
<td>Prerequisite: Eligibility for ENGL 67</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ENGL 65</strong> — Grammar Review</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>18 hours lecture</td>
<td>Review fundamentals of English for the student who needs a practical course focusing on usage and grammar: case, agreement, verbs, verbs, 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.</td>
<td></td>
</tr>
</tbody>
</table>
### Course Descriptions

**ENGL 66 — Paragraph Writing**  
1 Unit  
Not Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
18 hours lecture  
Analysis and writing of paragraphs. Through the process of writing, the student learns to state and support a topic idea. Students who repeat this course will improve skills through further instruction and practice.

**ENGL 67 — Writing Fundamentals**  
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 completion of AMJA 42W or completion of LERN 81  
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, 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 68 — Preparation for College Writing**  
Degree Applicable  
4 Units  
(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 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  
Language structure, linguistics, language development. Explores first and second-language acquisition as it pertains to K-12 learners. 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 four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
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.

**ENGLISH: LITERATURE**

**LIT 1 — Early American Literature**  
3 Units  
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  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A  
Emphasizes characteristic late 19th, 20th, and 21st century concerns as they relate to American literary form and content.

**LIT 3 — Multicultural American Literature**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 68 or passing score on current placement test  
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.

**LIT 6A — Survey of English Literature**  
3 Units  
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**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
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**  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ENGL 1A  
Surveys 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 to 1650**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A  
Surveys works of classical Greece through the Renaissance. Emphasizes the interrelationship of literature, art, society, politics, philosophies and general culture.

**LIT 11B — World Literature from 1650**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A  
Works and ideas from 1650 through the 21st century emphasizing those works which not only reflect qualities of universal greatness but also the thought and spirit of the ages in which they were written. Emphasizes how art, society, politics, philosophies and general culture are interrelated and reflected in the literature of these different eras.

**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 and 21st centuries, with the major emphasis on contemporary poems.

**LIT 15 — Introduction to Cinema**  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: ENGL 1A  
Examines the significant poetry of England and America in the 20th and 21st centuries, with the major emphasis on contemporary poems.
### Course Descriptions

#### LIT 20 — African American Literature 3 Units
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.

#### LIT 47 — The Bible as Literature: New Testament 3 Units
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 New Testament.

#### FAMILY AND CONSUMER SCIENCES

#### 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 effects of cultural forces and future trends on goals, values, standards, and time management.

#### FASH 8 — Introduction to Fashion 3 Units
Degree Applicable, CSU
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
Degree Applicable, CSU
54 hours lecture
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
36 hours lecture
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
54 hours lab
Prerequisite: FASH 10
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.
<table>
<thead>
<tr>
<th>COURSE DESCRIPrIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FASH 15</strong> — <strong>Fashion and Identity</strong> 3 Units</td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
</tbody>
</table>

| **FASH 17** — **Textiles** 3 Units  | Degree Applicable, CSU, UC  |
| 36 hours lecture  | Manufacturing of textiles and fabrics and the factors that determine the suitability for end use. Topics include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation, and care. Emphasis is on selection criteria for textile product design and recent developments in the textile field.  |

| **FASH 20** — **Illustration for Fashion and Costume Design** 3 Units  | Degree Applicable, CSU  |
| 36 hours lecture  | 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.  |

| **FASH 21** — **Patternmaking I** 3 Units  | Degree Applicable, CSU  |
| 36 hours lecture  | 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.  |

| **FASH 22** — **Fashion Design By Draping** 3 Units  | Degree Applicable  |
| 36 hours lecture  | Three dimensional dress design through draping fabrics directly to a dress form to create original designs or to interpret fashion illustrations.  |

| **FASH 23** — **Patternmaking II** 3 Units  | Degree Applicable  |
| 36 hours lecture  | Intermediate pattern drafting and flat patternmaking, with an introduction to the sizing and grading of patterns. 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.  |

| **FASH 24** — **Fashion Patternmaking by Computer** 3 Units  | Degree Applicable  |
| 36 hours lecture  | Industrial fashion patternmaking and grading using Gerber Computer Aided Design (CAD) technology. Exploration of drafting techniques, pattern development, flat pattern manipulation and the sizing and grading of patterns.  |

| **FASH 25** — **Fashion Computer-Assisted Drawing** 3 Units  | Degree Applicable, CSU  |
| 36 hours lecture  | Technical fashion drawing techniques using Adobe Illustrator and Photoshop. Includes drawing production flats, colorization and scanning images using computer as a drafting tool. Exploration of popular computer techniques and methods suitable for use in apparel industry.  |

| **FASH 26** — **Fashion Computer Assisted Design** 2 Units  | Degree Applicable  |
| 18 hours lecture  | 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 sketches and vector flat drawings.  |

| **FASH 27** — **Fundamentals of Merchandising** 3 Units  | Degree Applicable, CSU  |
| 36 hours lecture  | Characteristics and role of advertising and promotion in business. 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.  |

| **FASH 28** — **Retail Management and Merchandising** 3 Units  | Degree Applicable, CSU  |
| 36 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.  |

| **FASH 29** — **Fashion Design and Product Development I** 3 Units  | Degree Applicable  |
| 54 hours lecture  | 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.  |

| **FASH 30** — **Visual Merchandising Display** 3 Units  | Degree Applicable, CSU  |
| 36 hours lecture  | 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.  |

| **FASH 31** — **Fashion Design and Product Development II** 3 Units  | Degree Applicable  |
| 36 hours lecture  | Introduction to the sizing and grading of patterns. 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.  |

| **FASH 32** — **Fashion Design and Product Development III** 3 Units  | Degree Applicable  |
| 36 hours lecture  | 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 sketches and vector flat drawings.  |

| **FASH 33** — **Retail Management and Merchandising** 3 Units  | Degree Applicable, CSU  |
| 36 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.  |

| **FASH 34** — **Fashion Design and Product Development III** 3 Units  | Degree Applicable  |
| 36 hours lecture  | 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.  |

| **FASH 35** — **Special Topics in Fashion Design** 2 Units  | Degree Applicable  |
| 18 hours lecture  | May be taken four times for credit.  |
| 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.  |

| **FASH 62** — **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 BUSS 50.  |

| **FASH 63** — **Advertising and Promotion** 3 Units  | Degree Applicable, CSU  |
| 54 hours lecture  | Characteristics and role of advertising and promotion in business. 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.  |

| **FASH 66** — **Visual Merchandising Display** 3 Units  | Degree Applicable, CSU  |
| 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.  |
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 81</td>
<td>Work Experience in Fashion</td>
<td>1 to 3</td>
<td>Provides fashion 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. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>FASH 90</td>
<td>Field Studies</td>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>FASH 91</td>
<td>Field Studies - New York</td>
<td>2</td>
<td>Provides fashion 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. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>FASH 92</td>
<td>Field Studies - Fashion Capitals</td>
<td>3</td>
<td>Provides fashion 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. Students who repeat this course will improve skills through further instruction and practice.</td>
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</table>

## FIRE TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 1</td>
<td>Fire Protection Organization</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 2</td>
<td>Fire Prevention Technology</td>
<td>3</td>
<td>Introduction and history of fire prevention, including codes, ID and correction of hazards, investigation, and safety education.</td>
</tr>
<tr>
<td>FIRE 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 4</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
<td>Building construction and fire code safety effects on preplanning, engineering, inspections, fire ground operations, fire and building codes relationships.</td>
</tr>
<tr>
<td>FIRE 5</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 6</td>
<td>Hazardous Materials/ICS</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 9</td>
<td>Fire Hydraulics</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 11</td>
<td>Fire Apparatus and Equipment</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>FIRE 12</td>
<td>Wildland Fire Control</td>
<td>4.5</td>
<td>Addresses wildland fire behavior, safety considerations, strategy, tactics, and operational differences within the wildland urban interface.</td>
</tr>
</tbody>
</table>
FIRE 86 — Basic Fire Academy 14.5 Units
135 hours lecture
383 hours lab
Prerequisite: FIRE 1 through FIRE 6 or equivalent, PE 50 or equivalent, EMT certified, and either PE-F 50 or PE-F 51 or PE-F 52 (or equivalent)
Corequisite: PE-F 53
Instruction 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 91 — Fire Academy Ladders 1 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
8 hours lecture
32 hours lab
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)
(May be taken for Pass/No Pass only)
150 hours activity
Prerequisite: Compliance 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
Degree Applicable, CSU, UC
72 hours lecture
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
Degree Applicable, CSU, UC
72 hours lecture
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
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
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
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
72 hours lecture
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
(May be taken for option of letter grade or Pass/No Pass)
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
(May be taken for option of letter grade or Pass/No Pass)
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 53 — Intermediate Conversational French 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: FRCH 2 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
(May be taken for option of letter grade or Pass/No Pass)
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
(May be taken for option of letter grade or Pass/No Pass)
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
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.
Course Descriptions

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.

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 30 — 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. Field trip required.

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
54 hours lab
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 11 — Intermediate GIS  3 Units
Degree Applicable
54 hours lecture
Prerequisite: GEOG 10
Examines and addresses environmental needs of the community through service learning projects. Students will perform work needed for restoring significant habitats damaged by pollution, fire, erosion, or invasive species. Examples of some of the work include planting trees, building trails, or collecting litter. Field trips required.

GEOG 1H — Physical Geography Laboratory - Honors  1 Unit
Degree Applicable, CSU, UC
54 hours lab
Corequisite: GEOG 1 or GEOG 1H (may have been previously taken)
Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems.

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 10L — Physical Geography Laboratory  1 Unit
Degree Applicable, CSU, UC
54 hours lab
Corequisite: GEOG 1 or GEOG 1H (may have been previously taken)
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 11L — Geography Service Learning Laboratory  0.5-2 Units
Degree Applicable
27 to 108 hours lab
Corequisite: GEOG 91 (May have been previously taken)
Examines and addresses environmental needs of the community through service learning projects. Students will perform work needed for restoring significant habitats damaged by pollution, fire, erosion, or invasive species. Examples of some of the work include planting trees, building trails, or collecting litter. Field trips required.

GEOG 91 — Service Learning for Geography  1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Increases awareness and appreciation for civic responsibility to the environment through service learning. Students will assess the need for restoring significant habitats damaged by pollution, fire, erosion, or invasive species and learn the importance of being good stewards of the environment. Field trips required.

GEOG 30H — Geography of California - Honors  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Thematic approach to issues, processes, and topics relevant to the study of California geography. 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. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 30 and GEOG 30H. Field trip required.
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 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.

GEOL 8 — Earth Science
3 Units 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.

GEOL 8L — Earth Science Laboratory
1 Unit Degree Applicable, CSU, UC
54 hours lab
Corequisite: GEOL 8 or GEOL 8H (may have been taken previously)
Laboratory applications and problem-solving in geology, oceanography, meteorology, and astronomy. Recommended for students needing a lab transfer to a 4-year college/university.

GEOL 9 — Environmental Geology
3 Units 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 sound land management, conservation of resources, and protection of the environment. Field trips included.

GEOL 10 — Natural Disasters
3 Units 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.

GEOL 24 — Geologic Field Studies: Central California
4 Units Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Field studies of selected central California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking.

GEOL 25 — Geologic Field Studies: Southern California
4 Units Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
54 hours lab
Field studies of selected southern California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking.

GEOL 8H — Earth Science - 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 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.

GEOL 29 — Special Topics in Field Geology
3 Units Degree Applicable
(May be taken four times for credit)
18 hours lecture
108 hours lab
Advisory: GEOL 1 or GEOL 8
Field studies of designated geologic provinces and regions. Emphasis on rock identification and interpretation of geologic histories of field areas. Extended overnight field trips, camping, and strenuous hiking required.

GEOL 99 — Special Projects in Geology
2 Units Degree Applicable, CSU
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.

GERMAN

GERM 1 — Elementary German
4 Units Degree Applicable, CSU, UC
72 hours lecture
For students with no previous German. Develops the ability to converse, read, and write in German. Emphasis on oral proficiency. Includes essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Germanic culture.

GERM 2 — Continuing Elementary German
4 Units Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: GERM 1 or equivalent
Further development of conversational reading and writing skills in German with emphasis on communication skills, expansion of vocabulary, and understanding of structure. Further study of Germanic culture.

GERM 3 — Intermediate German
4 Units Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: GERM 2 or three years of high school German or equivalent
Further development of communicative proficiency in German and exploration of Germanic culture. Further study and review of grammar and expansion of vocabulary. Increasing emphasis on reading and writing in German.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1</td>
<td>History of the United States</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: Eligibility for ENGL 68&lt;br&gt;A survey of the history of the United States from colonial times to the present designed for transfer students who need a one-semester course in United States history to meet general education requirements. (Social Science majors should take History 7-8.) 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 3</td>
<td>World History: Prehistoric to Early Modern</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: Eligibility for ENGL 1A&lt;br&gt;Human societies from their origins to the Early Modern period from a global and comparative perspective including social, political, economic, and cultural institutions and changes.</td>
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<tr>
<td>HIST 4</td>
<td>World History: Early Modern to the Present</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: Eligibility for ENGL 1A&lt;br&gt;Social, political, economic, and cultural changes during the modern period from a global and comparative perspective.</td>
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<tr>
<td>HIST 7</td>
<td>History of the United States</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: Eligibility for ENGL 1A&lt;br&gt;Survey of American history from Native American origins through post-Civil War Reconstruction with an encompassing approach to the United States and its major ethnic and social groups. Explores the influence of the geography and environment of North America and the ethnic, social, and religious complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country. Satisfies the requirement for a course in American history, including the study of American institutions and ideas 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 8</td>
<td>History of the United States</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: Eligibility for ENGL 1A&lt;br&gt;Survey of American history from 1865 to the present. Designed for history, social science, or humanities majors, or for transfer students who need a year course in United States history to meet general education requirements. Satisfies the requirement for a course in American history, including the study of American institutions and ideals and the principles of State and local government as required by Title 5 of the California Administrative Code.</td>
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<tr>
<td>HIST 10</td>
<td>History of Asia</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;Survey history of China, Japan, India, and the colonial systems from 1600 to the 21st Century. Emphasizes the confrontation between Asia and the Western world. Topics include economic and political systems, religion and art, the splendor of the imperial courts, and the lives of the peasants.</td>
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<tr>
<td>HIST 11</td>
<td>History of Mexico</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;Survey of Mexican history from the pre-historical era to 1600. Topics include the geography and environment of North America and the ethnic, social, and religious complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country. Satisfies the requirement for a course in American history, including the study of American institutions and ideas 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 16</td>
<td>The Wild West - A History, 1800-1890</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;(May be taken for option of letter grade or Pass/No Pass)&lt;br&gt;54 hours lecture&lt;br&gt;Prerequisite: Eligibility for ENGL 68&lt;br&gt;Surveys the history of the Trans-Mississippi West to acquaint students with the historical significance, events and personalities which make up 19th Century American history.</td>
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<tr>
<td>HIST 19</td>
<td>History of Mexico</td>
<td>3</td>
<td>Degree Applicable, CSU, UC&lt;br&gt;54 hours lecture&lt;br&gt;The cultural and social history of the Mexican people from pre-Colombian civilization to modern Mexico.</td>
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</tbody>
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Degree Applicable, CSU, UC

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Survey history of China, Japan, India, South Asia, and Southeast Asia from the pre-historical era to 1600. Topics include the geography and environment of North America and the ethnic, social, and religious complexity of the population. Also examines political, philosophical, and intellectual influences on the founding fathers, American political institutions, and the citizens of the country. Satisfies the requirement for a course in American history, including the study of American institutions and ideas and the Constitution of the United States 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 HIST 8 and HIST 8H. |
COURSE DESCRIPTIONS

HIST 30 — History of the African Americans 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
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.

HIST 31 — History of the African Americans 3 Units
Degree Applicable, CSU, UC
54 hours lecture
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 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.

HIST 35 — History of Africa 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
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.

HIST 36 — Women in American History 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Women's experience placed within the context of major themes of United States history, addressing issues and debates related to gender construction and identity from Colonial times to the present. Political, economic, and social currents within in the context of race, ethnicity, sexual orientation, and class are examined and analyzed. 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.

HIST 39 — California History 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
The social, intellectual, economic, and political development of California and the Pacific Coast from earliest times to the present.

HIST 40 — History of the Mexican Americans 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
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.

HIST 44 — History of Native Americans 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Advisory: Eligibility for ENGL 1A
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 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.

HIST 99 — Special Projects in History 2 Units
Degree Applicable, CSU
36 hours lecture
Prerequisite: HT 12
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 proficiencies are enhanced.

HISTOTECHNOLOGY

HT 1 — Introduction to Histotechnology 1 Unit
Degree Applicable
18 hours lecture
Prerequisite: Eligibility for ENGL 68
An overview of the role of histotechnicians in the 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.
### COURSE DESCRIPTIONS

#### 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 structure; career opportunities at various levels in hotels, restaurants, food service industries 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

4 hours lab

Advisory: HRM 52

Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; and choosing the proper food grade; evaluation of food products, and equipment usage.

#### HRM 55 — Management of Hospitality Personnel 3 Units and Operations
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 56 — Restaurant Cost Control 3 Units
Degree Applicable, CSU

54 hours lecture

Corequisite: HRM 52 (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 57 — Restaurant Cost Control 3 Units
Degree Applicable, CSU

54 hours lecture

Corequisite: HRM 51 (May have been taken previously)

Basic principles of purchasing for the hospitality industry. Ordering, receiving, storage, characteristics of products and grade selection for different situations are emphasized. Choosing the best supplies, negotiating the best terms and writing product specifications are covered.

#### HRM 60 — Hospitality Purchasing 3 Units
Degree Applicable, CSU

54 hours lecture

Corequisite: HRM 52 (May have been taken previously)

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 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 catering 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 64 — Hospitality Financial Accounting I 3 Units
Degree Applicable, CSU

54 hours lecture

Prerequisite: BUSA 11 or MATH 51

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.

#### HRM 66 — Hospitality Law 3 Units
Degree Applicable, CSU

54 hours lecture

Advisory: HRM 51

Basic principles of contracts, liability and labor as they apply specifically to the hospitality industry. Students will discuss previous cases and decide the fate of fictional 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 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.

#### HRM 81 — Garde Manger 3 Units
Degree Applicable

36 hours lecture

54 hours lab

Corequisite: HRM 52 (May have been taken previously)

Preparation and presentation of cold kitchen foods including: sauces, soups, salads, sandwiches, appetizers, hors d’oeuvres, and buffets.

#### HRM 82 — Baking and Pastry 3 Units
Degree Applicable

36 hours lecture

54 hours lab

Corequisite: HRM 52 (May have been taken previously)

Preparation of baked goods and pastries including: breads, cakes, icing, laminated pastries, cookies, pies, tarts, and plated desserts.
INSP 17 — Legal Aspects of Construction 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: HRM 52 (May have been taken previously)
Preparation of international cuisines from Asia, Europe, the Mediterranean, and Latin America. Emphasis will be placed on regional dishes from: China, Japan, India, Thailand, Spain, Italy, France, Greece, Lebanon, and Mexico.

HRM 91 — Hospitality Work Experience 1 to 4 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides students with on-the-job experience in an approved worksite 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 faculty. Students who repeat this course will improve skills through further instruction and practice.

INTERIOR DESIGN

HUMANITIES

HUMA 1 — The Humanities 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
An interdisciplinary study of the artistic, musical, literary and philosophical accomplishments and achievements of women and methods 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.

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 20 — Color and Design Theory I 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Formerly ID 130.
Elements and principles of design and the creative process of identifying and solving interior design problems. Formal visual properties of line, shape, form, pattern, texture, and color are studied in their relationship to the organizational systems and unifying principles that create balanced designs. Portfolio pieces will be produced. Field trips may be required.

ID 21 — Color and Design Theory II 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Advisory: ID 20
Elements and principles of design and the creative process of identifying and solving interior design problems. Formal visual properties of line, shape, form, pattern, texture, and color are studied in their relationship to the organizational systems and unifying principles that create balanced designs. Portfolio pieces will be produced. Field trips may be required.

ID 22 — Design Drawing for Interior Design 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Communication elements required to convey design ideas to building trades via the written language of design and construction documents. Graphic and drawing techniques, including interior design graphics standards, building construction fundamentals, methods of drawings, and the basics of compiling construction documentation sets. Field trips may be required.

ID 23 — Computer Aided Drawing for Interior Design I 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Advisory: ID 22 or ARCH 11
Computer Aided Drawing (CAD) as a communication element required to convey interior design ideas to building trades. Includes graphic and drawing techniques, interior design graphics, building construction fundamentals, methods of drawings, and construction documentation sets. Portfolio pieces will be produced. Field trips may be required.

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
Basis 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 77 — 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.

ID 10 — Introduction to Interior Design 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Formerly ID 100.
Practice of interior design and the planning of total interior environments that meet individual, functional and environmental needs. Field trips may be required.

ID 12 — Materials and Products for Interior Design 3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Formerly ID 150.
Analysis, application, and evaluation of products and materials used in interior design. Field trips required.

ID 14 — History of Furniture and Decorative Arts 3 Units
Degree Applicable, CSU
54 hours lecture
Formerly ID 180 and ID 190.
Historic development of structure, interior spaces, furniture and decorative arts throughout the world. Interior architecture is illustrated in this overview of design heritage from antiquity to present. Emphasis is placed on style development as it relates to social, economic and political influences as well as the use of materials and technology. Field trips may be required.
<table>
<thead>
<tr>
<th>Course Descriptions</th>
</tr>
</thead>
</table>
| **ID 25 — Codes and Specifications for Interior Design** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 22 or ARCH 11  
   Formerly ID 250.  
   Federal and state codes and specifications concerning life-safety issues, barrier free access and universal design requirements relative to residential and contract interior design. Attention is given to performance, health safety, and universal design for specifying interior materials and products. Portfolio pieces will be produced. Field trips may be required. |
| **ID 26 — Space Planning for Interior Design** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 22 or ARCH 11  
   Formerly ID 170.  
   Space planning with an emphasis on programming, behavioral aspects of space, use of furniture standards and applicable codes. Planning skills are gained through the application of basic principles to actual spaces. Portfolio pieces will be produced. Field trips may be required. |
| **ID 27 — Rapid Visualization** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 22 or ARCH 11  
   Formerly ID 260.  
   Methods, techniques, and tools used in illustrating interior spaces with an emphasis on rapid production. Includes techniques of drawing and rendering volume, tone, texture, perspective, and composition using sketching, rapid visualization, and formal composition of one and two-point perspectives. Portfolio pieces will be produced. Field trips may be required. |
| **ID 29 — Interior Design Studio I** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 26  
   Formerly ID 105.  
   Analysis and application of design concepts to interior environments. Focuses on the creative process of identifying and solving design problems while incorporating universal and sustainable design in a studio environment. Includes research and analysis of end-user needs, space requirements, existing architectural elements, and site conditions. Portfolio pieces will be produced. Field trips may be required. |
| **ID 31 — Building Systems for Interior Design** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 22 or ARCH 11  
   Formerly ID 210.  
   Principles and theory of interior lighting design, lighting technology, terminology, development of lighting design concepts and selection and placement of luminaries to achieve the desired result. Portfolio pieces will be produced. Field trips may be required. |
| **ID 32 — Lighting Design and Theory for Interior Design** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 22 or ARCH 11  
   Formerly ID 210.  
   Principles and theory of interior lighting design, lighting technology, terminology, development of lighting design concepts and selection and placement of luminaries to achieve the desired result. Portfolio pieces will be produced. Field trips may be required. |
| **ID 34 — Computer Aided Drawing for Interior Design II** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 23  
   Three-dimensional computer modeling, rendering, lighting, and fly-throughs as used in interior design. Portfolio pieces will be produced. Field trips may be required. |
| **ID 36 — Professional Practices for Interior Design** 3 Units  
   36 hours lecture  
   54 hours lab  
   Advisory: ID 29  
   Development of individual professional identities through self-branding as a marketing strategy. Emphasis is on personal, educational, and professional qualifications required for entry into interior design and related professions. Surveys the interior design profession, industry, and related occupations. Portfolio pieces will be produced. Field trips may be required. |
| **ID 37 — Business Practices for Interior Design** 3 Units  
   54 hours lecture  
   Formerly ID 230.  
   Principles, procedures, and systems necessary for interior design professionals to start a business. Emphasis will be placed on contracts, legal issues, budgets, revenue generation, purchasing, billing, compensation and collection, interactions with clients, designers, installers, and suppliers. Field trips may be required. |
| **ID 38 — Internship in Interior Design** 1-3 Units  
   (May be taken for credit)  
   (May be taken for Pass/No Pass only)  
   75 to 225 hours lab  
   Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog.  
   Formerly ID 240A and 240B.  
   Designed to provide the student with actual on-the-job experience in the interior design profession, which relates to classroom based learning. Placement is not guaranteed but assistance is provided by the interior design faculty. A 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. |
| **ID 39 — Interior Design Studio II** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 22 or ARCH 11  
   Advisory: ID 31 and ID 32  
   Formerly ID 215.  
   Analysis and application of design concepts to interior environments. Focuses on the creative process of identifying and solving design problems incorporating universal and sustainable design. Includes research and analysis of client requirements for complex programs and their solutions in order to satisfy end-user needs, functional space requirements, public image, existing architectural elements, and site conditions. Portfolio pieces will be produced. Field trips may be required. |
| **ID 40 — Kitchen and Bath Studio I** 3 Units  
   36 hours lecture  
   54 hours lab  
   Prerequisite: ID 29  
   Corequisite: ID 31 (May have been taken previously.)  
   Advisory: ID 32  
   Formerly ID 240A and 240B.  
   Kitchen and bath design that focuses on ergonomic principles, and specific materials including floor and wall surfaces, window treatments, cabinet selection, appliance and fixture selection, counter top selection, and lighting. Projects will consist of dimensioned floor plans, elevations, isometric drawings, perspective drawings, and section drawings completed in accordance with National Kitchen and Bath Association (NKBA) standards and nomenclature. Portfolio pieces will be produced. Field trips may be required. |
<table>
<thead>
<tr>
<th><strong>ID</strong></th>
<th><strong>Course Title</strong></th>
<th><strong>Units</strong></th>
<th><strong>Degree Applicable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ID 41</strong></td>
<td>Kitchen and Bath Studio II</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<tr>
<td><strong>ID 48</strong></td>
<td>Internship in Kitchen and Bath</td>
<td>1 to 3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td><strong>ID 50</strong></td>
<td>Interior Design Specialized Studio</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td><strong>ID 52</strong></td>
<td>Independent Studies in Interior Design</td>
<td>1 to 3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

### ITALIAN Course Descriptions

<table>
<thead>
<tr>
<th><strong>Course Code</strong></th>
<th><strong>Course Title</strong></th>
<th><strong>Units</strong></th>
<th><strong>Degree Applicable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ITAL 1</strong></td>
<td>Elementary Italian</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 2</strong></td>
<td>Continuing Elementary Italian</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 3</strong></td>
<td>Intermediate Italian</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 4</strong></td>
<td>Continuing Intermediate Italian</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 5</strong></td>
<td>Advanced Italian</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 6</strong></td>
<td>Continuing Advanced Italian</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 7</strong></td>
<td>Continuing Advanced Conversational Italian</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 8</strong></td>
<td>Continuing Conversational Italian</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 9</strong></td>
<td>Continuing Conversational Italian</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 10</strong></td>
<td>Advanced Conversational Italian</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 11</strong></td>
<td>Advanced Conversational Italian</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td><strong>ITAL 12</strong></td>
<td>Italian Culture Through Cinema</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

*Prerequisite: ID 40 (May have been taken previously.)*

- **ITAL 1** — Elementary Italian
  - 72 hours lecture
  - 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
  - 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
  - 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
  - 72 hours lecture
  - Prerequisite: ITAL 3 or equivalent
  - Further practice in speaking and writing of intermediate Italian. Extensive exposure to cultural elements from Italy such as art, music, film and history.

- **ITAL 5** — Advanced Italian
  - 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
  - 72 hours lecture
  - Prerequisite: ITAL 5 or equivalent
  - Extensive advanced reading, writing, and speaking in Italian that further develop cultural insight through the study of various Italian literary types.

- **ITAL 7** — Continuing Advanced Conversational Italian
  - 72 hours lecture
  - Prerequisite: ITAL 2 or ITAL 5 or equivalent
  - Development of elementary Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.

- **ITAL 8** — Continuing Conversational Italian
  - 72 hours lecture
  - Prerequisite: ITAL 2 or ITAL 5 or equivalent
  - Development of elementary Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.

- **ITAL 9** — Continuing Conversational Italian
  - 72 hours lecture
  - Prerequisite: ITAL 2 or ITAL 5 or equivalent
  - Development of elementary Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.

- **ITAL 10** — Advanced Conversational Italian
  - 72 hours lecture
  - Prerequisite: ITAL 2 or ITAL 5 or equivalent
  - Development of advanced Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context. Students who repeat this course will improve their skills through further instruction and practice.

- **ITAL 11** — Advanced Conversational Italian
  - 72 hours lecture
  - Prerequisite: ITAL 2 or ITAL 5 or equivalent
  - Development of advanced Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context. Students who repeat this course will improve their skills through further instruction and practice.

- **ITAL 12** — Italian Culture Through Cinema
  - 72 hours lecture
  - Italian culture through cinema from 1900 through analysis of the aesthetic, literary, artistic and philosophical movements in Italy as reflected in the works of the Italian film makers and writers. Lecture and class discussion to be conducted in English; film presentation with English subtitles.
JAPANESE

- **JAPN 1 — Elementary Japanese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Intended for students with no previous exposure to Japanese. Begins to develop the ability to converse, read, and write in Japanese. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures. Introduction to Japanese culture.

- **JAPN 2 — Continuing Elementary Japanese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: JAPN 1 or equivalent
  Further development of conversational, reading, and writing skills in Japanese with special emphasis on verbs, grammar, and extension of vocabulary. Includes a discussion of Japanese culture.

- **JAPN 3 — Intermediate Japanese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: JAPN 2 or equivalent
  Continued development of Kanji (50 or more characters) with 60 additional readings. Continued development of writing ability emphasizing development of thought through Kanji, Hiragana and Katakana. Additional development of cultural application of Japanese.

- **JAPN 4 — Continuing Intermediate Japanese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: JAPN 3 or equivalent

- **JAPN 5 — Advanced Japanese** 4 Units
  Degree Applicable, CSU, UC
  72 hours lecture
  Prerequisite: JAPN 4 or equivalent
  Advisory: Eligibility for ENGL 68
  Advanced Japanese communication skills with emphasis on conversational skills for daily and social settings in Japanese culture. Advanced study of grammar, vocabulary, Kanji characters, listening, speaking, reading, and writing. Extensive exposure to cultural elements from Japan such as art, music, film, and history.

- **JAPN 53 — Conversational Japanese** 3 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  54 hours lecture
  Prerequisite: JAPN 2 or equivalent

JOURNALISM

- **JOUR 100 — Mass Media and Society** 3 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  54 hours lecture
  Prerequisite: ENGL 1A
  Survey of the mass media and the interrelationships of media with society, including history, structure, and trends. Additionally, the following topics will be covered as they pertain to the mass media: economics, technology, law and ethics and such social issues as gender and cultural diversity.

- **JOUR 101 — Beginning News Writing** 3 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  54 hours lecture
  Prerequisite: ENGL 1A
  Evaluating, gathering, and writing news in accepted journalistic style under newsroom conditions. Includes role of the reporter and the legal and ethical issues relating to reporting. The student will have writing and reporting experiences, including personal interviews, speech, meeting and other event coverage, deadline writing, and use of AP style.

- **JOUR 102 — Intermediate News Writing** 3 Units
  Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  54 hours lecture
  Prerequisite: JOUR 101
  Develop expertise in news beat coverage and other specialized writing, including computer-assisted reporting. Print journalism emphasized with introduction to Web reporting. Assignments may include writing for the campus newspaper.

- **JOUR 103 — Writing for the Newspaper and Magazine** 2 Units
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  108 hours lab
  Prerequisite: JOUR 101
  Practical experience writing for the college student newspaper or magazine. Activities may include reporting, story writing, copy editing, Students who repeat this class will improve skills through further instruction and practice.

- **JOUR 104 — Newspaper and Magazine Production** 2 Units
  Degree Applicable, CSU
  (May be taken for option of letter grade or Pass/No Pass)
  108 hours lab
  Provides experience in the production of a college newspaper and magazine. Provides learning through electronic assembly of the newspaper and magazine using computers, layout and design software, image editing software, illustration software, digital cameras, and scanners. Students who repeat this course will improve skills through further instruction and practice.

- **JOUR 105 — Editor Training** 1 Unit
  Degree Applicable
  (May be taken for option of letter grade or Pass/No Pass)
  54 hours lab
  Prerequisite: JOUR 101
  Advisories: JOUR 101
  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.

- **JOUR 106 — Online New Media Laboratory** 2 Units
  Degree Applicable, CSU
  (May be taken for option of letter grade or Pass/No Pass)
  108 hours lab
  Advisories: JOUR 101
  Provides experience in a variety of online publishing activities to produce and enhance the online edition of a college newspaper. Provides learning through use of computers and online publishing software, podcasting software, web design software, live and videotape broadcasting software, digital cameras, video cameras, and wireless computer technology. 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
  Advisories: 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.
Media. Lecture and discussion of issues and responsibilities confronting media. Special emphasis on assignments for both audio and video tape planning, story organization, and functions of a broadcast newsroom are explored. Preprerequisite: JOUR 101 or JOUR 1A

42 hours lecture (May be taken for option of letter grade or Pass/No Pass)

JOUR 108 — Writing for Public Relations 3 Units
Degree Applicable, CSU

An introduction to public relations writing including news releases, feature stories, institutional publications, and newsletters. The relationships between public relations, the mass media, and society will be explored. Preprerequisite: JOUR 101 or JOUR 1A

54 hours lecture (May be taken for option of letter grade or Pass/No Pass)

JOUR 109 — Public Relations Internship 3 Units
Degree Applicable

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. Preprerequisite: JOUR 108 or JOUR 8

225 hours lab or 225 to 300 hours lab (May be taken for option of letter grade or Pass/No Pass)

JOUR 110 — Magazine Writing and Production 3 Units
Degree Applicable

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. Preprerequisite: JOUR 101 or JOUR 1A

36 hours lecture or 54 hours lecture (May be taken for option of letter grade or Pass/No Pass)

JOUR 111 — Broadcast News Writing 3 Units
Degree Applicable, CSU

Intensive news gathering and writing for radio and television. News cast planning, story organization, and functions of a broadcast newsroom are explored. Emphasis on assignments for both audio and video tape media. Lecture and discussion of issues and responsibilities confronting broadcast journalists including ethics and changing technology. Preprerequisite: JOUR 1A or JOUR 101

54 hours lecture (May be taken for option of letter grade or Pass/No Pass)

LEADERSHIP

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.

LATIN

LATN 1 — Elementary Latin 4 Units
Degree Applicable, CSU, UC

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. Preprerequisite: LATN 1

72 hours lecture (May be taken for option of letter grade or Pass/No Pass)

LATN 2 — Continuing Elementary Latin 4 Units
Degree Applicable, CSU, UC

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 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. Preprerequisite: LATN 1

72 hours lecture (May be taken for option of letter grade or Pass/No Pass)

LEARNING ASSISTANCE SERVICES

LERN 48 — Basic Math Skills Review 3 Units
Not Degree Applicable

Improves knowledge of basic math. Includes operations and applied problems in whole numbers, fractions, decimals, proportions, percentages, and integers. Covers math study strategies such as learning styles and self-assessment. Preprerequisite: LERN 48 or passing score on current placement test

54 hours lecture (May be taken for Pass/No Pass only)

LERN 49 — Math Skills Review 3 Units
Not Degree Applicable

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). Preprerequisite: LERN 48 or passing score on current placement test

54 hours lecture (May be taken for Pass/No Pass only)

LERN 61 — Skills Development Laboratory 1 Unit
Not Degree Applicable

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). Provides instruction in content and structure of sentences, paragraphs, and essays; emphasizes development in writing through the integration of grammar and critical thinking. Preprerequisite: LERN 48 or passing score on current placement test

108 hours lab (May be taken for Pass/No Pass only)

LERN 81 — Improving Writing 3 Units
Not Degree Applicable

Assist students who wish to improve prewriting, writing, editing, and revising skills. Provides instruction in content and structure of sentences, paragraphs, and essays; emphasizes development in writing through the integration of grammar and critical thinking. Preprerequisite: LERN 48 or passing score on current placement test

54 hours lecture (May be taken for Pass/No Pass only)
### Course Descriptions

#### Learning Communities

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
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<tbody>
<tr>
<td>LCOM 80</td>
<td>Learning Communities: Individual Connections</td>
<td>1 Unit</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td>LCOM 90</td>
<td>Learning Communities: Campus Connections</td>
<td>1 Unit</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>LCOM 100</td>
<td>Learning Communities: Interdisciplinary Connections</td>
<td>1 Unit</td>
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#### Library and Instructional Media

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>LIBR 1</td>
<td>Information Resources and Research Methods</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>LIBR 1A</td>
<td>Introduction to Library Research</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

#### Manufacturing Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 10</td>
<td>Mathematics and Blueprint Reading for Manufacturing</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>MFG 12</td>
<td>Manufacturing Processes II</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>MFG 13</td>
<td>AutoCAD 2D</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>MFG 16</td>
<td>3-D CAD Mechanical Modeling</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>MFG 19</td>
<td>Parametric Modeling for Manufacturing</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>MFG 25</td>
<td>Advanced Parametric Solid Modeling for Manufacturing</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>MFG 27</td>
<td>Autodesk Inventor</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>MFG 38</td>
<td>MasterCAM I</td>
<td>2 Units</td>
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</tr>
<tr>
<td>MFG 38B</td>
<td>MasterCAM II</td>
<td>2 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

#### Degree Applicability

- Degree Applicable, CSU
- Degree Applicable, UC
- Not Degree Applicable


**MATH 50 — Pre-Algebra**  
Not Degree Applicable  
54 hours lecture  
Prerequisite: 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**  
Not Degree Applicable  
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 51A — Elementary Algebra - First Half**  
Not Degree Applicable  
54 hours lecture  
Prerequisite: MATH 50 or qualifying score on current department placement test  
Contains the first half of elementary algebra. Operations with signed numbers and algebraic expressions; linear equations and inequalities; polynomial operations and factoring; rational expressions and equations; ratios, proportions, formulas, and variation; applications.

**MATH 51B — Elementary Algebra - Second Half**  
Not Degree Applicable  
54 hours lecture  
Prerequisite: MATH 51A  
Contains the second half of Elementary Algebra. Includes: Cartesian Coordinate System, slope/graphing/equations of lines, solving systems of linear equations, algebraic operations with radicals, solving equations with radicals, solving second degree equations using methods of completing the square and the quadratic formula. Students must complete both MATH 51A and MATH 51B to have taken the equivalent of Elementary Algebra (MATH 51).

**MATH 55 — Statway I**  
5 Units  
Degree Applicable  
90 hours lecture  
Prerequisite: MATH 50 or qualifying score on current department placement test  
The Statway path is a two-semester sequence recommended for majors that require no mathematics beyond freshman-level statistics. MATH 55 is the first of two in the Statway sequence. MATH 55 includes topics from descriptive statistics (experimental design and descriptive statistics), and beginning algebra (linear and quadratic algebraic phenomena), and is a prerequisite for Math 115, the second course in the Statway sequence. Both courses in the sequence, Math 55 and 115, must be taken to receive credit for college level statistics.

**MATH 61 — Plane Geometry**  
3 Units  
Degree Applicable  
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.
### 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>MATH 100</td>
<td>Survey of College Mathematics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: (MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test) and (MATH 61 or passing score on current geometry competency test)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Introduction to mathematical methods and reasoning. Topics include: set theory, logic, counting methods, probability and statistics, with additional topics selected from numerical and mathematical systems, number theory, geometry, graph theory and mathematical modeling.</td>
<td></td>
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<tr>
<td>MATH 110</td>
<td>Elementary Statistics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: (MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>MATH 120</td>
<td>Finite Mathematics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics for business, social science and biological science majors. Topics include linear programming, matrix theory, probability, statistics, stochastic processes, Markov chains, and math of finance.</td>
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<tr>
<td>MATH 130</td>
<td>College Algebra</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td>MATH 140</td>
<td>Calculus for Business</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 130 or MATH 160 or qualifying score on current department placement test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td>MATH 150</td>
<td>Trigonometry</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 71 or MATH 71B or qualifying score on current department placement test and MATH 61 or passing score on current geometry competency test</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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<tr>
<td>MATH 160</td>
<td>Precalculus Mathematics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 150, or qualifying score on current department placement test</td>
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<td></td>
<td>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.</td>
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<tr>
<td>MATH 170</td>
<td>Statistics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance.</td>
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<tr>
<td>MATH 180</td>
<td>Probability and Statistics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: (MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test) and (MATH 61 or passing score on current geometry competency test)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 190</td>
<td>Finite Mathematics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>hour lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics for business, social science and biological science majors. Topics include linear programming, matrix theory, probability, statistics, stochastic processes, Markov chains, and math of finance.</td>
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</tbody>
</table>

### Additional Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 71B</td>
<td>Intermediate Algebra - Second Half</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>hours lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 71A</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>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 71A, Intermediate Algebra.</td>
<td></td>
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</tr>
<tr>
<td>MATH 71X</td>
<td>Practical Intermediate Algebra</td>
<td>5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>90</td>
<td>hours lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: Math 51 or Math 51B or Math 55 or qualifying score on current department placement test.</td>
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</tr>
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<td></td>
<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 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.</td>
<td></td>
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<tr>
<td>MATH 76</td>
<td>Strategies for Math Success</td>
<td>1</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>hours lecture</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
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<tr>
<td>MATH 90</td>
<td>Special Projects in Mathematics</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36</td>
<td>hours lecture</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test.</td>
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<td></td>
</tr>
<tr>
<td></td>
<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. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
</tbody>
</table>

### Degree Applicable Courses

- **Degree Applicable, CSU**
- **Degree Applicable, CSU, UC**
- **Not Degree Applicable**

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Contains information about various mathematics courses offered at Mt. San Antonio College, including prerequisites, course durations, and descriptions of the topics covered in each course. The courses range from introductory algebra to advanced calculus and statistics, designed to meet the needs of students pursuing degrees in a variety of fields.
MATH 180 — Calculus and Analytic Geometry 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: MATH 160 or qualifying score on current department placement test
Functions, curve sketching, limits, the derivative, rules for differentiation of algebraic and trigonometric functions, applications of the derivative. Indefinite and definite integrals, numerical integration, and calculus with exponential, logarithmic, and other transcendental functions.

MATH 181 — Calculus and Analytic Geometry 5 Units
Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: MATH 180
Applications of integration, techniques of integration; indeterminate forms and improper integrals; infinite series; plane curves and parametric equations; vectors in two and three space and their applications.

MATH 210 — Concepts of Elementary Mathematics 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MATH 100
Structure and theory of the mathematics that constitute the core of K-8 mathematics curriculum. Concepts include the essential elements of a number system; fundamental understanding of operations upon whole numbers, rational numbers and integers; higher-order critical thinking skills and strategies in the area of problem solving.

MATH 245 — A Transition to Advanced Mathematics 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MATH 181
A transition to the rigor 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 280 — Calculus and Analytic Geometry 4 Units
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 285 — Linear Algebra and Differential Equations 5 Units
Degree Applicable, CSU, UC
90 hours lecture
Prerequisite: MATH 280
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.

MEDI 90 — Medical Terminology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: MATH 180
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.

MENT 40 — Introduction to Interviewing and Counseling 3 Units
Degree Applicable
54 hours lecture
Prerequisite: MATH 180
Theory and practice in interview skills. 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 MENT 40 and PSYC 40.

MENT 56 — Medical-Surgical Nursing for Psychiatric Technicians 9 Units
Degree Applicable
162 hours lecture
Prerequisite: Admission to the Psychiatric Technician Program
Corequisite: MENT 56
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 — Medical-Surgical Clinical Experience 4 Units
Degree Applicable
(May be taken for Pass/No Pass only)
216 hours lab
Corequisite: MENT 56
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 4 Units
Degree Applicable
90 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.

MENT 58L — Advanced Medical-Surgical Nursing 1.5 Units
Degree Applicable
(May be taken for Pass/No Pass only)
90 hours lab
Prerequisite: MENT 56 and MENT 56L
Application of nursing skills to patients with medical and surgical disorders. Administration of medications.

MENT 70 — Introduction to Psychiatric Technology 1.5 Units
Degree Applicable
27 hours lecture
Prerequisite: Admission to Psychiatric Technician Program
Corequisite: MENT 70L
Role and function of the Psychiatric Technician. Includes mental health theories of personality development, self-concept, role function, and interdependence. Also includes developmental disabilities theories of sensori-motor techniques and behavior modification techniques.
### Course Descriptions

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
<th>Credit Applicable</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENT 72</td>
<td>Nursing Care of the Developmentally Disabled Person</td>
<td>7</td>
<td>Degree Applicable</td>
<td>Prerequisite: MENT 56, MENT 56L, MENT 70, MENT 70L; Corequisite: MENT 72L; Etiology of developmental disabilities; develops the knowledge, skills, and attitudes necessary to safely teach and train the developmentally disabled person. Techniques of behavior modification and sensorimotor training are used, as well as the teaching of self-help skills. Examine normal development from infancy to the aged.</td>
</tr>
<tr>
<td>MENT 72L</td>
<td>Nursing Care of the Developmentally Disabled Person - Clinical</td>
<td>5.5</td>
<td>Degree Applicable</td>
<td>(May be taken for Pass/No Pass only); 287 hours lab; 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 73</td>
<td>Psychiatric Nursing for Psychiatric Technicians</td>
<td>5.5</td>
<td>Degree Applicable</td>
<td>Prerequisite: Admission to Psychiatric Technician Program, MENT 56 and MENT 56L; Corequisite: MENT 73T; Clinical instruction in the treatment of mental disabilities and substance abuse.</td>
</tr>
<tr>
<td>MENT 73T</td>
<td>Psychiatric Nursing for Psychiatric Technicians - Clinical</td>
<td>6</td>
<td>Degree Applicable</td>
<td>108 hours lecture; Prerequisite: MENT 56 and MENT 56L; Corequisite: MENT 73 and PSYC 1A; Advisory: MENT 40; 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</td>
<td>Work Experience in Mental Health Technology</td>
<td>2</td>
<td>Degree Applicable</td>
<td>Degree Applicable, CSU, UC; (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>MICR 22</td>
<td>Microbiology</td>
<td>4</td>
<td>Degree Applicable</td>
<td>54 hours lecture; Prerequisite: CHEM 10 or CHEM 40; Advisory: BIOL 1, BIOL 4 or BIOL 4H; Fundamental concepts of microbiology including viruses, bacteria, fungi, protozoa and parasitic worms.</td>
</tr>
<tr>
<td>MUS 2</td>
<td>Music Theory</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture; Corequisite: MUS 5A; Preparation for the study of harmony and form as it is practiced in Western tonal music. Topics include scales, intervals, chords, cadences, counterpoint and Roman numeral analysis. Ability to read music notation is advised. Required for music majors.</td>
</tr>
<tr>
<td>MUS 3A</td>
<td>Harmony</td>
<td>3</td>
<td>Degree Applicable</td>
<td>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.</td>
</tr>
<tr>
<td>MUS 3B</td>
<td>Harmony</td>
<td>3</td>
<td>Degree Applicable</td>
<td>54 hours lecture; Prerequisite: MUS 3A, MUS 5B; Corequisite: MUS 6A; 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.</td>
</tr>
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</table>
### MUS 3C — Harmony 3 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
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</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>54</td>
<td>Harmony</td>
<td>Further examination of the harmonic style of Western tonal music from the</td>
<td>MUS 3B, MUS 6A</td>
<td>CSU, UC</td>
<td>MUS 2</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>common practice period, with emphasis on 18th and 19th century repertoire.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MUS 6A — Musicianship - Advanced 2 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>36</td>
<td>Musicianship - Advanced</td>
<td>Provides further training in sight singing, aural perception and dictation,</td>
<td>MUS 3B, MUS 6A</td>
<td>CSU, UC</td>
<td>MUS 3C</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>including soprano-bass dictation of diatonic Bach-style chorales. Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>will be aided by the use of a computer lab and documented lab time outside</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MUS 6B — Musicianship - Advanced 2 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>36</td>
<td>Musicianship - Advanced</td>
<td>Provides further training in sight singing, aural perception and dictation,</td>
<td>MUS 3B, MUS 6A</td>
<td>CSU, UC</td>
<td>MUS 3C</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>including soprano-bass dictation of diatonic Bach-style chorales. Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>will be aided by the use of a computer lab and documented lab time outside</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MUS 7 — Fundamentals of Music 3 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>54</td>
<td>Fundamentals of Music</td>
<td>Non-music major course dealing with basic elements of music notation,</td>
<td></td>
<td>CSU, UC</td>
<td>MUS 2</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>melody, rhythm, and harmony. Written exercises utilizing the techniques</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>of melody, rhythm, and harmony will be employed. Recommended for</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MUS 8 — Applied Composition 3 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>36</td>
<td>Applied Composition</td>
<td>Further training in diatonic sight singing, rhythm reading, aural</td>
<td>MUS 2, MUS 5A</td>
<td>CSU, UC</td>
<td>MUS 1A</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>perception and dictation, including soprano-bass dictation of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>diatonic Bach-style chorales. Students will be aided by the use of a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>computer lab and documented lab time outside of class will be required for</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MUS 9 — Introduction to Music Technology 3 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>36</td>
<td>Introduction to Music Technology</td>
<td>A survey of the uses of computers and electronic devices to capture,</td>
<td></td>
<td>CSU, UC</td>
<td>MUS 6B</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>create, modify and disseminate music. Provides an introduction to the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>principles of musical acoustics, sound recording, and digital audio.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>Computer software for MIDI sequencing, sound synthesis, digital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>sampling, editing, music notation and composition will be</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>demonstrated and practiced in class. Assignments will include the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>creation of original music.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MUS 10 — Music Literature Survey 3 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>54</td>
<td>Music Literature Survey</td>
<td>A survey of western music from the Medieval period through the 18th</td>
<td></td>
<td>CSU, UC</td>
<td>MUS 2</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>century including examples of music from several non-western cultures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>Lectures are augmented by recordings and other support media pertinent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>to the culture/period being studied. Attending at least one live concert</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MUS 11A — American Music History 3 Units

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Title</th>
<th>Description</th>
<th>Corequisites</th>
<th>Degree Applicable</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>54</td>
<td>American Music History</td>
<td>History of music from the 18th to the early 21st century including</td>
<td></td>
<td>CSU, UC</td>
<td>MUS 11B</td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>examples from several non-western cultures that have</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>influenced music of those style periods. Lectures are augmented by</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>recordings and other support media pertinent to the cultures/period</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td>18</td>
<td></td>
<td>being studied. Attending at least one live concert is required.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 15</td>
<td>Rock Music History and Appreciation</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken option of letter grade or Pass/No Pass)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Historical survey of rock music from its beginnings in the early 50's 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 16</td>
<td>Individual Instruction</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: Admission by audition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied music for students also enrolled in a major performing group. Instruction includes a private one-half hour lesson per week. Individual problems of performance techniques, interpretation, and repertoire are included. Students who repeat this course will improve their skills through further instruction and practice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 17A</td>
<td>Elementary Piano</td>
<td>1</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve their skills through further instruction and practice. No prior musical experience is required.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 17B</td>
<td>Intermediate Class Piano</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: MUS 17A or professor approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reading and performances of piano literature with further emphasis on scales, chord progressions, and sight reading.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 18</td>
<td>Advanced Class Piano</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: MUS 17B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The style, technique and interpretation of piano music from the 17th century to the present is studied collectively and individually. Sight reading, improvisation and ensemble playing will be emphasized. Recommended for music majors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 20A</td>
<td>Elementary Class Voice</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: MUS 20B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group instruction on the basics of singing with special emphasis on breath control and its importance in the singing of the musical line. English and American songs will be studied. Open to non-music majors and recommended for all music majors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 20B</td>
<td>Intermediate Class Voice</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: MUS 20A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group and individual instruction toward mastering the basic skills required for a solid singing technique for popular, theatrical, and classical music. Studies of musicianship will concentrate on vocal problems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 21</td>
<td>Advanced Class Voice</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: MUS 20B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group and individual study of the style, techniques, and interpretation of art songs and songs from operas and musicals. Emphasis will be placed on diction and pronunciation of foreign languages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 22</td>
<td>Conducting</td>
<td>1.5</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaches and practices basic beat patterns, score reading, and rehearsal techniques. Offers an opportunity to learn and apply the techniques needed for group direction and leadership.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 23A</td>
<td>Elementary Guitar</td>
<td>1</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acoustic guitar playing, note reading, strumming, finger picking and improvisation. Students must furnish their own guitars. Students who repeat this course will improve their skills through further instruction and practice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 23B</td>
<td>Intermediate Class Guitar</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: MUS 23A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Techniques for reading and playing music arranged for the solo guitar. Students must furnish their own acoustic guitar.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 24</td>
<td>Advanced Guitar</td>
<td>1</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advisory: MUS 23B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Style, technique, and interpretation of guitar music of the 18th and 19th centuries. Includes sight reading and ensemble playing. Students must furnish their own acoustic guitars.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 25A</td>
<td>Jazz Improvisation</td>
<td>1</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Style and techniques of jazz improvisation. Students must furnish their own musical instruments to play for and with the class.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 25B</td>
<td>Jazz Improvisation</td>
<td>1</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Styles and techniques of jazz improvisation. Students must furnish their own musical instruments to play for and with the class.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 27</td>
<td>Chamber Winds</td>
<td>1.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: Admission by audition</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Select ensemble of wind and percussion instrumentalists specializing in the performance of high quality chamber music from the medieval period to the present. The course may include brass quintets, woodwind quintets, saxophone quartets, and mixed instrumental ensembles of two through twenty performers. Students must have previous instrumental experience and pass an entrance audition. Public performances on campus and in the community are required. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 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 29</td>
<td>Choral Workshop</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 30</td>
<td>Collegiate Chorale</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Concert Choir</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 32</td>
<td>Masterworks Chorale</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 34</td>
<td>Women's Vocal Ensemble</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 36</td>
<td>Concert and Community Band</td>
<td>1.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 38</td>
<td>Ensemble</td>
<td>0.5 Unit</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 39</td>
<td>Laboratory Band</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>MUS 44</td>
<td>Vocal Jazz Ensemble</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 45</td>
<td>Chamber Singers</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>MUS 46</td>
<td>Mt. SAC Singers</td>
<td>1.5 Units</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>MUS 47</td>
<td>Jazz Band</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

(May be taken four times for credit)

Prerequisites:
- Admission by audition during the first week of class

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.

- Vocal technique. Covers choral tone of the Renaissance to correct use of the microphone when singing pop or vocal jazz. Students who repeat this course will improve skills through further instruction and practice. Open to all students without an audition.
- Vocal development and music theory. Students who repeat this course will improve skills through further instruction and practice. Open to all students without an audition.
- Classical songs are rehearsed in class 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.

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.

A non-auditioned wind and percussion ensemble open to all students with prior instrumental experience. A variety of wind band repertoire will be studied and performed, from music of the Renaissance to contemporary compositions. Rehearsal time will also be devoted to instrumental and aural skills development. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided. Students who repeat this course will improve skills through further instruction and practice. Public performances on campus and in the community are required each semester.

A large 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 performance skills are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances including those off-site is required. Students who repeat this course will improve skills through further instruction and practice.

The study and performance of music written for small ensembles. On campus performances may be required. Students who repeat this course will improve skills through further instruction and practice.

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.
### 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 46</td>
<td>Men’s Vocal Ensemble</td>
<td>2 Units</td>
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<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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<td></td>
<td>Prerequisite: Admission by audition the first week of class</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MUS 49</td>
<td>Wind Ensemble</td>
<td>2 Units</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td>Prerequisite: Admission by audition</td>
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<tr>
<td></td>
<td>The premier classical wind and percussion ensemble at the College. Students must have previous musical training, a standard band instrument and pass an entrance audition. A variety of wind band repertoire will be studied and performed, from music of the medieval period to contemporary compositions. Public performances on campus and in the community are required and a concert tour may be included. Opportunities to conduct, arrange and compose music, and perform as a soloist may be provided to capable students. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 50</td>
<td>Jazz Improvisation and Performance Choir</td>
<td>3 Units</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>
<td></td>
<td>162 hours lab</td>
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<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>

### NURSING

<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>NURS 1A</td>
<td>The Nursing Process I</td>
<td>5 Units</td>
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<tr>
<td></td>
<td>45 hours lecture</td>
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<tr>
<td></td>
<td>135 hours lab</td>
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<tr>
<td></td>
<td>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 MCR 22 or equivalent, or MCR 1 or equivalent, and ENGL 1A or equivalent</td>
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<td></td>
<td>Corequisite: NURS 2</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>NURS 1B</td>
<td>The Nursing Process II</td>
<td>5 Units</td>
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<tr>
<td></td>
<td>45 hours lecture</td>
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<tr>
<td></td>
<td>135 hours lab</td>
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<td></td>
<td>Prerequisite: NURS 1A or Advanced Placement</td>
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<td></td>
<td>Corequisite: NURS 2</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>NURS 2</td>
<td>Pharmacology</td>
<td>2 Units</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Prerequisite: Admission to Nursing Program and eligibility for MATH 51</td>
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<td>Corequisite: NURS 1A</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NURS 3</td>
<td>Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology</td>
<td>3.5 Units</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>30 hours lecture</td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Prerequisite: NURS 1B and NURS 2 or Advanced Placement</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>NURS 4</td>
<td>Maternity Nursing</td>
<td>3 Units</td>
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<tr>
<td></td>
<td>27 hours lecture</td>
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<tr>
<td></td>
<td>81 hours lab</td>
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<td></td>
<td>Prerequisite: NURS 3 or Advanced Placement</td>
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<td></td>
<td>Concepts of nursing assessment and intervention with application to maternity and newborn clients. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<td>NURS 5</td>
<td>Psychiatric Nursing</td>
<td>3 Units</td>
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<tr>
<td></td>
<td>27 hours lecture</td>
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<tr>
<td></td>
<td>81 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: NURS 4 or Advanced Placement and PSYC 1A</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NURS 6</td>
<td>Pediatric Nursing</td>
<td>3 Units</td>
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<tr>
<td></td>
<td>27 hours lecture</td>
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<tr>
<td></td>
<td>81 hours lab</td>
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<td></td>
<td>Prerequisite: NURS 5 or Advanced Placement and CHLD 10 or PSYC 14</td>
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<tr>
<td></td>
<td>Concepts of nursing assessment and intervention with application to pediatric clients. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<td>NURS 7</td>
<td>Medical-Surgical Nursing: Nursing: Nutrition/ Elimination/Surgical Asepsis</td>
<td>7.5 Units</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>63 hours lecture</td>
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<tr>
<td></td>
<td>215 hours lab</td>
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<td></td>
<td>Prerequisite: NURS 6 or Advanced Placement</td>
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<td></td>
<td>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.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Description</td>
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<tr>
<td>NURS 70</td>
<td>Role Transition</td>
<td>3</td>
<td>Degree Applicable</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>36 hours lecture</td>
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<td></td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Prerequisite: Advanced Placement; PT (Psychiatric Technician) or LVN (Licensed Vocational Nurse); ANAT 35 or equivalent and ANAT 36 or equivalent, or ANAT T04 or equivalent and ANAT T05 or equivalent, and MCR 22 or equivalent, or MCR 1 or equivalent, and ENGL 1A or equivalent, and PSTC 1A or equivalent, and CHLD 10 or equivalent or PSYC 14 or equivalent</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NURS 11</td>
<td>Preceptorship in Nursing</td>
<td>2</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>112 hours lecture</td>
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<td>Prerequisite: NURS 10 or Advanced Placement</td>
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<td></td>
<td>Concepts of nursing assessment and intervention to clients with neurological and endocrine disorders. The Betty Neuman Model services as the conceptual framework.</td>
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<tr>
<td>NURS 20</td>
<td>Nursing Work Experience Program</td>
<td>1 to 4</td>
<td>Not 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>75 to 300 hours lab</td>
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<td>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.</td>
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<tr>
<td>NURS 25</td>
<td>Essentials of Nutrition</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NURS 7</td>
<td>Leadership in Nursing</td>
<td>1</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>18 hours lecture</td>
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<td></td>
<td>Prerequisite: NURS 7 or Advanced Placement</td>
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<td></td>
<td>Corequisite: NURS 8</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NURS 8</td>
<td>Medical-Surgical Nursing: Circulation and Oxygenation</td>
<td>5.5</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>45 hours lecture</td>
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<tr>
<td></td>
<td>167 hours lab</td>
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<td>Prerequisite: NURS 7 or Advanced Placement</td>
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<td></td>
<td>Corequisite: NURS 9</td>
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<td></td>
<td>Concepts of nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<td>NURS 10</td>
<td>Nursing: Integration/Regulation</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>45 hours lecture</td>
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<tr>
<td></td>
<td>96 hours lab</td>
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<td></td>
<td>Prerequisite: NURS 8, NURS 9 or Advanced Placement</td>
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<tr>
<td></td>
<td>Corequisite: NURS 8</td>
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<tr>
<td></td>
<td>Concepts of nursing assessment and intervention to clients with neurological and endocrine disorders. The Betty Neuman Model services as the conceptual framework.</td>
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<tr>
<td>NURS 30</td>
<td>Food Science Technologies</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>Advisory: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>Exploration of food chemistry, food processing and technology and how these affects the color, flavor, texture, aroma and quality of foods. 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.</td>
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<tr>
<td>NF 10</td>
<td>Nutrition for Personal Health and Wellness</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>Prerequisite: Eligibility for ENGL 68</td>
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<tr>
<td></td>
<td>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.</td>
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<td></td>
<td>This course is intended for non-health science majors.</td>
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<tr>
<td>NF 20</td>
<td>Principles of Foods with Lab</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NF 25</td>
<td>Essentials of Nutrition</td>
<td>3</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>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NF 26H</td>
<td>Essentials of Nutrition - Honors</td>
<td>3</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>Prerequisite: Acceptance into the Honors Program</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NF 28</td>
<td>Cultural and Ethnic Foods</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>Advisory: Eligibility for ENGL 68</td>
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<td></td>
<td>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.</td>
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<tr>
<td>NF 30</td>
<td>Food Science Technologies</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>Advisory: Eligibility for ENGL 68</td>
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<td></td>
<td>Exploration of food chemistry, food processing and technology and how these affects the color, flavor, texture, aroma and quality of foods. 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.</td>
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<tr>
<td>NF 31</td>
<td>Creative Foods</td>
<td>3</td>
<td>Degree Applicable, CSU</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>Advisory: NF 20 or food preparation experience</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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</tr>
</tbody>
</table>
### Course Descriptions

#### 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, identify types of arguments, 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, identify types of arguments, 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
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.

#### PHIL 5H — Introduction to Philosophy - Honors 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 8 — Critical Thinking 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 9 — Critical Thinking and Logical Writing 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A
The function and use of formal and informal logic, argument, critical evaluation, and language in written composition.

#### PHIL 12 — Ethics 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 15H</td>
<td>Major World Religions - Honors</td>
<td>3</td>
<td>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 religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Shinto, Judaism, Christianity, Islam. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 15 and PHIL 15H.</td>
</tr>
<tr>
<td>PHIL 20A</td>
<td>History of Western Philosophy</td>
<td>3</td>
<td>Major western philosophers and philosophical ideas from pre-Socratic to medieval times. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 20A and PHIL 20AH.</td>
</tr>
<tr>
<td>PHIL 20AH</td>
<td>History of Western Philosophy - Honors</td>
<td>3</td>
<td>Major western philosophers and philosophical ideas from pre-Socratic to medieval times. An honors course is designed to provide an enriched experience. Students may not receive credit for both PHIL 20A and PHIL 20AH.</td>
</tr>
<tr>
<td>PHIL 20B</td>
<td>History of Western Philosophy</td>
<td>3</td>
<td>Major western philosophy and philosophical ideas from the Renaissance to the present.</td>
</tr>
<tr>
<td>PHIL 20BH</td>
<td>History of Western Philosophy - Honors</td>
<td>3</td>
<td>Major western philosophy and philosophical ideas from the Renaissance to the present. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 20B and PHIL 20BH.</td>
</tr>
</tbody>
</table>

### PHOT 101 - Digital Cameras and Composition
3 Units
Detailed study on digital cameras and composition techniques, including their impact on society. (May be taken for option of letter grade or Pass/No Pass)
72 hours lab
Prerequisite: PHOT 10
Survey 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 102 - Basic Digital and Film Photography
3 Units
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
Basic mechanical, optical, and chemical principles of photography, including digital image systems. Laboratory experience involves problem-solving related to camera and image output techniques.

### PHOT 103 - Advanced Professional Photography
4 Units
36 hours lecture
108 hours lab
Prerequisite: PHOT 10
Professional photographic techniques. Includes studio and field assignments related to problems encountered while professionally photographing people and products. Topics include medium and large format film and digital cameras, computer basics for professional photographers and studio lighting. Students must furnish a digital single lens reflex (DSLR) camera. Field trips may be required.

### PHOT 104 - Photographic Alternatives
3 Units
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 105 - History of Photography
3 Units
36 hours lecture
54 hours lab
Prerequisite: PHOT 10
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 21 — Exploring Color Photography 3 Units
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 25 — Digital Capture Workflow 3 Units
36 hours lecture
54 hours lab
Prerequisite: PHOT 11
Advanced application of digital capture and workflow using DSLR medium and large format digital camera systems and software to produce high-quality digital files as a photographer or as a digital photographic technician. Field trips may be required.

PHOT 26 — Photography Portfolio Development 3 Units
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 29 — Studio Business Practices for Commercial Artists 3 Units
54 hours lecture
36 hours lab
Prerequisite: PHOT 11, PHOT 20
Studio business practices for commercial artists. Small business operations, pricing services based on the licensing business model, copyright basics, branding, presentation and promotion, markets and finding clients, and estimating and invoicing.

PHOT 30 — Commercial and Illustrative Photography 3 Units
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 98 — Work Experience in Photography 1 to 3 Units
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 to 225 hours lab
Pre:
Provides students with on-the-job experience in professional photography and related areas in an approved worksite to strengthen and broaden skills in the workplace. A minimum of 60 non-paid 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.

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 10 — Wheelchair Sports 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
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 four times for credit)
(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 four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours activity
Designed to assist students with a disability or limitation develop strength, endurance, flexibility, and physical fitness through weight training. Students who repeat this course will improve their muscular strength and endurance through further instruction and practice.

PE-L 2 — Physical Fitness for the Physically Limited .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
A modified physical fitness conditioning program incorporating cardiovascular training exercises, specifically designed for students with a disability or limitation. Students who repeat this course will improve their fitness level through further instruction and practice.

PE-L 4 — Adaptive Aquatics 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
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-L 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
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-L 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
Designed to improve competence in swimming ability 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.
### 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>PE-A 10</td>
<td>Basketball - Women</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
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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></td>
<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Intended for Women's Intercollegiate Cross Country team candidates to provide 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>.5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
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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></td>
<td>36 to 180 hours activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intended for Men's Intercollegiate Football Team candidates to provide 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>.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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<td></td>
<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<td></td>
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<td></td>
<td>Designed for Men's Intercollegiate Golf Team candidates to provide instruction in the components and training 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 their own golf clubs.</td>
</tr>
<tr>
<td>PE-X 19</td>
<td>Golf - Women</td>
<td>.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>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<td></td>
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<td></td>
<td>Intended for Women's Intercollegiate Golf Team candidates to provide instruction in the components and training 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 their own golf clubs.</td>
</tr>
<tr>
<td>PE-X 24</td>
<td>Soccer - Men</td>
<td>.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>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<td></td>
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<td></td>
<td>Intended for Men's Intercollegiate Soccer Team candidates to provide 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>
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</tbody>
</table>

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### PHYSICAL EDUCATION: ATHLETICS

<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>PE-X 6</td>
<td>Baseball - Men</td>
<td>.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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<td></td>
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<td>36 to 180 hours activity</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Intended for Men's Intercollegiate Baseball Team candidates to provide instruction in the components of training and conditioning related to the sport of baseball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 8</td>
<td>Basketball - Men</td>
<td>.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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<td></td>
<td></td>
<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>PE-A 6C</td>
<td>Swimming - Advanced</td>
<td>.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>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours activity</td>
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<td></td>
<td>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.</td>
</tr>
<tr>
<td>PE-A 14</td>
<td>Water Polo</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
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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>36 to 54 hours activity</td>
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<td></td>
<td>Fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-A 18</td>
<td>Springboard Diving</td>
<td>.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>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>36 to 54 hours activity</td>
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<td>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.</td>
</tr>
<tr>
<td>PE-A 20</td>
<td>Aquatic Fitness</td>
<td>.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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<td></td>
<td>36 to 54 hours activity</td>
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<td>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.</td>
</tr>
<tr>
<td>PE-A 21</td>
<td>Aqua Aerobics</td>
<td>.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></td>
<td></td>
<td>36 to 54 hours activity</td>
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<td>Designed to improve cardiovascular endurance, strength, agility, flexibility and general fitness through the mode of dynamic movement in the water. Appropriate for swimmers and non-swimmers. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-A 24</td>
<td>Aquatic Off-Season Conditioning</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>36 to 54 hours activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A conditioning course for the competitive swimmer to receive individualized training in order to improve performance. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>Number</td>
<td>Course Description</td>
<td>Units</td>
<td>Degree Applicable</td>
</tr>
<tr>
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</tr>
<tr>
<td>PE-X 25</td>
<td>Soccer - Women</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 26</td>
<td>Softball - Women</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 28</td>
<td>Swimming - Men</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 30</td>
<td>Swimming - Women</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 32</td>
<td>Tennis - Men</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 34</td>
<td>Tennis - Women</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 38</td>
<td>Track and Field - Men</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 42</td>
<td>Track and Field - Women</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 44</td>
<td>Volleyball - Men</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 46</td>
<td>Volleyball - Women</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 48</td>
<td>Water Polo - Men</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 49</td>
<td>Water Polo - Women</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 50</td>
<td>Wrestling - Men</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-X 70</td>
<td>Pep Squad</td>
<td>.5 to 3.5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>PE-X 88</td>
<td>Pre-Season Athletics</td>
<td>.5 to 3.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>
### Physical Education: Fitness

**PE-X 99 — Off-Season Athletics .5 to 3.5 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 2A — Body Building - 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  
Basic fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 2B — Body Building - 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  
Advanced strength development and physical conditioning. 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  
Develops components of physical fitness. 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  
Develops components of physical fitness. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 6B — Physical Fitness - 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  
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  
Determines advanced components of physical fitness. Students integrate 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 9 — Conditioning for Sports .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  
A conditioning course for students and athletes to develop muscular strength and endurance, flexibility, core training skills and respiratory fitness. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 10 — Weight Training .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 muscular conditioning program using machines and free weights. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 12 — Fitness and Body 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  
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.

**PE-F 13 — Exercise Dynamics 2 Units**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
108 hours activity  
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.

**PE-F 17 — Fitness Walking .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  
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.

**PE-F 18 — Fitness Fundamentals 2 Units**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
108 hours activity  
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.

**PE-F 19 — Strength Training 2 Units**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
108 hours activity  
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.
PE-F 22 — Total Fitness  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)
108 hours activity
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.

PE-F 25 — Core Performance and Foundation Movement  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)
108 hours lab
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.

PE-F 34 — Cardiorespiratory Training  .5 to 2 Units  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Individualized exercise programs designed to improve cardiorespiratory performance. Students who repeat this course will improve skills through further instruction and practice.

PE-F 36 — Circuit Training  .5 to 2 Units  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Muscular strength and endurance exercise on circuit training equipment. Students who repeat this course will improve skills through further instruction and practice.

PE-F 38 — Aerobics  .5 to 2 Units  Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 to 108 hours activity
Group aerobic exercise to improve cardiorespiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.

PE-F 50 — Physical Skills Preparation for Administration  2 Units  Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
108 hours activity
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.

PE-F 51 — Agility Testing Preparation for Administration  1 Unit  Degree Applicable, CSU
(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  1 Unit  Degree Applicable, CSU
(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 for option of letter grade or Pass/No Pass)
133 hours activity
Prepares the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student acquires 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  .1 Unit  Not Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
2 hours activity
Evaluation 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.mtac.edu prior to enrolling. Repeating this course will allow for renewal of certificate and improvement of technique through further instruction and practice.

PE-F 84A — Badminton - Beginning  .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
Beginning badminton fundamentals and techniques, including singles and doubles play. Students who repeat this course will improve their skills through further instruction and practice.

PE-F 84B — Badminton - Intermediate  .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
Intermediate badminton techniques, including singles and doubles play. 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>Units</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>PE-I 27A</td>
<td>Jeet Kune Do - Beginning</td>
<td>.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>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>PE-I 27B</td>
<td>Jeet Kune Do - Intermediate</td>
<td>.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>36 to 54 hours activity</td>
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<td></td>
<td>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.</td>
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<tr>
<td>PE-I 29</td>
<td>Self Defense/Martial Arts</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>36 to 54 hours activity</td>
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<td></td>
<td>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>
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<tr>
<td>PE-I 30A</td>
<td>Filipino Martial Arts - Beginning</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>36 to 54 hours activity</td>
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<td></td>
<td>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.</td>
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<tr>
<td>PE-I 30B</td>
<td>Filipino Martial Arts - Intermediate</td>
<td>.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>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>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>
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<tr>
<td>PE-I 31A</td>
<td>Jujitsu - Beginning</td>
<td>.5</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>36 to 54 hours activity</td>
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<td></td>
<td>Fundamentals of Brazilian Jujitsu. 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>
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<tr>
<td>PE-I 31B</td>
<td>Jujitsu - Intermediate</td>
<td>.5</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>36 to 54 hours activity</td>
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<td>Intermediate Brazilian Jujitsu. Progressions in positions, break-falls, 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>
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<tr>
<td>PE-I 33</td>
<td>Kickboxing</td>
<td>.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>36 to 54 hours activity</td>
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<td></td>
<td>Presents the martial sport of kickboxing. Includes 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>
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</tr>
<tr>
<td>PE-I 34</td>
<td>Women's Self Defense</td>
<td>.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>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Presents the martial sport of kickboxing. Includes 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>
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<tr>
<td>PE-I 35</td>
<td>Karate</td>
<td>.5</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></td>
<td>36 to 54 hours activity</td>
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<td></td>
<td>Fundamentals of traditional karate. Includes form, technique, history and philosophy. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 37A</td>
<td>Tai Chi Chuan - Beginning</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Fundamentals of tai chi chuan. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 37B</td>
<td>Tai Chi Chuan - Intermediate</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC 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 37C</td>
<td>Tai Chi Chuan - Advanced</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC 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 40A</td>
<td>Tennis - Beginning</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Beginning tennis fundamentals and techniques. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 40B</td>
<td>Tennis - Intermediate</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Intermediate tennis techniques and strategies for the individual who has previous experience and instruction in tennis. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 40C</td>
<td>Tennis - Advanced</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Advanced tennis techniques and strategies for the experienced player. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-I 44</td>
<td>Track and Field</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Basic instruction, conditioning and training for the various track and field events. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 48</td>
<td>Wrestling</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Wrestling skills, fundamentals and match competition. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-I 50A</td>
<td>Yoga</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Yoga instruction with emphasis on yoga postures, breathing techniques, relaxation strategies and philosophy. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 51</td>
<td>Iyengar Yoga</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Fundamentals of iyengar yoga. Basic postures, alignments, strategy, history and philosophy. Students who repeat this course will improve their skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-I 52</td>
<td>Individual Sports</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Individual sports technique enhancement. Includes cardiorespiratory, flexibility, muscle strength and endurance training modes. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 2</td>
<td>Basketball</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Basic skills, fundamentals, rules and strategies for team play in basketball. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-S 10</td>
<td>Soccer</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 12</td>
<td>Baseball</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Basic skills, rules and strategies for team play in baseball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-S 13</td>
<td>Football</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Basic skills, rules and strategies for team play in football. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-S 16</td>
<td>Softball</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Basic skills, rules and strategies for team play in the sport of slowpitch softball. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PE-S 18</td>
<td>Indoor Soccer</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC Indoor soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.</td>
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</tbody>
</table>

**Clusters:**
- PE-S 24A, PE-S 24B, PE-S 24C
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
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<tbody>
<tr>
<td>PE-S 10</td>
<td>Fundamentals of Sports</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>PE-S 14</td>
<td>Principles &amp; Methods of Physical Education</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>PE-S 19</td>
<td>Team Sports</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>PE-S 24A</td>
<td>Volleyball - Beginning</td>
<td>.5 to 1 Unit</td>
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<tr>
<td>PE-S 24B</td>
<td>Volleyball - Intermediate</td>
<td>.5 to 1 Unit</td>
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<td>PE-S 24C</td>
<td>Volleyball - Advanced</td>
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<td>PE 3</td>
<td>First Aid and CPR</td>
<td>3 Units</td>
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<td>PE 5</td>
<td>Advanced First Aid/CPR/Emergency Response</td>
<td>3 Units</td>
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<tr>
<td>PE 10</td>
<td>Fundamentals of Sports</td>
<td>2 Units</td>
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<tr>
<td>PE 13</td>
<td>Sports Officiating</td>
<td>3 Units</td>
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<td>PE 15</td>
<td>Administration of Fitness Programs</td>
<td>2 Units</td>
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<tr>
<td>PE 17</td>
<td>Introduction to Physical Education</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>PE 19</td>
<td>Introduction to Care/Prevention of Activity/Sports-related Injuries</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
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<tr>
<td>PE 20</td>
<td>Safety in Sports</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>PE 24</td>
<td>Kinesiology</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>PE 30</td>
<td>Exercise and Health</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>PE 33</td>
<td>Fitness Assessment and Healthy Lifestyles</td>
<td>.5 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
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<tr>
<td>PE 34</td>
<td>Fitness for Living</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>PE 35</td>
<td>Exercise Techniques</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>PE 38</td>
<td>Physiology of Exercise for Fitness</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>PE 39</td>
<td>Techniques of Fitness Testing</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>PE 40</td>
<td>Techniques of Teaching Cardiovascular Exercise</td>
<td>2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
</tbody>
</table>
Course Descriptions

**PE 41 — Techniques of Teaching Weight Training** 2 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
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 44 — Theory of Coaching** 3 Units  
Degree Applicable  
54 hours lecture  
Designated for coaches at varying levels from youth league to high school varsity. Focuses on coaching issues and problems facing the coach today and includes the philosophy, theory, and principles of developing and maintaining an athletic program.

**PE 48 — Lifeguard Training** 3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
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 — Mt. SAC Fire Academy Physical Ability Entrance Exam** 1 Unit  
Degree Applicable  
(May be taken for Pass/No Pass only)  
9 hours lecture  
9 hours lab  
Physical ability examination specifically designed for candidates seeking admission into the Mt. SAC Fire Academy. Candidates must be approved by the Fire Technology Office prior to registration.

**PE 85 — Fitness Specialist Internship** 1 Unit  
Degree Applicable  
(May be taken four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
75 hours lab  
Provides fitness specialist students with actual on-the-job skill development in fitness testing, analysis and prescription. 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 Fitness Certificate faculty advisor. Students who repeat this course will improve skills through further instruction and practice.

**PE 92 — Work Experience - Athletic Training** 2 Units  
Degree Applicable  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
160 hours lab  
Provides Athletic Trainer Aides and physical education students with actual on-the-job experience in an approved worksite 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 Athletic Trainer faculty and staff. Students who repeat this course will improve skills through further instruction and practice.

**PHSC 7L — Physical Science Laboratory** 1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Corequisite: PHSC 7  
Laboratory topics will parallel the course content of Physical Science lecture.

**PHTH 81 — Physical Therapy Aide** 4 Units  
Degree Applicable  
54 hours lecture  
54 hours lab  
Advisory: ANAT 50 or equivalent  
Role and skills of physical therapy aide. Procedures commonly performed by aides will be explained, demonstrated and practiced; includes terminology and interpersonal skills.

**PHYS 1 — Physics** 4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: Eligibility for MATH 71  
Discovery of basic concepts of physics by working through guided activities in a workshop style. Topics include light and geometrical optics, electricity and DC circuits (with capacitors,) linear and rotational motion, forces, momentum, energy, harmonic motion and waves.

**PHYS 2AG — General Physics** 4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
54 hours lab  
Prerequisite: MATH 150  
The basic principles of physics. Includes theory, applications, laboratory, and problem solving in mechanics, heat, fluids, and wave motion.
### PHYS 2AG — General Physics 4 Units
- 54 hours lecture
- 54 hours lab
- Prerequisite: PHYS 2AG or equivalent
- A continuation of Physics 2AG. Includes electricity and magnetism (including DC and AC circuits), geometrical and physical optics, relativity, quantum physics, atomic and nuclear physics. Laboratory includes use of computers to analyze data and simulate electric circuits.

### PHYS 4A — Engineering Physics 5 Units
- 72 hours lecture
- 54 hours lab
- Prerequisite: PHYS 2AG
- Corequisite: MATH 181 (may have been taken previously)
- 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.

### COURSE DESCRIPTIONS

#### PHYS 4B — Engineering Physics 5 Units
- 72 hours lecture
- 54 hours lab
- Prerequisite: PHYS 4A
- Corequisite: MATH 280 (may have been taken previously)
- 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.

#### PHYS 4C — Engineering Physics 5 Units
- 72 hours lecture
- 54 hours lab
- Prerequisite: PHYS 4B
- 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.

#### PHYS 99 — Special Projects in Physics 2 Units
- (May be taken four times for credit)
- 36 hours lecture
- Prerequisite: PHYS 1 or PHYS 2AG or PHYS 4A (may have been taken previously)
- In order 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 must have instructor’s authorization before enrolling in this class. Students who repeat this course will improve skills by further instruction and practice.

### POLITICAL SCIENCE

#### POLI 1 — Political Science 3 Units
- 54 hours lecture
- 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.

#### POLI 1H — Political Science - Honors 3 Units
- 54 hours lecture
- Prerequisite: Acceptance into the Honors Program
- 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.

#### POLI 2 — Political Science 3 Units
- 54 hours lecture
- Prerequisite: POLI 1 or POLI 1H
- Advisory: Eligibility for ENGL 1A
- Comparative study of constitutional principles, governmental institutions, political processes, and ideologies in selected countries.

#### POLI 5 — Political Theory I - Ancient to Modern 3 Units
- 54 hours lecture
- Prerequisite: POLI 1 or POLI 1H
- Advisory: Eligibility for ENGL 1A
- Ancient to modern (mid-19th century) theories of political institutions, social change and social dynamics.

#### POLI 7 — Political Theory II - Early Modern to Contemporary 3 Units
- 54 hours lecture
- Prerequisite: POLI 5
- Major political philosophers and theories from the late nineteenth century to the present. Intended to prepare students majoring in political science for further study in the discipline by providing adequate background preparation in political philosophy.

#### POLI 9 — Introduction to International Relations 3 Units
- 54 hours lecture
- Advisory: Eligibility for ENGL 1A
- 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.

#### POLI 10 — Environmental Politics 3 Units
- 54 hours lecture
- Prerequisite: POLI 1 or POLI 1H
- Advisory: Eligibility for ENGL 1A
- Global environmental problems including an analysis of political theories and comparative policies in the emerging field of environmental politics.

#### POLI 25 — Politics of the Mexican American 3 Units
- 54 hours lecture
- Advisory: Eligibility for ENGL 68
- 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.

#### POLI 30 — California State and Local Government 3 Units
- 54 hours lecture
- Advisory: Eligibility for ENGL 68
- Surveys the forces shaping California government and analyzes the operation of governmental institutions within California and the political and fiscal challenges facing California.
### Course Descriptions

#### PSYC 1A — Introduction to Psychology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
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.

#### PSYC 1AH — Introduction to Psychology - Honors 3 Units
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, life-span development, gender, sexuality, stress, health, motivation, emotions, social psychology, abnormality, treatment and social and diversity issues. 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
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
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, UC
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 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
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 emphasizing research design, scales of measurement, distributions, graphing, descriptive statistics, measures of central tendency, measures of variability, t-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 15 — Introduction to Child Psychology 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Examines the psychology of the child from conception through adolescence. Emphasis on physical, cognitive, and psychosocial development as it pertains to the child's psychological experiences. Includes psychological disorders and therapies specific to children and adolescents. This course does not fulfill Title 22 requirement for child development majors.

#### PSYC 17 — Introduction to Human Services 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: 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-exploration 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
Advisory: PSYC 1A and 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
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 09 — Special Projects in Psychology
(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.

R-TV 02 — On-Air Personality Development
3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)
Developing a broadcast voice, style and understanding of the business for all areas of the industry, including disc jockey, newscaster and voice over artist. Students will also develop an understanding 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
Degree Applicable
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
Degree Applicable
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
Degree Applicable
54 hours lecture
Corequisite: R-TV 01, R-TV 05, and R-TV 11A (May have been taken previously.)
Techniques used to research and cover a variety of news events including working with police and other emergency personnel, interviewing techniques, and writing news copy. Emphasis will be placed on legal and ethical issues concerning news coverage.

R-TV 05 — Radio-TV Newswriting
3 Units
Degree Applicable
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 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
Degree Applicable
27 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
History and development of techniques involved in radio and television traffic reporting through lecture and hands-on practice. Interpretation and reading of police codes as they relate to traffic, accidents, and emergency situations including broadcast rules and liabilities as they apply to traffic reporting. Emphasis on both production and delivery of anchored and airborne reports.

R-TV 07 — Beginning Commercial Voice-Overs
3 Units
Degree Applicable
54 hours lecture
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 07A — Beginning Commercial Voice-Overs
3 Units
Degree Applicable
36 hours lecture
54 hours lab
Prerequisite: R-TV 07A
Instruction in advanced techniques used in the art of voicing for radio and TV commercials, animation and narration. Further development of audition and recording session skills.

R-TV 08 — Broadcast Management and Programming
3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have be taken previously)
Overview of various techniques of programming a radio station, including various formats of music, news, talk and sports. Role of management at a station including budgeting, unions, ratings and Federal Communications Commission (FCC) responsibilities.
Course Descriptions

R-TV 11A — Beginning Radio Production  3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
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 voice and audio appeals.

R-TV 11B — Advanced Radio Production  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: R-TV 11A
Techniques in non-linear recording, editing and mixing using Pro Tools technology as these skills apply to a variety of applications in the broadcasting industry. Develop mastery of the concepts and skills required to work in a professional radio studio environment.

R-TV 12 — Commercial Copywriting  3 Units
Degree Applicable
54 hours lecture
Advisory: R-TV 01
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as D-J, news anchor/reporter, sports reporter, commercial voice-over artist, production director, writer, producer and director.

R-TV 13 — Broadcast Business Practices  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (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 14 — Media Aesthetics  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: ENGL 67
Video production techniques emphasizing narrative storytelling, film-style aesthetics and production.

R-TV 15 — Broadcast Business Practices  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
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 16 — TV News Production  3 Units
Degree Applicable, CSU
36 hours lecture
Corequisite: R-TV 15
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 voice and audio appeals.

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)
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as D-J, news anchor/reporter, sports reporter, commercial voice-over artist, production director, writer, producer and director.

R-TV 18 — Writing for Television and Film  3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: ENGL 68
Characterization, visualization, structure and form in various types of writing for television and motion picture production.

R-TV 19A — Beginning Video 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 14
Video production using studio, remote multicamera, and film-style techniques. Includes instruction in lighting, audio recording for motion, basic directing and producing, editing software, and production of short narratives.

R-TV 19B — Advanced Video 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 18 and R-TV 19A
Video production techniques emphasizing narrative storytelling, film-style aesthetics and production.

R-TV 20 — Television News Production  3 Units
Degree Applicable, CSU
36 hours lecture
54 hours lab
Prerequisite: R-TV 05 or R-TV 19A
TV newsCast production using writing, announcing, production, equipment, direction, graphics, and editing skills both in and out of the studio.

R-TV 21 — Remote Television Production and Engineering  3 Units
Degree Applicable, CSU
36 hours lecture
54 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 television.

R-TV 23 — Reality Show Production  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 19A
Types and production of Reality Show television programs. Authoring and pitching of reality show concepts. Instruction in specific equipment skills in lighting, wireless multicamera shooting, editing and related skills. Includes production of a reality show.

R-TV 24 — TV Writing for Non-Two  3 Units
Degree Applicable, CSU
36 hours lecture
Advisory: R-TV 01 or R-TV 30
Overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as a non-traditional career such as public relations, marketing, sales, advertising, and promotion.

R-TV 25 — Internet Radio and Podcasting  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 or R-TV 11A
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as technical writing, creative writing, and digital media.

R-TV 26 — Current Issues in Entertainment Law  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 and R-TV 11A
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as technical writing, creative writing, and digital media.

R-TV 27 — Radio- TV Internet Content  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 or R-TV 11A
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as technical writing, creative writing, and digital media.

R-TV 28 — Digital Audio Production  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 or R-TV 11A
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as technical writing, creative writing, and digital media.

R-TV 29 — Digital Audio Production  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 or R-TV 11A
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as technical writing, creative writing, and digital media.

R-TV 30 — Introduction to Careers in Entertainment  2 Units
Degree Applicable
36 hours lecture
An overview of broadcasting as a potential career. Examines the skills and training needed to work in radio, television and film in such areas as technical writing, creative writing, and digital media.

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 disc jockeys in broadcasting history.

R-TV 32 — Radio - TV Internet Applications  3 Units
Degree Applicable
54 hours lecture
Creating and managing material on radio, TV and movie websites such as cross-promoting on-air content and converting audio and video.

R-TV 33 — Radio Show Producer Techniques and Procedures  3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (May have been taken previously)
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.
<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTIONS</th>
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<tbody>
<tr>
<td>R-TV 34 — On-Camera Performance</td>
<td>1.5 Units</td>
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<tr>
<td>27 hours lecture</td>
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<tr>
<td>Advisory: R-TV 01</td>
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<tr>
<td>On-camera techniques used in news and sports anchoring and reporting including make-up, hair, wardrobe and overall presentation.</td>
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<thead>
<tr>
<th>R-TV 96 — Campus Radio Station Lab</th>
<th>1 to 2 Units</th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td>(May be taken four times for credit)</td>
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<tr>
<td>54 to 108 hours lab</td>
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<tr>
<td>Prerequisite: R-TV 01</td>
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<tr>
<td>Advisory: R-TV 02 and R-TV 11A</td>
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<td>Regular and continuing experience in the operation of the College radio stations. Students may work in on-air or behind-the-scenes roles. Students who repeat this course will improve skills through further instruction and practice.</td>
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<thead>
<tr>
<th>R-TV 97A — Radio/Entertainment Industry Seminar</th>
<th>1 Unit</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>(May be taken four times for credit)</td>
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<tr>
<td>18 hours lecture</td>
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<tr>
<td>Prerequisite: R-TV 01 and any other three R-TV units</td>
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<tr>
<td>Corequisite: R-TV 97B</td>
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<tr>
<td>A capstone class for students preparing for a career 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.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R-TV 97B — Radio/Entertainment Industry Internship</th>
<th>1 Unit</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>75 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: R-TV 01 and any other three R-TV units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: R-TV 97A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides the student with on-the-job 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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R-TV 99 — Radio/TV Special Projects</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: Completion of six R-TV units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R-TV 100 — Work Experience in Film and Television</th>
<th>1 to 3 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>75 to 225 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Completion of 12 units of R-TV courses from among the following: R-TV 1, 14, 18, 19A, 19B, 20, 21, 22, 23, taken at Mt. San Antonio College. Compliance with work experience regulations as designated in the college catalog. Provides students with on-the-job experience in the film or TV industry, 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. Students who repeat this course will improve skills through further experience.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R-TV 105 — Work Experience in Film and Television</th>
<th>1.5 Units</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>140 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: R-TV 01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: RAD 63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation protection, darkroom technique, general principles of x-ray production and production of the radiograph in the hospital environment. Includes professional ethics and the legal considerations of health care.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R-TV 106 — Work Experience in Film and Television</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>263 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: ANAT 10A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: RAD 61A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides students with on-the-job experience in the film or TV industry, 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. Students who repeat this course will improve skills through further experience.</td>
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<table>
<thead>
<tr>
<th>RAD 30 — Radiographic Pathology</th>
<th>1.5 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: RAD 63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: RAD 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concepts of disease and pathological processes demonstrated in diagnostic radiography; etiology, diagnosis, and prognosis of systemic disease processes.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>RAD 31 — Fluoroscopy</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: RAD 55B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: RAD 64 and RAD 65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components and characteristics of fluoroscopic systems including regulatory requirements for operation. Includes quality control and quality assurance systems relative to radiology.</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>RAD 32 — Digital Imaging in Radiology</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: RAD 52A and RAD 61A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: RAD 52B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval discussed. Guidelines for selecting exposure factors and evaluating images within a digital system assist students to bridge between film-based and digital imaging systems. Principles of digital system quality assurance and maintenance presented.</td>
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</table>

<table>
<thead>
<tr>
<th>RAD 50 — Radiologic Technology</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: Admission to the Radiologic Technology Program and CHEM 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides students with on-the-job experience in the film or TV industry, 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. Students who repeat this course will improve skills through further experience.</td>
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</table>

<table>
<thead>
<tr>
<th>RAD 52A — Techniques of Radiologic Technology</th>
<th>5 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>263 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: ANAT 10A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: RAD 61A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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).</td>
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</table>

<table>
<thead>
<tr>
<th>RAD 52B — Techniques of Radiologic Technology</th>
<th>2.5 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>140 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: RAD 52A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>RAD 53 — Techniques of Radiologic Technology</th>
<th>5 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>263 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: RAD 52B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisite: RAD 62A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
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</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Type</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 54</td>
<td>Techniques of Radiologic Technology</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>167 hours lab&lt;br&gt;Prerequisite: RAD 62A&lt;br&gt;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.</td>
</tr>
<tr>
<td>RAD 55A</td>
<td>Techniques of Radiologic Technology</td>
<td>7.5 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>383 hours lab&lt;br&gt;Concurrent: RAD 63&lt;br&gt;Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on cystograms, urethorgrams, foreign body localization, tomography, and venography.</td>
</tr>
<tr>
<td>RAD 55B</td>
<td>Techniques of Radiologic Technology</td>
<td>2.5 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>140 hours lab&lt;br&gt;Prerequisite: RAD 63&lt;br&gt;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.</td>
</tr>
<tr>
<td>RAD 56</td>
<td>Techniques of Radiologic Technology</td>
<td>7 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>380 hours lab&lt;br&gt;Prerequisite: RAD 64&lt;br&gt;Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on basic vascular procedures (angiograms), mammograms, tube placement, myelograms, arthograms, and hysterosalpingograms.</td>
</tr>
<tr>
<td>RAD 57</td>
<td>Techniques of Radiologic Technology</td>
<td>4.5 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>239 hours lab&lt;br&gt;Prerequisite: RAD 64&lt;br&gt;Practical experience as a functioning member of an affiliated hospital under the guidance of clinical personnel and college instructors. Includes exploration of pararadiological imaging modalities and venipuncture instruction.</td>
</tr>
<tr>
<td>RAD 58</td>
<td>Theory of Radiologic Technology</td>
<td>4 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>72 hours lecture&lt;br&gt;Prerequisite: RAD 50, MEDI 90&lt;br&gt;Corequisite: RAD 62A, RAD 62B, and RAD 62C&lt;br&gt;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.</td>
</tr>
<tr>
<td>RAD 59</td>
<td>Radiographic Positioning</td>
<td>3 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54 hours lecture&lt;br&gt;Prerequisite: RAD 59, RAD 91, ANAT 10A, and MEDI 90&lt;br&gt;Corequisite: RAD 61A, RAD 61C, and RAD 52A&lt;br&gt;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.</td>
</tr>
<tr>
<td>RAD 60</td>
<td>Radiologic Technology Seminar</td>
<td>1.5 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>18 hours lecture&lt;br&gt;Prerequisite: RAD 55A&lt;br&gt;Corequisite: RAD 55A&lt;br&gt;Continued experience in a hospital setting under guidance 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.</td>
</tr>
<tr>
<td>RAD 61</td>
<td>Radiologic Technology Seminar</td>
<td>4 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>18 hours lecture&lt;br&gt;Prerequisite: RAD 61A, RAD 61B, and RAD 61C&lt;br&gt;Corequisite: RAD 61A&lt;br&gt;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.</td>
</tr>
<tr>
<td>RAD 62</td>
<td>Radiologic Technology Seminar</td>
<td>4 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>18 hours lecture&lt;br&gt;Prerequisite: RAD 50, MEDI 90&lt;br&gt;Corequisite: RAD 61A, RAD 61C, and RAD 52A&lt;br&gt;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.</td>
</tr>
<tr>
<td>RAD 63</td>
<td>Radiologic Technology Seminar</td>
<td>1.5 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>18 hours lecture&lt;br&gt;Prerequisite: RAD 63&lt;br&gt;Corequisite: RAD 31 and RAD 56&lt;br&gt;Analysis of technical performance when producing radiographs of the chest, upper and lower extremities, and abdomen. Documentation of radiographic exposure techniques.</td>
</tr>
<tr>
<td>RAD 64</td>
<td>Theory of Radiologic Technology</td>
<td>4 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>47 hours lab&lt;br&gt;Prerequisite: RAD 50&lt;br&gt;Corequisite: RAD 50&lt;br&gt;Nursing techniques and procedures; provides students with knowledge of proper patient care and management; includes patient transfer, disinfection and/or sterilization, isolation techniques, monitoring vital signs, common emergency situations and monitoring medical equipment.</td>
</tr>
</tbody>
</table>

### Reading

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Type</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ 70</td>
<td>Improving Reading Comprehension</td>
<td>3 Units</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54 hours lecture&lt;br&gt;Prerequisite: Satisfactory score on appropriate placement test&lt;br&gt;Introduction to reading, comprehension, and vocabulary strategies using narrative text. Introduction to self-awareness of reading capabilities.</td>
</tr>
<tr>
<td>READ 80</td>
<td>Developing Reading Comprehension</td>
<td>3 Units</td>
<td>Not Degree Applicable</td>
<td>(May be taken for Pass/No Pass only)</td>
<td>54 hours lecture&lt;br&gt;Prerequisite: READ 70 or satisfactory score on reading placement test&lt;br&gt;Further development of reading comprehension and vocabulary strategies including self-awareness of reading capabilities.</td>
</tr>
</tbody>
</table>
the application of mechanical ventilation in the clinical setting.

Methods of administration of therapy and application of specialized equipment in the acute care setting and basic application and skills development in respiratory pharmacology, bronchoscopy, and blood drawing and analysis.

Basic principles of respiratory therapy equipment. Emphasis placed on methods of administration of therapy and application of specialized equipment in the acute care setting and the application of mechanical ventilation in the clinical setting.

Basic principles of respiratory therapy equipment. Emphasis placed on methods of administration of therapy and application of specialized equipment in the acute care setting and the application of mechanical ventilation in the clinical setting.

Anatomy and physiology of the cardiopulmonary, neurological and renal systems emphasizing clinical application of physiological concepts.

Anatomic alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.

Critical practice in the hospital setting. Application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric intensive care patients. A six-week rotation is done in the neonatal intensive care unit. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first three semesters of the Respiratory Therapy Program.

Critical practice in intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients in a hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first three semesters of the Respiratory Therapy Program. Instruction in the application of therapeutic modalities and diagnostic procedures performed in the general management and treatment of adult and pediatric patients requiring respiratory care are introduced.


Critical practice in the hospital setting. Application of skills in bronchoscopy, blood drawing and analysis, chest drainage, microbiology for respiratory care, and intermittent positive pressure breathing (IPPB), and blood gas data analysis.

Critical practice in intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients in a hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first three semesters of the Respiratory Therapy Program. Instruction in the application of therapeutic modalities and diagnostic procedures performed in the general management and treatment of adult and pediatric patients requiring respiratory care are introduced.


Critical practice in intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients in a hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first three semesters of the Respiratory Therapy Program. Instruction in the application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric patients requiring respiratory care are done. Emphasis of intensive care and mechanical ventilator procedures are introduced.

### COURSE DESCRIPTIONS

<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>RESD 59</td>
<td>Respiratory Therapeutic Modalities</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>RESD 60</td>
<td>Comprehensive Pulmonary Assessment</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>RESD 61</td>
<td>Current Issues in Respiratory Care</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
<td></td>
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<tr>
<td>SL 1</td>
<td>Service Learning/Seminar for Health Occupations</td>
<td>6</td>
<td>Degree Applicable, CSU</td>
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</tr>
<tr>
<td>SL 2</td>
<td>Linked Service Learning</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>SL 3</td>
<td>Service Learning/Seminar in Community Involvement</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>SL 4</td>
<td>Service Learning and Community Involvement</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>SL 99</td>
<td>Special Projects in Service Learning</td>
<td>1</td>
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<tr>
<td>SIGN 101</td>
<td>American Sign Language 1</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>SIGN 102</td>
<td>American Sign Language 2</td>
<td>4</td>
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<tr>
<td>SIGN 103</td>
<td>American Sign Language 3</td>
<td>4</td>
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<td>SIGN 104</td>
<td>American Sign Language 4</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>SIGN 105</td>
<td>American Sign Language 5</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td>SIGN 108</td>
<td>Fingerspelling</td>
<td>2</td>
<td>Degree Applicable</td>
<td></td>
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<tr>
<td>SIGN 201</td>
<td>Deaf Perspectives</td>
<td>3</td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>SIGN 202</td>
<td>American Deaf Culture</td>
<td>3</td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>SIGN 210</td>
<td>American Sign Language Structure</td>
<td>3</td>
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### SERVICE LEARNING

<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>SL 1</td>
<td>Service Learning/Seminar for Health Occupations</td>
<td>6</td>
<td>Degree Applicable, CSU</td>
<td></td>
</tr>
<tr>
<td>SL 2</td>
<td>Linked Service Learning</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
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</tbody>
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### SIGN LANGUAGE, INTERPRETING

<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>SIGN 101</td>
<td>American Sign Language 1</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
</tr>
<tr>
<td>SIGN 102</td>
<td>American Sign Language 2</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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</tbody>
</table>

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### Additional Information

- **RESD 59**
  - 54 hours lecture
  - Corequisite: RESD 56C and RESD 59
  - Emphasizes respiratory therapists.

- **RESD 60**
  - 36 hours lecture
  - Corequisite: RESD 51B and RESD 53
  - Techniques of pulmonary assessment including history taking, clinical laboratory data, pulmonary function testing data, chest X-rays, physician exam findings, arterial blood gas data, hemodynamic monitoring data, exhaled gas monitoring data, nutrition, and synopsis of findings; extensive practice in collecting and recording this data.

- **RESD 61**
  - 54 hours lecture
  - Corequisite: RESD 56D and RESD 59
  - 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.

- **SL 3**
  - 18 hours lecture
  - Corequisite: RESD 51B and RESD 53
  - 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.

- **SL 4**
  - 9 hours lecture
  - Corequisite: RESD 56C
  - 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.

- **SIGN 101**
  - 72 hours lecture
  - Prerequisite: SIGN 81 or SIGN 102 or equivalent fluency
  - Further study of American Sign Language focusing on developing comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.

- **SIGN 104**
  - 72 hours lecture
  - Prerequisite: SIGN 82A or SIGN 103 or equivalent fluency
  - Emphasis on expressive/conversational skills in American Sign Language along with continued focus on grammatical and cultural features.

- **SIGN 105**
  - 72 hours lecture
  - Prerequisite: SIGN 82B or SIGN 104
  - 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.

- **SIGN 108**
  - 36 hours lecture
  - Prerequisite: SIGN 81 or SIGN 102 or equivalent fluency
  - Emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.

- **SIGN 201**
  - 54 hours lecture
  - 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.

- **SIGN 202**
  - 54 hours lecture
  - American Deaf cultural norms, values, mores and institutions.

- **SIGN 210**
  - 54 hours lecture
  - Prerequisite: SIGN 103
  - Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.
SIGN 220 — Translation: American Sign Language/English 3 Units
54 hours lecture
Degree Applicable, CSU
Prerequisite: SIGN 104
Corerequisite: SIGN 210 (May have been taken previously.)
American Sign Language and English translation by comparing texts in both languages.

SIGN 223 — Principles of Interpreting 3 Units
54 hours lecture
Degree Applicable, CSU
Prerequisite: SIGN 102, Eligibility for ENGL 1 A
Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter's role and ethical standards.

SIGN 225 — Ethical Decision Making for Interpreters 2 Units
36 hours lecture
Degree Applicable
Prerequisite: SIGN 223
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.

SIGN 227 — Cognitive Processing for Interpreters 4 Units
54 hours lecture
May be taken for option of letter grade or Pass/No Pass
Prerequisite: ENGL 1 A and SIGN 104 and SIGN 223, or ENGL 1 A and SIGN 104 and SIGN 230
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, cluing, and listening exercises.

SIGN 231 — Interpreting 4 Units
54 hours lecture
Degree Applicable
Prerequisite: SPCH 1 A and SIGN 227
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.

SIGN 232 — Advanced Interpreting 4 Units
54 hours lecture
Degree Applicable
May be taken for option of letter grade or Pass/No Pass
Prerequisite: SIGN 231
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.

SIGN 239 — Practicum 1 Unit
54 hours lab
Degree Applicable
Prerequisite: SIGN 88 B or SIGN 232
Develops and refines interpreting skills in supervised interpreting situations.

SIGN 240 — Vocabulary Building for Interpreters 2 Units
36 hours lecture
Degree Applicable, CSU
May be taken for Pass/No Pass only
Prerequisite: SIGN 104
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.

SIGN 250 — Interpreting with Classifiers 1.5 Units
18 hours lecture
Degree Applicable
Prerequisite: SIGN 104 and SIGN 210
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.

SIGN 260 — Video Interpreting 1.5 Units
18 hours lecture
Degree Applicable
Prerequisite: SIGN 231
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.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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<td>SOC 4</td>
<td>Introduction to Gerontology</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Characteristics, contributions, and problems of older persons. Emphasizes the theoretical perspectives on the process of aging. Topics include gender, race, ethnicity, religion, stratification, and health care. Attention is given to gerontology as an academic discipline and a field of practice.</td>
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<tr>
<td>SOC 5</td>
<td>Introduction to Criminology</td>
<td>3</td>
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<td>54 hours lecture</td>
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<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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<td>SOC 5H</td>
<td>Introduction to Criminology - Honors</td>
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<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Acceptance into the Honors Program</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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<td>SOC 7</td>
<td>Sociology of Religion</td>
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<td>54 hours lecture</td>
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<td></td>
<td>An analysis of religion as a social institution. Attention will focus on the influence that religion has on American society, religious movements, norms, symbols and the social manifestations of religious observable facts.</td>
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<td>SOC 14</td>
<td>Marriage and the Family</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></td>
<td>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.</td>
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<td></td>
<td>A socio-cultural study of Asian Americans that includes race, class and gender. Explores the contemporary experiences of peoples originating in the Pacific Islands, Southeast Asia, South Asia, and East Asia; emphasizes social structure, social change, and offers a theoretical framework for analysis.</td>
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<td>Course Code</td>
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<td>Degree Applicability</td>
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<td>SPAN 3</td>
<td>Intermediate Spanish</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>72 hours lecture</td>
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<td></td>
<td><strong>Prerequisite:</strong> SPAN 2 or equivalent</td>
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<td></td>
<td>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.</td>
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<td>SPAN 4</td>
<td>Continuing Intermediate Spanish</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>72 hours lecture</td>
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<td><strong>Prerequisite:</strong> SPAN 3 or equivalent</td>
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<td></td>
<td>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.</td>
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<td>SPAN 5</td>
<td>Advanced Spanish</td>
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<td>72 hours lecture</td>
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<td><strong>Prerequisite:</strong> SPAN 4 or equivalent</td>
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<td></td>
<td>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.</td>
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<td>SPAN 6</td>
<td>Continuing Advanced Spanish</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>72 hours lecture</td>
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<td></td>
<td><strong>Prerequisite:</strong> SPAN 5 or equivalent</td>
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<td></td>
<td>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.</td>
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<td>SPAN 11</td>
<td>Spanish for the Spanish Speaking</td>
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<td></td>
<td>72 hours lecture</td>
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<td>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.</td>
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<td>SPAN 12</td>
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<td>72 hours lecture</td>
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<td><strong>Prerequisite:</strong> SPAN 11 or equivalent</td>
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<td>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.</td>
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<td>SPAN 13</td>
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<td><strong>Prerequisite:</strong> SPAN 4 or equivalent</td>
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<td></td>
<td>Introduction to the literatures of Mexico, other Spanish-American countries and Spain. All reading and lectures are in Spanish.</td>
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<td>SPAN 25</td>
<td>— Literature</td>
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<td></td>
<td>54 hours lecture</td>
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<td><strong>Prerequisite:</strong> SPAN 4 or equivalent</td>
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<td></td>
<td>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.</td>
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<td>SPAN 53</td>
<td>— Conversational Spanish</td>
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<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td><strong>Prerequisite:</strong> SPAN 2 or equivalent</td>
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<tr>
<td></td>
<td>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.</td>
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<td>SPAN 54</td>
<td>— Continuing Conversational Spanish</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td><strong>Prerequisite:</strong> SPAN 53</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>

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**SPCH 1A — Public Speaking 4 Units**

72 hours lecture

**Prerequisite:** Eligibility for ENGL 68

Study and apply rhetorical principles to research and analyze topics, write basic and advanced speech 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 4 Units**

72 hours lecture

**Prerequisite:** Acceptance into the Honors Program

Study and apply rhetorical principles to research and analyze topics, write basic and advanced speech 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**

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 2 — Fundamentals of Communication 4 Units**

Degree Applicable, CSU, UC

72 hours lecture

**Corequisite:** ENGL 1A or ENGL 1AH (May have been taken previously)

Fundamental theories and competencies in interpersonal, small group, public, and intercultural communication. Oral presentations are required.

**SPCH 3 — Voice and Diction 3 Units**

Degree Applicable, CSU, UC

54 hours lecture

**Prerequisite:** SPCH 1A or SPCH 1AH

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.
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites and Description</th>
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<tr>
<td>SPCH 4</td>
<td>Performance of Literature</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
<td>SPCH 6</td>
<td>Group Communication</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<tr>
<td>SPCH 7</td>
<td>Intercultural Communication</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>SPCH 7H</td>
<td>Intercultural Communication Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
<td>Prerequisite: Admission into the Honors Program</td>
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<td>SPCH 8</td>
<td>Professional and Organizational Speaking</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>SPCH 8H</td>
<td>Professional and Organizational Speaking - Honors</td>
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<td>SPCH 10</td>
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<td>SPCH 15</td>
<td>Forensics: Fundamentals of Contest</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<td>SPCH 16</td>
<td>Forensics: Individual Event Team</td>
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<td>SPCH 17</td>
<td>Forensics: Debate Team</td>
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<td>SPCH 18</td>
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<td>SPCH 20</td>
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<td>SPCH 20H</td>
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<td>SPCH 26</td>
<td>Interpersonal Communication</td>
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### STUDY TECHNIQUES

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<tr>
<th>COURSE</th>
<th>TITLE</th>
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<th>GEN ED</th>
<th>DEGREE APP</th>
<th>COMPETENCIES</th>
<th>PREREQUISITES</th>
<th>ARC ALEKS</th>
<th>COURSE DESCRIPTION</th>
<th>ONLINE</th>
<th>LOCATION</th>
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<tr>
<td>STDY 80</td>
<td>Studying and Learning: Foundations for Success</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>STDY 85A</td>
<td>Test-Taking and Stress Management</td>
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<td>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.</td>
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<td>STDY 85B</td>
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<td>STDY 85C</td>
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<td>STDY 85F</td>
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<td>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.</td>
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<td>SURV 1A</td>
<td>Surveying</td>
<td>3</td>
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<td>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.</td>
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<tr>
<td>SURV 1B</td>
<td>Surveying</td>
<td>3</td>
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<td>Land surveying including coordinate geometry, missing data, construction surveying, volumes, property surveying, control surveying, California Coordinate System, and horizontal and vertical curves. Introduces photogrammetric methods, 3-D laser scanning, Global Positioning System (GPS), Geographic Information System (GIS), mapping project, method of least squares, and land survey descriptions. Field trips are required.</td>
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<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>1</td>
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<td>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.</td>
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### TECHNOLOGY-RELATED COURSES

<table>
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<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>UNITS</th>
<th>GEN ED</th>
<th>DEGREE APP</th>
<th>COMPETENCIES</th>
<th>PREREQUISITES</th>
<th>ARC ALEKS</th>
<th>COURSE DESCRIPTION</th>
<th>ONLINE</th>
<th>LOCATION</th>
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<tr>
<td>TECH 60</td>
<td>Customer Relations for the Technician</td>
<td>1</td>
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COURSE DESCRIPTIONS

THEATER ARTS

- 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
  Dramatic literature and 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 DRMA 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)
  (May be taken for option of letter grade or Pass/No Pass)
  108 hours lab
  Planning, preparation, and presentation of college-sponsored dramatic presentations. Emphasis on acting with some technical theater assignments. Students who repeat this course will improve skills through further instruction and practice. Attendance at performances is required.

- THTR 16 — Theatrical Make-Up 2.5 Units Degree Applicable, CSU, UC
  36 hours lecture
  36 hours lab
  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.

- THTR 17 — Acting for the Camera 3 Units Degree Applicable, CSU, UC
  54 hours lecture
  Prerequisite: THTR 11
  Study in performance for TV and films. Background, methodology and techniques of acting for the camera. Includes TV equipment and how to make it work for the TV actor; study of image, type, and character, evaluation and use of scripts and monologues with practical exercises and on-camera scenes in various styles such as TV drama, sit-coms, commercials. Assists students prepare for an occupation in the performing areas of television and film.

- THTR 18 — Technical Theater Practicum 1 Unit Degree Applicable, CSU, UC
  (May be taken for option of letter grade or Pass/No Pass)
  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 19 — Theatrical Costuming 3 Units Degree Applicable, CSU, UC
  (May be taken two times for credit)
  36 hours lecture
  54 hours lab
  Theatrical costuming 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. Students who repeat this course will improve skills through further instruction and practice.

- THTR 25 — Theatrical Playwriting 3 Units Degree Applicable, CSU
  54 hours lecture
  Advisory: Eligibility for ENGL 1A
  Playwriting for the stage. Students will create and critique their own plays, as well as study and critique plays from established authors and productions. Includes basics of linear, episodic, ‘A’-’B’ and ritual structures.

- THTR 60 — Children’s Theatre 2 Units Degree Applicable, CSU
  (May be taken four times for credit)
  (May be taken for option of letter grade or Pass/No Pass)
  108 hours lab
  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 for option of letter grade or Pass/No Pass)
  54 hours lab
  Prerequisite: THTR 11
  Advanced acting workshop that focuses on the development and refinement of two-person acting scenes.

- THTR 99 — Special Projects in Theatre 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 hours lecture
  To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines in 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.

TRANSPORTATION

- TRAN 17 — Air Transportation 3 Units Degree Applicable, CSU
  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.
TUTR 10A — Introduction to Tutoring 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in English language with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

TUTR 10B — Tutoring in Mathematics 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in mathematics with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10C — Tutoring as a Supplemental Instructor 1 Unit
Degree Applicable
18 hours lecture
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 Reading 1 Unit
Not Degree Applicable
18 hours lecture
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

TUTR 10E — Tutoring in the English Language 1 Unit
Not Degree Applicable
18 hours lecture
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 10F — Tutoring in the Social Sciences 1 Unit
Degree Applicable
18 hours lecture
Tutoring in the social sciences with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10G — Tutoring in the Sciences 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in the sciences with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10H — Tutoring in the Technical, Business, and Professional Disciplines 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in the technical, business, and professional disciplines with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10I — Tutoring in Tutoring 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in tutoring with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

TUTR 10J — Tutoring in Writing 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in writing with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

TUTR 10K — Tutoring in Mathematics 1 Unit
Degree Applicable
18 hours lecture
Tutoring in mathematics with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10L — Tutoring in Economics 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in economics with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10M — Tutoring in Business 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in business with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10N — Tutoring in Psychology 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in psychology with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10O — Tutoring in Sociology 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in sociology with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10P — Tutoring in Anthropology 1 Unit
Not Degree Applicable
18 hours lecture
Tutoring in anthropology with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10Q — Tutoring in English 1 Unit
Degree Applicable
18 hours lecture
Tutoring in English with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

TUTR 10R — Tutoring in Reading 1 Unit
Not Degree Applicable
18 hours lecture
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
Water treatment systems. Pre-treatment, coagulation, sedimentation, filtration, disinfection. Uses of treated water. Practical experience in water treatment will be included. Preparatory training for the State Water Treatment Operator Certification and AWWA Water Distribution Operator Certification.

WATR 62 — Water Distribution 3 Units
Degree Applicable
54 hours lecture
Water distribution systems operation, administration, safety, maintenance, introduction to Cross-connection Control Title 17. Preparatory training for Grade II and III State Water Treatment Operator Certification.

WATR 63 — Cross Connection Control - Certified Tester 3 Units
Degree Applicable
54 hours lecture
Prepares the student for Grade II and III AWWA Distribution Operator Certification.

WELDING

WELD 40 — Introduction to Welding 2 Units
Degree Applicable, CSU
18 hours lecture
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.

WELD 50 — Oxyacetylene Welding 2 Units
Degree Applicable
18 hours lecture
Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WELD 51</td>
<td>Basic Electric Arc Welding</td>
<td>2</td>
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<tr>
<td>WELD 53A</td>
<td>Welding Metallurgy</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<tr>
<td>WELD 60</td>
<td>Print Reading and Computations for Welders</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>WELD 70A</td>
<td>Beginning Arc Welding</td>
<td>3</td>
<td>Degree Applicable</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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<tr>
<td>WELD 70C</td>
<td>Certification for Welders</td>
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<td>Degree Applicable</td>
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<td>WELD 70D</td>
<td>Gas Tungsten Arc Welding</td>
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<td>Degree Applicable</td>
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<tr>
<td>WELD 70E</td>
<td>Semiautomatic Arc Welding Process</td>
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<tr>
<td>WELD 80</td>
<td>Construction Fabrication and Welding</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>WELD 90A</td>
<td>Automotive Welding, Cutting and Modification</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>WELD 90B</td>
<td>Work Experience in Welding</td>
<td>1 to 4</td>
<td>Degree Applicable</td>
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### WELD 51 — Basic Electric Arc Welding
- **2 Units**
- **Degree Applicable**
- **18 hours lecture**
- **54 hours lab**
- **Advisory:** WELD 50
- **Basic electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (A.W.S.) procedure for certification.**

### WELD 53A — Welding Metallurgy
- **3 Units**
- **Degree Applicable, CSU**
- **54 hours lecture**
- **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.**

### WELD 60 — Print Reading and Computations for Welders
- **3 Units**
- **Degree Applicable**
- **54 hours lecture**
- **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.**

### WELD 70A — Beginning Arc Welding
- **3 Units**
- **Degree Applicable**
- **18 hours lecture**
- **108 hours lab**
- **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.**

### WELD 70B — Intermediate Arc Welding
- **3 Units**
- **Degree Applicable**
- **18 hours lecture**
- **108 hours lab**
- **Advisory: WELD 70A taken prior**
- **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.**

### WELD 70C — Certification for Welders
- **3 Units**
- **Degree Applicable**
- **18 hours lecture**
- **108 hours lab**
- **Advisory: WELD 70A taken prior**
- **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.**

### WELD 80 — Construction Fabrication and Welding
- **3 Units**
- **Degree Applicable**
- **18 hours lecture**
- **108 hours lab**
- **Advisory: WELD 40, WELD 51, WELD 70A**
- **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.**

### WELD 90A — Gas Tungsten Arc Welding
- **3 Units**
- **Degree Applicable, CSU**
- **(May be taken for option of letter grade or Pass/No Pass)**
- **18 hours lecture**
- **108 hours lab**
- **Advisory: WELD 70B taken prior**
- **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 varying thickness.**

### WELD 90B — Semiautomatic Arc Welding Process
- **3 Units**
- **Degree Applicable, CSU**
- **(May be taken for option of letter grade or Pass/No Pass)**
- **18 hours lecture**
- **108 hours lab**
- **Advisory: WELD 70B taken prior**
- **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.**

### WELD 91 — Automotive Welding, Cutting and Modification
- **3 Units**
- **Degree Applicable**
- **(May be taken for option of letter grade or Pass/No Pass)**
- **18 hours lecture**
- **108 hours lab**
- **Advisory: WELD 70B taken prior**
- **Instruction in the art of welding and cutting on metals commonly used in the automotive industry. Gas Metal Arc (MIG), Gas Tungsten Arc (GTAW), Plasma Arc cutting and oxyfuel cutting and welding will be covered.**

### WELD 96 — Work Experience in Welding
- **1 to 4 Units**
- **Degree Applicable**
- **(May be taken for option of letter grade or Pass/No Pass)**
- **108 to 300 hours lab**
- **Advisory: WELD 70B**
- **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.**
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, Adult Basic Education (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 Adult Basic Education 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

Adult Basic Education students are assessed prior to enrolling in courses. Additional assessments are available for specific needs. Adult Basic Education assessment services include testing for academic skill levels, learning strengths, career paths and learning disabilities. For more information, contact (909) 274-4845.

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) 274-5235.

Orientation

Adult Basic Education and ESL students must attend an orientation session prior to registration. Orientation sessions are generally offered immediately after assessment.

Counseling and Advisement

Educational advisement services are available in the Continuing Education Division office, Building 40, room 104, during the first week of registration and at the beginning of each semester for career and educational planning. These educational advisement services are also ongoing throughout the semester through the Adult Basic Education Center. To schedule an individual appointment, students should call the Continuing Education Center, (909) 274-4845.

The Adult Basic Education 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 Building 40, room 104. 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. 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 214 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, Building 40, room 104 to initiate the issuance of a certificate.

Adult Basic Education and Special Programs

The Adult Basic Education and Special Programs department works with local K-12 districts, county and state agencies to provide programs to students with special and/or basic skills needs. Courses and services include:

- Basic Skills Remediation
- GED Preparation and Testing
- Adult High School Diploma Program
- High School Referral Program (High school make-up credit)
- Summer High School Program
- Athlete Tutoring and Student Support (WIN Program)
- Parent Education Courses
- Armed Services Vocational Aptitude Battery (ASVAB) Preparation
- Support Services to Careers in Childcare Program Students
- High School and Career Counseling; Educational Advising
- Computer Literacy and Keyboarding Classes
- Typing Test Certification

For more information on Adult Basic Education and Special Programs, contact (909) 274-4845.

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, Building 66, contact (909) 274-5235.

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
- DVD’s, videos, audio recordings
- Pronunciation software
- Computer Aided Testing for Federal Aviation Administration and Chiropractic tests

For more information on the LLC, contact (909) 274-4580.

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 Building 40, room 104, or in the Wellness Center. For more information, contact (909) 274-4625.

*Note: Although courses are designed for the older adult, anyone 18 years of age and older may enroll.
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) 274-4838.

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 Mt. SAC credit and noncredit health career students. The HCRC provides a state-of-the-art learning lab 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.
Registration is limited to students enrolled in Mt. SAC credit and noncredit health occupations programs. 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

Continuing Education Division
- Long-Term and Acute Certified Nursing Assistant (C.N. A.)
- IV Therapy, CPR
- 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 aides 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) 274-4192.

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)
- 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) 274-4220.
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CERTIFICATES 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

#24058
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 need. Courses are offered days and evenings to accommodate work and personal schedules. For more information, please call (909) 274-4045.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS ABE02</td>
<td>Adult Basic Education</td>
</tr>
<tr>
<td>BS ABE06</td>
<td>Basic Skills Foundation</td>
</tr>
<tr>
<td>BS LRN06</td>
<td>Personal Computer Applications</td>
</tr>
<tr>
<td>BS LRN01</td>
<td>Short-Term Review</td>
</tr>
<tr>
<td>BS LRN03</td>
<td>Math Skills Review</td>
</tr>
<tr>
<td>BS LRN72</td>
<td>Reading Acceleration</td>
</tr>
<tr>
<td>BS LRN76</td>
<td>Improving Reading Comprehension</td>
</tr>
<tr>
<td>BS LRN81</td>
<td>Improving Writing</td>
</tr>
<tr>
<td>BS MTH01</td>
<td>Developmental Mathematics Concepts and Applications</td>
</tr>
<tr>
<td>BS WRT2</td>
<td>Basic Writing Skills Development</td>
</tr>
</tbody>
</table>

English as a Second Language

#24054
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) 274-5235.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPLV1</td>
<td>ESL – Pre-Level 1</td>
</tr>
<tr>
<td>EPLV1</td>
<td>ESL – Level 1</td>
</tr>
<tr>
<td>EPLV2</td>
<td>ESL – Level 2</td>
</tr>
<tr>
<td>EPLV3</td>
<td>ESL – Level 3</td>
</tr>
<tr>
<td>EPLV4</td>
<td>ESL – Level 4</td>
</tr>
<tr>
<td>EPLV5</td>
<td>ESL – Level 5</td>
</tr>
<tr>
<td>EPLV6</td>
<td>ESL – Level 6</td>
</tr>
<tr>
<td>EPLK1</td>
<td>ESL – Speaking A</td>
</tr>
<tr>
<td>EPLK2</td>
<td>ESL – Speaking B</td>
</tr>
<tr>
<td>EPLK3</td>
<td>ESL – Speaking C</td>
</tr>
<tr>
<td>EPLDFL</td>
<td>TOEFL Preparation</td>
</tr>
<tr>
<td>EPLR1A</td>
<td>ESL Writing A</td>
</tr>
<tr>
<td>EPLR1B</td>
<td>ESL Writing B</td>
</tr>
<tr>
<td>EPLR1C</td>
<td>ESL Writing C</td>
</tr>
<tr>
<td>EPLANG2</td>
<td>English for Special Uses</td>
</tr>
<tr>
<td>ESL LANG1</td>
<td>Language Skills Laboratory</td>
</tr>
<tr>
<td>ESL VHLTH</td>
<td>English as a Second Language for Health Professionals</td>
</tr>
</tbody>
</table>

Career Development

#24060
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) 274-4045.

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>
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<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>
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<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 CHSL5</td>
<td>Career/Life Planning</td>
</tr>
</tbody>
</table>

ESL Beginning Level

#30375
ESL students are placed within the following sequence of beginning courses according to their English abilities. Students progress through this sequence based on individual need before transitioning into intermediate 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) 274-5235.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPLV1</td>
<td>ESL – Pre-Level 1</td>
</tr>
<tr>
<td>EPLV1</td>
<td>ESL – Level 1</td>
</tr>
<tr>
<td>EPLV2</td>
<td>ESL – Level 2</td>
</tr>
<tr>
<td>EPLV3</td>
<td>ESL – Level 3</td>
</tr>
<tr>
<td>EPLV4</td>
<td>ESL – Level 4</td>
</tr>
<tr>
<td>EPLV5</td>
<td>ESL – Level 5</td>
</tr>
<tr>
<td>EPLV6</td>
<td>ESL – Level 6</td>
</tr>
<tr>
<td>EPLK1</td>
<td>ESL – Speaking A</td>
</tr>
<tr>
<td>EPLK2</td>
<td>ESL – Speaking B</td>
</tr>
<tr>
<td>EPLK3</td>
<td>ESL – Speaking C</td>
</tr>
<tr>
<td>EPLDFL</td>
<td>TOEFL Preparation</td>
</tr>
<tr>
<td>EPLR1A</td>
<td>ESL Writing A</td>
</tr>
<tr>
<td>EPLR1B</td>
<td>ESL Writing B</td>
</tr>
<tr>
<td>EPLR1C</td>
<td>ESL Writing C</td>
</tr>
<tr>
<td>EPLANG2</td>
<td>English for Special Uses</td>
</tr>
<tr>
<td>ESL LANG1</td>
<td>Language Skills Laboratory</td>
</tr>
<tr>
<td>ESL VHLTH</td>
<td>English as a Second Language for Health Professionals</td>
</tr>
</tbody>
</table>

ESL Intermediate Level

#30374
ESL students are placed within the following sequence of beginning courses according to their English abilities. Students progress through this sequence based on individual need before transitioning into intermediate 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) 274-5235.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
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<tr>
<td>EPLV1</td>
<td>ESL – Pre-Level 3</td>
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<tr>
<td>EPLV1</td>
<td>ESL – Level 3</td>
</tr>
<tr>
<td>EPLV4</td>
<td>ESL – Level 4</td>
</tr>
<tr>
<td>EPLK1</td>
<td>ESL – Speaking A</td>
</tr>
<tr>
<td>EPLK2</td>
<td>ESL – Speaking B</td>
</tr>
<tr>
<td>EPLK3</td>
<td>ESL – Speaking C</td>
</tr>
<tr>
<td>EPLDFL</td>
<td>TOEFL Preparation</td>
</tr>
<tr>
<td>EPLR1A</td>
<td>ESL Writing A</td>
</tr>
<tr>
<td>EPLR1B</td>
<td>ESL Writing B</td>
</tr>
<tr>
<td>EPLR1C</td>
<td>ESL Writing C</td>
</tr>
<tr>
<td>EPLANG2</td>
<td>English for Special Uses</td>
</tr>
<tr>
<td>ESL LANG1</td>
<td>Language Skills Laboratory</td>
</tr>
<tr>
<td>ESL LANG2</td>
<td>English as a Second Language for Health Professionals</td>
</tr>
</tbody>
</table>

ESL Advanced Level

#30376
ESL students are placed within the following sequence of beginning courses according to their English abilities. Students progress through this sequence based on individual need before transitioning into intermediate 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) 274-5235.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPLV3</td>
<td>ESL – Level 3</td>
</tr>
<tr>
<td>EPLV4</td>
<td>ESL – Level 4</td>
</tr>
<tr>
<td>EPLK1</td>
<td>ESL – Speaking B</td>
</tr>
<tr>
<td>EPLK2</td>
<td>ESL – Writing B</td>
</tr>
<tr>
<td>EPLK3</td>
<td>ESL – Speaking C</td>
</tr>
<tr>
<td>EPLDFL</td>
<td>TOEFL Preparation</td>
</tr>
<tr>
<td>EPLR1A</td>
<td>ESL Writing B</td>
</tr>
<tr>
<td>EPLR1B</td>
<td>ESL Writing C</td>
</tr>
<tr>
<td>EPLR1C</td>
<td>ESL Writing C</td>
</tr>
<tr>
<td>EPLANG2</td>
<td>English for Special Uses</td>
</tr>
<tr>
<td>ESL LANG2</td>
<td>English as a Second Language for Health Professionals</td>
</tr>
</tbody>
</table>

GED Preparation

#PENDING
Improve the academic skills needed for passing the General Education Development (GED) exam. Math, reading, writing, science and social studies. Progress in a sequence based on individual need. For more information, please call (909) 274-4845.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS GEDMA</td>
<td>GED Preparation: Mathematics</td>
</tr>
<tr>
<td>BS GEDDR</td>
<td>GED Preparation: Language Arts, Reading</td>
</tr>
<tr>
<td>BS GEDSC</td>
<td>GED Preparation: Science</td>
</tr>
<tr>
<td>BS GEDSS</td>
<td>GED Preparation: Social Studies</td>
</tr>
<tr>
<td>BS GEDWR</td>
<td>GED Preparation: Science</td>
</tr>
</tbody>
</table>
CONTINUING EDUCATION

Secondary Education

#24213
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) 274-4845.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSHS ADE</td>
<td>High School Academic Decathlon</td>
</tr>
<tr>
<td>BSHS AWRW</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 CIV</td>
<td>High School Civics/American Government</td>
</tr>
<tr>
<td>BSHS CPTC</td>
<td>High School Computer Technology</td>
</tr>
<tr>
<td>BSHS DPFR</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>
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<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 HATH</td>
<td>High School Health</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>
<tr>
<td>BSHS MUSC</td>
<td>High School Music Appreciation</td>
</tr>
<tr>
<td>BSHS NS1</td>
<td>High School Natural Science 1</td>
</tr>
<tr>
<td>BSHS PHIL</td>
<td>High School Philosophy</td>
</tr>
<tr>
<td>BSHS PSC</td>
<td>High School Physical Science</td>
</tr>
<tr>
<td>BSHS PLNG</td>
<td>High School Planning and Guidance</td>
</tr>
<tr>
<td>BSHS PREA</td>
<td>High School Pre-Algebra</td>
</tr>
<tr>
<td>BSHS PSY</td>
<td>High School Psychology</td>
</tr>
<tr>
<td>BSHS SSK</td>
<td>High School Study Skills</td>
</tr>
<tr>
<td>BSHS SOC</td>
<td>High School Sociology</td>
</tr>
<tr>
<td>BSHS SPN1</td>
<td>High School Spanish 1</td>
</tr>
<tr>
<td>BSHS SPN2</td>
<td>High School Spanish 2</td>
</tr>
<tr>
<td>BSHS TAL2</td>
<td>High School Topics in Algebra 2</td>
</tr>
<tr>
<td>BSHS TEGO</td>
<td>High School Topics in Geometry</td>
</tr>
<tr>
<td>BSHS USHS</td>
<td>High School United States History</td>
</tr>
<tr>
<td>BSHS WHIS</td>
<td>High School World History</td>
</tr>
<tr>
<td>BSHS WREX</td>
<td>High School Expository Writing</td>
</tr>
</tbody>
</table>

Certificates in Occupational Training

California Community College Adult Education Programs are authorized to offer short-term vocational 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 vocational 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. Courses 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 Technician
- RN Re-Entry into Practice

Specific certificate content and more information can be found in the Community Services Schedules of Classes each semester or contact (909) 274-4220.

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, 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) 274-4220.

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, Building 40, room 104. 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) 274-4845 to schedule an appointment.

Occupational – Accounting

Accounting – Bookkeeping

#24089
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, and maintaining records in this field.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA67</td>
<td>Principles of Accounting – Financial, Jr</td>
</tr>
<tr>
<td>VOC BA72</td>
<td>Bookkeeping – Accounting</td>
</tr>
<tr>
<td>VOC BA53</td>
<td>Ten-Key Calculations</td>
</tr>
<tr>
<td>VOC BA05</td>
<td>Business English, Jr</td>
</tr>
<tr>
<td>VOC BA25</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

Accounting – Computerized

#24246
The Computerized Accounting Certificate provides the student with basic accounting skills and knowledge together with additional training in computer applications common to the accounting industry. This certificate 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 report analysis, and account analysis.

Certificate Requirements:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA75</td>
<td>Using Microcomputers in Financial Accounting</td>
</tr>
</tbody>
</table>

Occupational – Agricultural Science

Floral Design

#24242
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 AG82</td>
<td>Floral Design – 1</td>
</tr>
<tr>
<td>VOC AG83</td>
<td>Floral Design – 2</td>
</tr>
<tr>
<td>VOC AG87</td>
<td>Floral Design – 3</td>
</tr>
</tbody>
</table>
### Horse Ranch Management #24340
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 AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
</tr>
<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>
<tr>
<td>VOC AGR32</td>
<td>Landscape and Nursery Management</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR64</td>
<td>Landscape Irrigation – Drip and Low Volume</td>
</tr>
</tbody>
</table>

### Landscape Design and Construction #24248
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>
</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>
</tbody>
</table>

### Landscape Irrigation #24088
This certificate is designed to give students basic skills in irrigation design, repair, installation, water management and troubleshooting. Courses are offered Fall and Spring. Jobs are plentiful with landscape contractors, schools, parks and cities.

**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 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 AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
</tbody>
</table>

### Landscape Equipment Technology #24111
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 AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR52</td>
<td>Hydraulics</td>
</tr>
<tr>
<td>VOC AGR53</td>
<td>Small Engine Repair I</td>
</tr>
<tr>
<td>VOC AGR55</td>
<td>Diesel Engine Repair</td>
</tr>
<tr>
<td>VOC AGR56</td>
<td>Engine Diagnostics</td>
</tr>
<tr>
<td>VOC AGR57</td>
<td>Power Train Repair</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>

### Livestock Management #24057
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 AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGR05</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR06</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGR17</td>
<td>Sheep Production</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Beef Production</td>
</tr>
<tr>
<td>VOC AGR34</td>
<td>Livestock Judging and Selection</td>
</tr>
<tr>
<td>VOC AGR96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
</tbody>
</table>

### Nursery Management #24209
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 AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR02</td>
<td>Plant Propagation/Greenhouse Management</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 AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
</tbody>
</table>

### Park Management #24374
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</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 AGR75</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>
Continuing Education

Pet Science
#24172
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:
Course ID  Course Title
VOC AGN01  Animal Science
VOC AGN02  Animal Nutrition
VOC AGN51  Animal Handling and Restraint
VOC AGN94  Animal Breeding
VOC AGL96  Animal Sanitation and Disease Control
VOC AGP70  Pet Shop Management
VOC AGP71  Canine Management
VOC AGP72  Feline Management
VOC AGP73  Tropical and Coldwater Fish Management
VOC AGP74  Reptile Management
VOC AGP76  Aviculture – Cage and Aviary Birds
VOC BM66  Small Business Management

Sports Turf Management
#24075
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:
Course ID  Course Title
VOC AGR01  Horticultural Science
VOC AGR24  Integrated Pest Management
VOC AGR30  Ornamental Plants – Trees and Woody Shrubs
VOC AGR32  Landscape and Nursery Management
VOC AGR50  Soil Science and Management
VOC AGR51  Tractor and Landscape Equipment Operations
VOC AGR53  Small Engine Repair 1
VOC AGR75  Urban Arboriculture

OCCUPATIONAL – BUSINESS MANAGEMENT

Business Management – Level 1
#24108
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:
Course ID  Course Title
VOC BM20  Principles of Business
VOC BM61  Business Organization and Management
VOC BS36  Principles of Marketing

Business Management – Level 2
#24110
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:
Course ID  Course Title
VOC BM07  Principles of Accounting – Financial
VOC BM10  Principles of Continuous Quality Improvement
VOC BM51  Principles of International Business

Human Resource Management
#24320
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:
Course ID  Course Title
VOC BM20  Principles of Business
VOC BM61  Business Organization and Management
VOC BM62  Human Resource Management

International Business – Level 1
#24107
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 as a 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:
Course ID  Course Title
VOC BM20  Principles of Business
VOC BM51  Principles of International Business
VOC BS36  Principles of Marketing

International Business – Level 2
#24431
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:
Course ID  Course Title
VOC BM61  Business Organization and Management
VOC BM66  Small Business Management
VOC BS76  International Marketing Concepts
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24318</td>
<td>Retail Management – Level 1</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>VOC B025 Business Communications</td>
</tr>
<tr>
<td></td>
<td>VOC CB815 Microcomputer Applications</td>
</tr>
<tr>
<td></td>
<td>VOC FSH62 Retail Store Management and Merchandising</td>
</tr>
<tr>
<td></td>
<td>OR VOC B550 Retail Store Management and Merchandising</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24359</td>
<td>Retail Management – Level 2</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Completion of:</strong></td>
</tr>
<tr>
<td></td>
<td>Retail Management – Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>PLUS the following:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>VOC BA11 Fundamentals of Accounting</td>
</tr>
<tr>
<td></td>
<td>VOC BM61 Business Organization and Management</td>
</tr>
<tr>
<td></td>
<td>VOC BM62 Human Resource Management</td>
</tr>
<tr>
<td></td>
<td>VOC BS36 Principles of Marketing</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24383</td>
<td>Retail Management – Level 3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Completion of:</strong></td>
</tr>
<tr>
<td></td>
<td>Retail Management – Level 1</td>
</tr>
<tr>
<td></td>
<td>Retail Management – Level 2</td>
</tr>
<tr>
<td></td>
<td><strong>PLUS the following:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>VOC BA07 Principles of Accounting – Financial</td>
</tr>
<tr>
<td></td>
<td>VOC BM60 Human Relations in Business</td>
</tr>
<tr>
<td></td>
<td>VOC B026 Oral Communications for Business</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24035</td>
<td>Small Business Management – Level 1</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>Voc BM20 Principles of Business</td>
</tr>
<tr>
<td></td>
<td>VOC BM66 Small Business Management</td>
</tr>
<tr>
<td></td>
<td>VOC BS36 Principles of Marketing</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24034</td>
<td>Small Business Management – Level 2</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Completion of:</strong></td>
</tr>
<tr>
<td></td>
<td>Small Business Management – Level 1</td>
</tr>
<tr>
<td></td>
<td><strong>PLUS the following:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>Voc BM60 Human Relations in Business</td>
</tr>
<tr>
<td></td>
<td>Voc BM61 Business Organization and Management</td>
</tr>
<tr>
<td></td>
<td>Voc BM62 Human Resource Management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24034</td>
<td>Small Business Management – Level 3</td>
</tr>
<tr>
<td></td>
<td>Upon completion of the Small Business Management – Level 3 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 business career.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Completion of:</strong></td>
</tr>
<tr>
<td></td>
<td>Small Business Management – Levels 1 and 2</td>
</tr>
<tr>
<td></td>
<td><strong>PLUS the following:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>Voc BA07 Principles of Accounting – Financial</td>
</tr>
<tr>
<td></td>
<td>Voc BM10 Principles of Continuous Quality Improvement (CQ)</td>
</tr>
<tr>
<td></td>
<td>Voc CB815 Microcomputer Applications</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24059</td>
<td>Computer and Networking Technology – Level 1</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>Voc CN150 PC Servicing</td>
</tr>
<tr>
<td></td>
<td>Voc CN152 PC Operating Systems</td>
</tr>
<tr>
<td></td>
<td>Voc CN154 PC Troubleshooting</td>
</tr>
<tr>
<td></td>
<td>Voc CN160 A+ Certification Preparation</td>
</tr>
<tr>
<td></td>
<td>Voc EL11 Technical Applications in Microcomputers</td>
</tr>
<tr>
<td></td>
<td>Voc CB815 Microcomputer Applications</td>
</tr>
<tr>
<td></td>
<td>Voc EL50A Electronic Circuits (DC)</td>
</tr>
<tr>
<td></td>
<td>Voc EL50B Electronic Circuits (AC)</td>
</tr>
<tr>
<td></td>
<td>Voc EL56 Digital Electronics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#24284</td>
<td>Computer Systems Technology – Level I</td>
</tr>
<tr>
<td></td>
<td>The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry. This includes microprocessor programming codes and microprocessor interfacing circuits.</td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course ID</strong> Course Title</td>
</tr>
<tr>
<td></td>
<td>Voc EL11 Technical Applications in Microcomputers</td>
</tr>
<tr>
<td></td>
<td>Voc EL12 Computer Simulation and Troubleshooting</td>
</tr>
<tr>
<td></td>
<td>Voc EL50A Electronic Circuits (DC)</td>
</tr>
<tr>
<td></td>
<td>Voc EL50B Electronic Circuits (AC)</td>
</tr>
<tr>
<td></td>
<td>Voc EL51 Electronic Devices</td>
</tr>
<tr>
<td></td>
<td>Voc EL56 Digital Electronics</td>
</tr>
<tr>
<td></td>
<td>Voc EL61 Electronics Assembly and Fabrication</td>
</tr>
<tr>
<td></td>
<td>Voc EL74 Microprocessor Systems</td>
</tr>
</tbody>
</table>
Continuing Education

Electronic Assembly and Fabrication
#24162
This certificate prepares students to enter the electronics field as assembly and fabrication technicians.

Certificate Requirements:
Course ID Course Title
VOC EST50A Electronic Circuits (DC)
VOC EST50B Electronic Circuits (AC)
VOC EST52 Fabrication Techniques for Cable Installations
VOC EL61 Electronic Assembly and Fabrication
VOC EL62 Advanced Surface Mount Assembly and Rework

Electronic Systems Technology – Level 2
#24416
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 ETS56 Home Theater and Home Automation Systems
VOC EST62 Electronic Troubleshooting – 1
VOC TCH60 Customer Relations for the Technician
VOC ETS64 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
#24073
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. If 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 EL53 Communications Circuits
VOC EL54A Industrial Electronics
VOC EL54B Industrial Electronic Systems
VOC EL55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EL74 Microprocessor Systems
VOC TCH60 Customer Relations for the Technician

Recommended Electives:
VOC EDT11 Technical Engineering Drawing I
VOC EL62 Advanced Surface Mount Assembly and Rework
VOC EL76 Radio Telephone Communications

Electronics and Computer – Engineering Technology
#24171
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 EL54A Industrial Electronics
VOC EL54B Industrial Electronic Systems
VOC EL55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EL74 Microprocessor Systems
VOC TCH60 Customer Relations for the Technician

Certified Nursing and Acute Care Nursing Assistant
#24400
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

Industrial Electronics
#24319
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
VOC EL12 Computer Simulation and Troubleshooting
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronic Devices
VOC EL54A Industrial Electronics
VOC EL54B Industrial Electronic Systems
VOC EL55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EL74 Microprocessor Systems
VOC TCH60 Customer Relations for the Technician

OCCUPATIONAL – HEALTH CAREERS

Microwave Communications
Digital Electronics
Electronics Assembly and Fabrication
Customer Relations for the Technician

VOC EST50 Microwave Communications
VOC EST56 Digital Electronics
VOC EST61 Electronics Assembly and Fabrication
VOC EST60 Customer Relations for the Technician

VOC EL55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EST60 Customer Relations for the Technician

VOC EST55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC TCH60 Customer Relations for the Technician
• 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:

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<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC HTH01</td>
<td>Certified Nursing Assistant</td>
</tr>
<tr>
<td>VOC HTH04</td>
<td>Acute Care Nursing Assistant</td>
</tr>
<tr>
<td>VOC HTH05</td>
<td>Health Careers Resource Center</td>
</tr>
</tbody>
</table>

Certified Nurse Assistant (CNA)

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) 274-4768.

Health Care Interpreting

#24056

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, the need for trained interpreters is growing rapidly. Many health care providers are choosing to upgrade the skills of their current employees through certificate programs such as ours.

The Health Care Interpreting Certificate is an 11 month program, designed to train bilingual and multilingual 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, students 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:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
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<td>English for Health Professionals</td>
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<tr>
<td>VOC HTH01</td>
<td>Certified Nursing Assistant</td>
</tr>
<tr>
<td>VOC HTH04</td>
<td>Acute Care Nursing Assistant</td>
</tr>
<tr>
<td>VOC HTH05</td>
<td>Health Careers Resource Center</td>
</tr>
<tr>
<td>VOC HTH12</td>
<td>Medical Terminology</td>
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<tr>
<td>VOC ANA50</td>
<td>Basic Anatomy and Physiology</td>
</tr>
<tr>
<td>VOC HTH13</td>
<td>Interpreting in Health Care Setting 1</td>
</tr>
<tr>
<td>VOC HTH14</td>
<td>Interpreting in Health Care Setting 2</td>
</tr>
<tr>
<td>VOC HTH05</td>
<td>Health Careers Resource Center</td>
</tr>
<tr>
<td>VOC HTH15</td>
<td>Externship in Health Care Interpreting</td>
</tr>
<tr>
<td>VOC HTH20</td>
<td>Health Care Interpreter Seminar</td>
</tr>
</tbody>
</table>

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) 274-5236.

OCCUPATIONAL – MANUFACTURING TECHNOLOGY

Manufacturing Technology

#24070

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>AutoCAD 2-D</td>
</tr>
<tr>
<td>VOC MF17</td>
<td>3-D CAD – Mechanical Modeling</td>
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<tr>
<td>VOC MF19</td>
<td>Parametric Solid Modeling for Manufacturing</td>
</tr>
<tr>
<td>VOC MF38</td>
<td>MasterCAM I</td>
</tr>
<tr>
<td>VOC MF39</td>
<td>SurfCAM I</td>
</tr>
<tr>
<td>VOC MF39B</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:

- VOC MF25 Advanced Parametric Solid Modeling for Manufacturing
- VOC MF27 AutoDesk Inventor
- VOC WL40 Introduction to Welding

OCCUPATIONAL – OFFICE TECHNOLOGY

Administrative Assistant – Level 1

#24061

Prepares students for entry-level clerical positions where keyboarding is the primary function.

Certificate Requirements:

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<th>Course ID</th>
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<td>VOC BO25</td>
<td>Business Communications</td>
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<tr>
<td>VOC CS15</td>
<td>Intermediate Computer Keyboarding</td>
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<tr>
<td>VOC CSB31</td>
<td>Word for the Business Professional</td>
</tr>
<tr>
<td>VOC CS41</td>
<td>Transcription Techniques</td>
</tr>
</tbody>
</table>

OCCUPATIONAL – MANUFACTURING TECHNOLOGY

Parametric Solid Modeling

#24251

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 MF15</td>
<td>AutoCAD 2D</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>

OCCUPATIONAL – OFFICE TECHNOLOGY

Administrative Assistant – Level 2

#24066

This certificate prepares students for clerical positions where office organization and transcription skills are needed.

Certificate Requirements:

Completion of:

- Completion of Administrative Assistant – Level 1

PLUS the following:

<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 CS15</td>
<td>Intermediate Computer Keyboarding</td>
</tr>
<tr>
<td>VOC CSB31</td>
<td>Word for the Business Professional</td>
</tr>
<tr>
<td>VOC CS41</td>
<td>Transcription Techniques</td>
</tr>
</tbody>
</table>
Continuing Education

Data Entry

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:
- **Course ID**
- **Course Title**

VOC CS15 Intermediate Computer Keyboarding
VOC CP12 Office Computer Applications
VOC CS16 Operating the Macintosh Computer
VOC GRP1 Microcomputer Applications
VOC CS21 Data Entry

Office Computer Applications

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:
- **Course ID**
- **Course Title**

VOC CPBC1 Basic Computing – Level 1
VOC CPBC2 Basic Computing – Level 2
VOC CPBC3 Basic Computing – Level 3
VOC CPNET Internet Research – An Introduction
VOC CPCC Creative Computing

Photography

This certificate is designed to prepare students to develop specific skills needed for employment in photography, art, cinema/animation, communications, industrial arts, graphics and journalism.

Certificate Requirements:
- **Course ID**
- **Course Title**

VOC GRP11 Computer Graphics Lab
VOC GRP10 Photoshop Imagery
VOC PHO10 Basic Digital and Film Photography
VOC PHO11 Advanced Professional Photography
VOC PHO12 Photographic Alternatives
VOC PHO13 Exploring Color Photography
VOC PHO14 Fashion Photography
VOC PHO15 Portraiture and Wedding Photography
VOC PHO16 Photometric Communication
VOC PHO20 Color Photography
VOC PHO21 Photography Portfolio Development
VOC PHO30 Commercial and Illustrative Photography

Recommended Electives:
The Photography faculty recommends that you complement your studies with selected elective courses listed below. You should meet with a professor of Computer Graphics Design/Photography to help you determine which electives would best suit your career plans.

- VOC GRP12 Advanced Photoshop Editing with Photoshop Lab
- VOC PHO01 Laboratory Studies: Black and White Photography
- VOC PHO02 Laboratory Studies: Color Photography
- VOC PHO15 History of Photography
- VOC PHO16 Photojournalism

Welding

This certificate is designed to prepare students for employment in the broad field of welding, leading to occupations in manufacturing, repair, and construction. It prepares students to test for the Structural Welding Certificate.

Certificate Requirements:
- **Course ID**
- **Course Title**

VOC WL60 Print Reading and Computations for Welders
VOC WL70A Beginning ARC Welding
VOC WL70B Intermediate ARC Welding
VOC WL70C Certification for Welders

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.

Welder with Concentration in Automotive Welding, Cutting & Modification

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:**
  - **Course ID**
  - **Course Title**

Welder with Concentration in Gas Tungsten ARC Welding

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:**
  - **Course ID**
  - **Course Title**
  - **Hours**

Licensed Welder

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:
- **Course ID**
- **Course Title**

Welder with Concentration in SemiAutomatic ARC Welding

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:**
  - **Course ID**
  - **Course Title**
  - **Hours**
<table>
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<td>Re-Entry Work Skills Needed for Today’s Workforce</td>
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<td>Diploma and Referral Program Learning</td>
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<td>Administration of Justice Report Writing</td>
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<td>Concepts of Criminal Law</td>
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<td>Animal Science</td>
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<td>Animal Nutrition</td>
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<td>Artificial Insemination of Livestock</td>
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<td>Aviculture — Cage and Aviary Birds</td>
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<td>Beef Production</td>
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<td>Engine Diagnostics</td>
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<td>Feline Management</td>
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<tr>
<td>Floral Design 1, 2 and 3</td>
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<td>Food Production, Land Use and Politics — A Global Perspective</td>
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## Continuing Education

### Landscape Design
- Landscape Design
- Landscape Design and Installation
- Landscape Irrigation - Contracting and Estimating
- Landscape Irrigation - Design and Installation
- Landscape Irrigation - Drip and Low Volume

### Business Mathematics
- Business Mathematics
- Business English
- Business Communications
- Accounting, Payroll and Tax
- Basic CAD and Computer Application
- Architectural Drawing
- Architectural Computer Aligned Design (CAD) Elements
- Architectural Computer Aligned Design (CAD) 3-D Illustration and Animation
- Architectural Drawing
- Basic CAD and Computer Application

### Urban Arboriculture
- Ornamental Plants – Herbaceous
- Livestock Judging and Selection
- Landscape Irrigation – Drip and Low Volume
- Ornamental Plants – Trees and Woody Shrubs
- Park Facilities
- Park Management
- Pet Shop Management
- Plant Propagation/Greenhouse Management
- Power Train Repair
- Reptile Management
- Sheep Production
- Small Engine Repair
- Soil Science and Management
- Sports Turf Management
- Swine Production
- Tractor and Landscape Equipment Operations
- Tropical and Cold Water Fish Management
- Turf Grass Production and Management

### Microcomputer Applications
- Basic Computing, Levels 1, 2, and 3
- Computer Keyboarding
- Computer Keyboarding, Intermediate
- Computer Laboratory
- Creative Computing
- Data Entry
- Desktop Publishing Software
- Internet Research, Introduction to
- Macintosh Applications
- Microcomputer Applications
- Microsoft PowerPoint
- Microsoft Word
- Office Management Skills
- Web Site Development

### Computer Technology
- A+ Certification Preparation
- Network+ Certification Preparation
- PC Operating Systems
- PC Servicing
- PC Troubleshooting

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### Occupational – Business
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- Accounting, Payroll and Tax
- Accounting, Principles of Financial
- Bookkeeping – Accounting
- Business Communications
- Business English
- Business Mathematics
- Business Organization and Management
- Business Vocabulary
- Business, Principles of

### Occupational – Computer Operations
- Basic Computing, Levels 1, 2, and 3
- Computer Keyboarding
- Computer Keyboarding, Intermediate
- Computer Laboratory
- Creative Computing
- Data Entry
- Desktop Publishing Software
- Internet Research, Introduction to
- Macintosh Applications
- Microcomputer Applications
- Microsoft PowerPoint
- Microsoft Word
- Office Management Skills
- Web Site Development

### Occupational – Computer Technology
- A+ Certification Preparation
- Network+ Certification Preparation
- PC Operating Systems
- PC Servicing
- PC Troubleshooting

### Occupational – Correctional Science
- Control and Supervision of the Offender
- Correlation Law
- Correctional Science, Introduction to
- Crime and Delinquency
- Ethnic Relations in Corrections
- Interviewing and Counseling in Corrections
- Probation and Parole
- Violent Offender, The

### Occupational – Electronics
- Communications Circuits Theory
- Computer Simulation and Troubleshooting
- Customer Relations for the Technician
- Digital Electronics
- Electronic Devices Theory
- Electronic Assembly and Fabrication Lecture/Laboratory
- Electronics Technology, Laboratory Studies in
- Electronics Theory
- Industrial Circuits Theory
- Industrial Electronic Systems
- Mathematics of Electronics – AC
- Mathematics of Electronics – DC
- Mechatronics, An Introduction
- Microprocessor Systems
- Microwave Communications
- Microcomputers, Technical Applications
- Radio/Telephone Communications
- Surface Mount Assembly and Rework, Advanced

### Occupational – Engineering Design
- Basic CAD and Computer Applications
- Civil Engineering Technology and CAD
- Engineering CAD Applications
- Engineering CAD 3-D Solids and Surfaces
- Mechanical Design – Geometric Dimensioning and Tolerancing
- Technical Engineering Drawing 1 and 2
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CONTINUING EDUCATION

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 Battery (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

BS GEDMA — GED Preparation: Mathematics
Improve mathematical knowledge and skills in preparation for the Math section of the General Education Development (GED) exam. Test areas include number operations, geometry, statistics and algebra.

BS GEDRD — GED Preparation: Language Arts, Reading
Improve comprehension and reading knowledge and skills in preparation for the Language Arts: Reading section of the General Education Development (GED) exam. Poetry, fiction, nonfiction, drama, art reviews and workplace documents.

BS GEDSC — GED Preparation: Science
Improve scientific knowledge and skills in preparation for the Science section of the General Education Development (GED) exam. Test areas include physics, chemistry, life science, earth science and astronomy.

BS GEDSS — GED Preparation: Social Studies
Improve historical knowledge in preparation for the social studies section of the General Education Development (GED) exam. Test areas include United States history, world history, geography, government and economics.

BS GEDWR — GED Preparation: Language Arts, Writing
Improve organizational and grammatical knowledge and skills in preparation for the Language Arts: Writing section of the General Education Development (GED) exam. Test areas include paragraph organization, sentence structure, usage, grammar mechanics and essay development.

BSH5 ACD — 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.

BSH5 ADW — 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.

BSH5 ALG1 — High School Algebra 1
Presents to 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.

BSH5 ALG2 — High School Algebra 2
Presents to 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.

BSH5 ART — 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.

BSH5 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.

BSH5 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.

BSH5 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.

BSH5 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.

BSH5 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.

BSH5 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.

BSH5 DIPR — 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.
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<th>Course Code</th>
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<tr>
<td>BSHS EASC — High School Earth Science</td>
<td>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.</td>
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<tr>
<td>BSHS ECON — High School - Economics</td>
<td>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.</td>
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<td>BSHS ELEA — CAHSEE Prep: English Language Arts</td>
<td>Introduces high school students to the foundations of literature using genre and theme experiences for high school students. Vocabulary development, writing strategies and applications, reading comprehension, poetry, fiction, nonfiction and informational and visual media. Vocabulary, interaction of words and music, influence of religion, theater, government and culture on musical style.</td>
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<td>BSHS ENG1 — High School - English 1</td>
<td>Introduces high school students to the foundations of literature using genre and theme experiences for high school students. 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>
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<td>BSHS ENG2 — High School English 2</td>
<td>Introduces high school students to the 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 conventions, listening and speaking applications, literary response and analysis.</td>
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<td>BSHS ENG3 — 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 adult 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>
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<td>BSHS ENG4 — High School English 4</td>
<td>Foundations of literature through British literature using the 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 Romantic Era, the Victorian Age, contemporary British poetry and prose.</td>
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<td>BSHS GEOG — 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 resources, 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>
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<td>BSHS ENG1 — High School - English 1</td>
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<td>BSHS GRAP — 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>
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<tr>
<td>BSHS HLTH — High School - Health Education</td>
<td>Increases high school students’ awareness of health issues, includes health 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>
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<td>BSHS KEY — 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>
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<td>BSHS LSC — 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>
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<td>BSHS MUSC — 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>
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<td>BSHS PHIL — High School Philosophy</td>
<td>Introduces high school students to the terminology, problems and major philosophers from ancient to modern times. Includes the different fields of philosophy and the different systems within those fields. Emphasis will be placed on ethics and morals as they relate to students understanding and analysis of events and theories.</td>
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<td>BSHS PSY — High School Psychology</td>
<td>Introduces high school students to the methods, facts and theories of the behavior and processes of human beings and animals. Includes theories and characteristics of the history of psychology, research and statistics, child and adult development, sensations, perceptions, cognition, motivation, behavior, personality, abnormal behavior, individuality versus group identity and behavior and therapy.</td>
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BSHS SOC — High School Sociology
Concepts and theories of social interaction for high school students. Includes the theories, characteristics and implications of culture, socialization, society groups, deviations and control, social stratification, race, gender, age, family, education, politics, religion, sports and change.

BSHS SPCH — High School Speech and Communication
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.

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 SSK — High School - Study Skills
Designed to help high school students become better learners and prepare for success in school and at work. Covers strategies and methods to enhance the students’ ability to study and learn both individually and in a group. Topics include note taking, time management, test taking, organization, memorization, learning styles and conducting research.

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 TGD0 — 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 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 an 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 of individuals, the impact of science and technology, the environment and history and social life.

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 LRN03 — 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 Development in Reading and Writing
Enhance basic skills in reading and writing, via the use of computer-assisted learning, e-mail and on-line tools.

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.

BS TR02 — 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.
Continuing Education

**DISABLED STUDENTS**

**DSPS LRND1 — 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 dialectal 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 class.
This class is for students with identified disabilities to utilize adaptive hardware and software in the High Tech Center that will assist them in succeeding in other courses. Through technology provided by the HTC, student will be given support, additional resources, assistance and strategies to succeed in their other classes. This class is designed as a transition or resource class for students eligible or nearing eligibility to advancement into other Mt. SAC courses.

**DSPS LRND3 — Adaptive Academic Preparation**
Note: Students must see a Brain Injury Specialist in Disabled Student Programs and Services (DSP&S) and have acquired their injury after the age of 12 in order to be evaluated for the Brain Injury Program prior to registration for this class.
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/or vocational goals.

**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 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 and 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 and reading and writing skills.

**ESL SPK1 — 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 TOEFL — TOEFL Preparation**
Advanced ESL students improve grammar, speaking and writing in preparation for standardization tests such as TOEFL.

**ESL VHLTH — English As A Second Language for Health Professionals**
Advanced ESL students improve medical vocabulary and English skills for healthcare situations.

**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.

**OAD ELL02 — 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 ELL03 — Lifelong Learning for Older Adults - Crafts**
Develops creative and artistic skills through visual and fine motor coordination utilizing various arts and crafts material. Students will learn skills to make crafts while sharing individual artistic expertise with peers.
OAD ELL04 — Lifelong Learning for Older Adults
Improve and/or maintain the 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 ELL05 — Lifelong Learning Through Current World Events
Presents current events in a variety of ways to provide education about local, national and world issues to promote mental fitness of the older adult.

OAD FNA01 — China Painting
Introduces the fine art of china painting through the basic understanding of the color wheel, design, etching on china, gold work, luster, raised paste for gold, matte colors and use of the kiln. Students progress at their own rate and will receive a supply list at the first class meeting.

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, souvenir memoirs, and 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 FNA32 — 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 FK004 — Quilting
Learn patchwork, appliquéd, 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 HT002 — 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 MX001 — Health Aging
Healthy aging, including diet, nutrition, disease prevention, and application of physical fitness principles to maintain health while aging.

OAD MX002 — Healthy Aging — Principles of Tai Chi
Heath aging, including diet, nutrition, disease prevention, and application of Tai Chi principles to maintain health while aging.

OAD MX004 — Healthy Aging — Principles of Yoga
Health aging, including diet, nutrition, disease prevention, and application of Yoga principles to maintaining health while aging.

OAD MX006 — Healthy Aging — Principles of Aquatic Resistance
Healthy aging, including diet, nutrition disease prevention, and application of aquatic resistance principles to maintain health while aging.

OAD MX10 — 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 MX11 — 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.

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, crewel 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.
CONTINUING EDUCATION

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 tote 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 tote 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.

OCCUPATIONAL — ADMINISTRATIVE JUSTICE

VOC ADJ01 — The Administration of Justice System
History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.

VOC ADJ02 — Principles and Procedures of the Justice System
Roles and responsibilities of each subsystem of the justice system; additional focus on relationships between system segments and sub-system procedures from initial incident to final disposition.

VOC ADJ03 — Concepts of Criminal Law
Provides an overview of California criminal law from the perspective of the law enforcement officer.

VOC ADJ04 — Legal Aspects of Evidence
Introduction to criminal evidence, including admissibility, witness competency, privileged communication, hearsay and collection and preservation of evidence.

VOC ADJ05 — Community Relations
A comprehensive exploration of community problems designed for individuals in public service with major emphasis on community-oriented policing. Reviews public service image, diversity issues, human relations and reactions, crisis areas and confrontations with the public.

VOC ADJ06 — Concepts of Enforcement Services
Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.

VOC ADJ13 — Concepts of Traffic Services
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.

VOC ADJ20 — Principles of Investigation
This course covers the fundamentals of investigation 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.

VOC ADJ38 — Narcotics Investigation
Investigation techniques for drug enforcement. Drug effects, use of informants, amendment issues and handling of evidence.

VOC ADJ59 — Street Gangs and Law Enforcement
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.

VOC ADJ68 — Administration of Justice Report Writing
Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

VOC ADJ74 — Vice Control
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.

OCCUPATIONAL — AGRICULTURAL SCIENCE

VOC AGG01 — Food Production, Land Use and Politics - A Global Perspective
Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food producing agriculture.
plants, woody ornamentals and fruits. Commercial techniques include plant propagation and production practices with emphasis on forists’ development.

VOC AGR02 — Plant Propagation/Greenhouse Management

Principles and practices in the selection and management of feeder, market and breeding beef cattle. Economics of production, utilization of farm-grown feeds, and feedlot operations will be stressed.

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 AGR06 — 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 AGR01 — 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 AGR02 — 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 sporling and division. Stress greenhouses and other environmental structures for plant propagation and production.

VOC AGR04 — Park Management

Management and operation of municipal park departments. Includes the development of budgets, purchasing, park policies, planning and scheduling.

VOC AGR05 — Park Facilities

Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities and golf courses.

VOC AGR13 — Landscape Design

Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites.

VOC AGR15 — Interior Landscaping

Design, installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use.

VOC AGR24 — Integrated Pest Management

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.

VOC AGR25 — Floral Design 1

Application of principles in the art of floral design as to form, style and professional design situations.

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 emphasized.

VOC AGR29 — 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 AGR30 — 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 AGR32 — Landscaping and Nursery Management

Operation and management of wholesale and retail nurseries. Includes the 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.

VOC AGR39 — Turf Grass Production and Management

Introduction to cultivation, maintenance and management of turf grasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural requirements and maintenance practices are emphasized.

VOC AGR40 — Sports Turf Management

Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes the surface on baseball, football, soccer, tennis, golf courses, driving ranges and other sports fields in both professional and amateur sports. Field trips are included.

VOC AGR50 — Soils Science and Management

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.

VOC AGR81 — Tractor and Landscape Equipment Operations

Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skip loader, skid steer loader, backhoe, lawnmowers, edgers, weed eaters, blower/vacuum, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.

VOC AGR82 — Hydraulics

Operation, maintenance and repair of hydraulic systems used on agriculture and industrial equipment. Emphasis: pumps, valves, cylinders, flow control, reservoirs, lines, motors and hydrostatic transmissions. Laboratory provides hands-on application of hydraulic systems.
CONTINUING EDUCATION

VOC AGR51 — Small Engine Repair 1
Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engines, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

VOC AGR55 — Diesel Engine Repair
Repair and maintenance of diesel engines used to power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining, servicing and repairing diesel engines.

VOC AGR56 — Engine Diagnostics
Analysis and evaluation of tractor power failure. Students gain actual 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 device 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 system.

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 hardscape featured in the landscape. Estimation and installation of fences, walls, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.

VOC AGR73 — Landscaping Laws, Contracting, and Estimating
Landscape laws, contracting and estimating as they pertain to landscape construction. Information covered will be helpful for Landscape Contractor’s (C-27 classification) licensing exam administered by the state of California. Students gain hands-on experience of contracting and running a business.

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 AGR77 — Pet Shop Management
The pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes organization and operation of pet shops, animal care practices, and sound business management practices.

VOC AGR71 — Canine Management
Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling, training and grooming of dogs.

VOC AGR72 — Feline Management
Care and management of cats. Includes breed identification and characteristics, grooming, showing, nutrition, practical care, behavior, breeding and housing.

VOC AGR73 — Tropical and Coldwater Fish Management
Care and keeping of marine and freshwater aquarium fishes, plants and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

VOC AGR74 — Reptile Management
Care and keeping of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding and raising of reptiles will be offered.

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.

OCCUPATIONAL — ARCHITECTURAL TECHNOLOGY

VOC ARC11 — Architectural Drawing
Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.

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 ARC28 — Architectural CAD 3-D Illustration and Animation
Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual “walk-through” and “fly-through” of interior/exterior 3-D models with photo-realistic materials and lighting will be produced. Students who repeat this course will improve skills through further instruction and practice.
Continuing Education

OCCUPATIONAL — BUSINESS

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 BA11 — 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.

VOC BA53 — Ten-Key Calculations
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.

VOC BA60 — Business Mathematics
Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.

VOC BA70 — Payroll and Tax Accounting
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.

VOC BA71 — Financial Planning
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.

VOC BA72 — Bookkeeping - Accounting
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.

VOC BA75 — Using Microcomputers in Financial Accounting
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.

VOC BA76 — Using Microcomputers in Managerial Accounting
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.

VOC BA77 — Principles of Accounting - Financial
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.

VOC BM10 — Principles of Continuous Quality Improvement
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.

VOC BM12 — Continuous Quality Improvement Team Building
Advisory Prerequisite: VOC BA 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.

VOC BM20 — Principles of Business
Overview of business and its functions, background, development, organization and opportunities. Business terms, current trends, methods, contemporary and future problems, and current business practices are covered.

VOC BM25 — Principles of E-Commerce
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.

VOC BM51 — Principles of International Business
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.

VOC BM52 — Principles of Exporting and Importing
Acquaints the student with the vocabulary, acronyms and the basic information needed for an understanding of and participating in the exporting and importing of goods and services.

VOC BM60 — Human Relations in Business
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 intrapersonal and interpersonal effectiveness with emphasis on communications, motivation, leadership and other related areas.

VOC BM61 — Business Organization and Management
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.

VOC BM62 — Human Resource Management
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.

VOC BM66 — Small Business Management
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.

VOC BM68 — Special Issues in Business
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.

VOC BO05 — Business English
Skills and techniques of English, as applied to business situations. Emphasis on effective paragraphs and memos.

CONTINUING EDUCATION
### VOC B025 — Business Communications
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.

### VOC B026 — Oral Communications for Business
Designed to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.

### VOC B096 — Spelling and Vocabulary for Success
Advisory Prerequisite: VOC B005
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.

### VOC B096A — Business Vocabulary
Develops a broad word command of new and specialized business vocabulary for use in various businesses. Improves vocabulary to enhance written and oral communication.

### VOC B552 — Real Estate Practice
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.

### VOC B535 — 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 B536 — 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 B550 — 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 B570 — International Marketing Concepts
Factors unique to foreign economics, cultural environments, political/legal problems, marketing intelligence procedures, international product policy, distribution and market channels, promotion and pricing decisions.

### VOC B585 — 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.

### OCCUPATIONAL — COMPUTER INFORMATION SYSTEMS

#### VOC CS11 — Computer Keyboarding
Develops alpha and numeric keyboarding skills on a personal computer at a straight-copy rate of 25 to 40 gross words with a predetermined error limit. Includes keyboarding of letters, tables and manuscripts. (Formerly VOC CP01)

#### VOC CS11A — Computer Keyboarding
Develops basic alpha and numeric keyboarding with skills on a personal computer at a straight-copy rate of 25 to 30 gross words a minute with a predetermined error limit. (Former VOC CP11A)

#### VOC CS11B — Computer Keyboarding
Develops straight-copy keyboarding rate of 25-40 gross words a minute with an error limit; includes letters, tables and reports. (Former VOC CP11B)

#### VOC CS12 — Intermediate Keyboarding
Develops computer keyboarding speed and accuracy with a proficiency standard upon completion of 35-55 gross words a minute with a predetermined error limit. Uses word processing software to format letters, memos, reports, tables and other related business documents. (Former VOC CP02)

#### VOC CS21 — Data Entry
Data entry using a microcomputer. Includes 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. (Former VOC CP18)

#### VOC CS41 — 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. (Formerly VOC CP28)

#### VOC CSB15 — Microcomputer Applications
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.

#### VOC CSB16 — Macintosh Applications
Macintosh computer skills including the operating system and word processing, database, spreadsheet and multimedia applications. (Former VOC CP10)

#### VOC CSB31 — Microsoft Word
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. (Former VOC CP20)

#### VOC CSB51 — Microsoft PowerPoint
Using PowerPoint to plan, design and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation and movies. (Former VOC CP50)

#### VOC CSB61 — Desktop Publishing Software
Using desktop publishing software to integrate text and various graphic objects, design, edit and produce a variety of high-quality business publications. (Former VOC CP60)

#### VOC CSW15 — Web Site Development
Use of a professional visual Web-authoring application to plan, develop, implement, publish and maintain Web sites. Includes working with text and images, internal and external hyperlinks, image maps, tables, Cascading Style sheets, Web page content, Web forms, multimedia objects (Flash text, Flash buttons, sounds and video), interactions and behaviors, and Web page templates. Principles of Web site structures, documentation, management and maintenance will be discussed. (Former VOC CP13)
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 2 times 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 2 times 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 CPCCC — 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 CPCL — Computer Laboratory
A lab study program designed to complement the lecture materials presented in computer program instructional courses.

VOC CPNET — Internet Research - An Introduction
Includes e-mail, research, terminology and functional capabilities of the Internet. Note: Registration is first-come, first-served. Students must register in person and may register for only one class per site.

VOC CP01 — Computer Keyboarding
Basic alpha/numeric keyboarding skills on a personal computer; develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit; includes keyboarding of letters, tables and manuscripts.

VOC CN50 — PC Operating Systems
Current operating systems required for A+ and Network+ Certification and general computer servicing. Topics include: identification of major components, installation, configuration, upgrading and troubleshooting.

VOC CN52 — PC Troubleshooting
Advanced microcomputer servicing. Includes: isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.

VOC CN60 — A+ Certification Preparation
Prepares the student and qualified computer technician for the A+ certification examination. All aspects of the Core and OS test modules will be stressed through both lecture review and test simulation software.

VOC CN62 — Network+ Certification Preparation
Prepares the student and/or A+ certified technician for the Network+ Certification Examination. Individuals preparing for a job in the computer networking industry or who wish to become Network+ certified will find this course invaluable.

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 CRS22 — 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.

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
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
AC circuit theory covering inductors, capacitors, impedance, filters, decibels, and resonance. Analysis involves the use of complex numbers. Stresses passive components.
Continuing Education

**VOC ELS1 — 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 ELS3 — 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 ELS4A — 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 UJT devices.

**VOC ELS4B — 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 ELS5 — 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 ELS6 — 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 complex laboratory projects and experiments.

**VOC EM65A — Mathematics of Electronics- DC**  
Mathematics of DC circuits analyzing passive circuits including Ohm’s Law, Kirchoff’s Law, voltage dividers, current dividers, and network theorems.

**VOC EM65B — Mathematics of Electronics - AC**  
Mathematics of AC circuits analyzing passive circuits including resistance, reactance, impedance, resonance, and complex numbers (polar and rectangular).

**VOC TCH60 — Customer Relations for the Technician**  
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.

**VOC ELS11 — Technical Engineering - Drawing 1**  
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.

**VOC ELS12 — Technical Engineering Drawing 2**  
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.

**VOC ELS14 — Mechanical Design - Geometric Dimensioning and Tolerancing**  
Use 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EDT16</td>
<td>Basic CAD and Computer Applications</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). Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>VOC EDT18</td>
<td>Engineering CAD Applications</td>
<td>Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms.</td>
</tr>
<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>
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**OCCUPATIONAL — FASHION AND FASHION DESIGN**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>VOC FSH08</td>
<td>Introduction to Fashion</td>
<td>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.</td>
</tr>
<tr>
<td>VOC FSH09</td>
<td>History of Costume and 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 FSH10</td>
<td>Clothing Construction 1</td>
<td>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.</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 dress 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 FSH30</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 FSH31</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 FSH33</td>
<td>Retail Store Management and Merchandising</td>
<td>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.</td>
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</tbody>
</table>

**OCCUPATIONAL — GEOGRAPHY**

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<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<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>
</tbody>
</table>
Continuing Education

OCCUPATIONAL — HEALTH

VOC ANA50 — Basic Anatomy and Physiology
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.

VOC CPR01 — BLS Heartsaver Course - Adult
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.

VOC HTH01 — Certified Nursing Assistant
Prepares participant to work in a skilled nursing facility and pass California Long-Term Care CNA exam.
Prerequisites:
- 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
Co-requisite: Enrollment in VOC HTH05

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 HTH05 — Health Careers Resource Center
Provides health occupational students with instructional media and equipment to practice and improve nursing and other health occupation competencies.

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
Conerequisite: 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 RDTEC — Interavenous 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.
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<tr>
<td>VOC HRM56</td>
<td>Management of Hospitality Personnel and Operations</td>
<td>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 and performance appraisal of employees; decision making, leadership and planning.</td>
</tr>
<tr>
<td>VOC HRM57</td>
<td>Restaurant Cost Control</td>
<td>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.</td>
</tr>
<tr>
<td>VOC HRM58</td>
<td>Fast Food Service Management</td>
<td>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.</td>
</tr>
<tr>
<td>VOC HRM60</td>
<td>Purchasing for the Restaurant Industry</td>
<td>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.</td>
</tr>
<tr>
<td>VOC HRM61</td>
<td>Menu Planning</td>
<td>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.</td>
</tr>
<tr>
<td>VOC HRM62</td>
<td>Catering</td>
<td>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.</td>
</tr>
<tr>
<td>VOC HRM64</td>
<td>Hospitality Financial Accounting</td>
<td>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.</td>
</tr>
<tr>
<td>VOC HRM66</td>
<td>Hospitality Law</td>
<td>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.</td>
</tr>
<tr>
<td>VOC HRM70</td>
<td>Introduction to Lodging</td>
<td>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 (RST 91, 92, 93 or 94) is needed for articulation to California Polytechnic State University.</td>
</tr>
<tr>
<td>VOC MF10 — Mathematics &amp; Blueprint Reading for Manufacturing</td>
<td>Application of mathematical principles, including fractions, decimals, ratio/proportion, geometry and trigonometry to manufacturing problems and their solutions. Reading and interpreting part drawings, assembly drawings and sketches used in the manufacturing industry.</td>
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<tr>
<td>VOC MF15 — AutoCAD 2D</td>
<td>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>
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<tr>
<td>VOC MF17 — 3-D CAD for Mechanical Modeling</td>
<td>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.</td>
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<tr>
<td>VOC MF25 — Advanced Parametric Solid Modeling for Desktop</td>
<td>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.</td>
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<tr>
<td>VOC MF27 — AutoDesk Inventor</td>
<td>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>
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</tr>
<tr>
<td>VOC MF30 — MasterCAM 1</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>VOC MF31 — Advanced MasterCAM</td>
<td>Use MasterCAM software to create wire-frame 3D/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.</td>
<td></td>
</tr>
<tr>
<td>VOC MF37 — MasterCAM Solids</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>VOC MF38C — MasterCAM Solids</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
Continuing Education

**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.

**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 — Photoshop Imagery**
Adobe Photoshop software skills, techniques and digital workflow practices from digital image editing and retouching to the composited imagery commonly created for use in advertising, commercial design, printing and publishing, the Internet and multimedia authoring production.

**VOC GRP12 — Photoshop Imagery Extended**
Adobe Photoshop Extended software skills and techniques for the creative photorealistic imagery commonly used in photography, commercial design, printing and publishing, the Internet and multimedia authoring production.

**VOC GRP14 — Digital Color Management**
Advanced techniques of digital photo color management systems and workflow. System color architectures, monitors, printers, proofers 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.

**VOC GRP16 — Illustrator Graphics**
Adobe Illustrator software skills, techniques and digital workflow from essential digital drawing basics to creatively conceived illustrative imagery and renderings commonly created for use in commercial design, printing and publishing, the Internet and multimedia authoring production.

**VOC GRP18 — 3D Graphics Imagery**
3D graphics modeling software skills and production techniques from 2D orthographic drawing to the creatively conceived 3D imagery and animated environments commonly created for self-expression, entertainment, commercial design, printing and publishing, the Internet and multimedia authoring production.

**VOC GRP20 — Multimedia Graphics**
Multimedia graphics software skills and production techniques for combining text, image, audio, video, animation and scripting media to author multimedia projects commonly created for self-expression, entertainment, commercial design, the Internet and multimedia production.

**VOC GRP28 — Digital Portfolio**
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.

**VOC GRP48 — Introduction to Digital Design Systems**
Introduction to digital design 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.

**VOC PHO01 — Laboratory Studies in Black & White Photography**
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.

**VOC PHO02 — Laboratory Studies: Color Photography**
Extended color laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments. Students who repeat this course will improve skills through further instruction and practice.

**VOC PHO04 — Digital Cameras and Composition**
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.

**VOC PHO10 — Basic Digital & Film Photography**
The basic mechanical, optical and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output techniques.

**VOC PHO11 — Advanced Professional Photography**
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.
VOC PHO12 — Photographic Alternatives
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.

VOC PHO15 — History of Photography
Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

VOC PHO16 — Fashion Photography
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.

VOC PHO17 — Photocommunication
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.

VOC PHO18 — Portraiture and Wedding Photography
Techniques and photographic procedures for taking informal, formal, environmental and group portraits. In-depth study and practice in professional wedding photography.

VOC PHO20 — Color Photography
An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.

VOC PHO21 — Exploring Color Photography
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.

VOC PHO28 — Photography Portfolio Development
Development of photography portfolio either for job application or gallery exhibition purposes.

VOC PHO30 — Commercial & Illustrative Photography
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.

OCCUPATIONAL — SERVICE LEARNING

VOC SL1 — Service Learning/Seminar for Health Occupations
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 maybe offered. Out-of-class projects required.

VOC SL3 — Service Learning/Seminar in Community Involvement
Examines and profiles community needs through service learning. Explores and allows students to directly interface with community populations. Permits the opportunity to explore various career options through community service. Enriches personal and career development through understanding of civic and social issues.

VOC SL4 — Service Learning and Community Involvement
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.

OCCUPATIONAL — STAINED GLASS PRODUCTION

VOC SGL1 — 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 SGL2 — Advanced Stained Glass
Advanced stained glass techniques will include the construction of windows, lampshades and/or specialized gift items. 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 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.

VOC THR19 — Theatrical Costuming
Theatrical costuming 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 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. Field trips are required.
### OCCUPATIONAL — TUTOR TRAINING

**VOC TR10A — Introduction to Tutoring**
Introduction to tutoring, with an emphasis on tutoring strategies, problem solving and working with a diverse student population.

**VOC TR10B — Tutoring in the Language Arts**
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.

**VOC TR10C — Tutoring as a Supplemental Instructor**
Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

**VOC TR10D — Tutoring in Mathematics**
Tutoring in mathematics with an emphasis on strategies to promote active learning and dealing with specific obstacles in developmental algebra.

**VOC TR10E — Tutoring in Reading**
Methods of assessment, management of sessions and application of strategic reading processes. This course prepares students to become reading tutors for all READ students.

### OCCUPATIONAL — WELDING

**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 Arc 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 matter, 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 (SMAW) 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 SMAW 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 WL70D — 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, GRAW, GMAW, FCAW on a variety of materials and configurations on sub-critical and critical piping and tubing.

**VOC WL90A — Gas Tungsten Arc Welding**
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 (SAW) 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 (MIG), Gas Tungsten Arc (GTAW), Plasma Arc cutting and oxyfuel cutting and welding will be covered.
**COLLEGE POLICIES**

**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 626.6 (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 and Other Attendees**

Classroom activities are intended to benefit those students officially registered for the class. Others are permitted to attend a regularly scheduled class meeting only in specific situations. The professor assigned to teach the class may grant permission to visit the class. 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.

- Individuals having a doctor's verification that allows them to park in zones designated as "handicapped parking" 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. Students having a current "Disabled Person" permit and placard or a "DP" license plate from the State of California Department of Motor Vehicles are not required to purchase a student parking permit. They are allowed to park in any parking space designated as "handicapped parking" at any metered space (at no cost), or any time limited space (without having to observe the time limit specified). Everyone parking in "handicapped parking zones" must ensure that the placard or license plate is displayed properly.

**Eye Protection**

Pursuant to the Education Code, the following regulation regarding eye protective devices shall be observed: Students, teachers, and visitors shall be 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.

**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.

- Individuals having a doctor's verification that allows them to park in zones designated as "handicapped parking" 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. Students having a current "Disabled Person" permit and placard or a "DP" license plate from the State of California Department of Motor Vehicles are not required to purchase a student parking permit. They are allowed to park in any parking space designated as "handicapped parking" at any metered space (at no cost), or any time limited space (without having to observe the time limit specified). Everyone parking in "handicapped parking zones" must ensure that the placard or license plate is displayed properly.

**Eye Protection**

Pursuant to the Education Code, the following regulation regarding eye protective devices shall be observed: Students, teachers, and visitors shall be 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.

**Police Protection**

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**Cheating and Plagiarism**

**Cheating**

Cheating refers to the act of attempting to gain an unfair advantage or to deceive others by violating established rules and regulations. Cheating is considered a serious violation of academic integrity and may result in disciplinary action, including failing grades, suspension, or expulsion.

**Plagiarism**

Plagiarism involves using someone else's work without giving proper credit. This can include copying, paraphrasing, or summarizing without acknowledging the source. Plagiarism can take many forms, such as using someone else's words or ideas without giving credit, or using other people's work without proper citation.

**Honesty**

While Mt. San Antonio College promotes a culture of academic honesty, it recognizes that sometimes students may not fully understand the consequences of their actions. The College provides resources and support to help students understand the importance of academic honesty and how to avoid committing academic dishonesty.
“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 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 is committed to equal opportunity in educational programs, employment, and all access to institutional programs and activities. The College provides an educational and employment environment in which no person shall be unlawfully denied full and equal access to, the benefits of, or be unlawfully subjected to discrimination on the basis of ethnic group identification, national origin, religion, age, sex or gender, sexual orientation, race, color, ancestry, medical condition, marital status, veteran status, sexual orientation, or physical or mental disability (including HIV and AIDS), or on the basis of these perceived characteristics or based on association with a person or group with one or more of these actual or perceived characteristics, in any program or activity that is administered by the College. The lack of English language skills will not be a barrier to admission.

Students who believe they have been discriminated against may begin the process with the Dean, Student Services, located in Building 9C. Students may access the Unlawful Discrimination Complaint Form at www.mtsac.edu/students/studentlife or go directly to the office of Human Resources. All complaints of unlawful discrimination or sexual harassment by students of the College will be fully investigated by Human Resources.

College employees have similar rights which can be found in the College’s Board Policy and Administrative Procedures.

**Annette Loria, Vice President**

Human Resources/Equal Employment Opportunity Officer
ADA/504 Compliance Officer
Human Resources Office
Ext. 4225

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**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 victim 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.
- **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. Caus ing, 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, use, sale, 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. Lewd, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.
### College Policies and Notices

| 16. Engaging in expression which is obscene, libelous or slanderous; or which so incites students as to create a clear and present danger of the commission 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 contemporary 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. | 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, Hilmer Lodge Stadium, and in all college vehicles.

#### Accommodations and 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 Board Policy and Administrative Procedure for Individuals with Disabilities may be found at the following links:

- [www.mtsac.edu/administration/trustees/policies/bp_complete.pdf#bp5](http://www.mtsac.edu/administration/trustees/policies/bp_complete.pdf#bp5)
- [www.mtsac.edu/administration/trustees/administrative_procedures.pdf](http://www.mtsac.edu/administration/trustees/administrative_procedures.pdf)

#### 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 S6060, 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 & AIDS), sexual orientation, or Vietnam Era Veteran Status.

#### Scholarships

Scholarships are available to qualified applicants. Additionally, 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.

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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 above.

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, 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 Sheriff’s 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 consist 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 during normal business hours, located in Building 4.

Hate Crimes

Hate Crimes - Disability 0 0 0
Hate Crimes - Ethnicity 0 0 0
Hate Crimes - Religion 0 0 0
Hate Crimes - Race 0 0 0

Illegal Weapons Violations

2 1 0

Drug Law Violations

4 2 1

Sex Offenses - Non-Forcible

1 0 0

Sex Offenses - Forcible

0 0 0

Theft from Vehicle

20 12 45

Theft

68 53 53

Arson

0 0 0

Vandalism

26 14 31

Liquor Law Violations

1 3 4

Drug Law Violations

4 2 1

Illegal Weapons Violations

2 1 0

Hate Crimes - Race

0 0 0

Hate Crimes - Gender

0 0 0

Hate Crimes - Religion

0 0 0

Hate Crimes - Sexual Orientation

0 0 0

Hate Crimes - Ethnicity

0 0 0

Hate Crimes - Disability

0 0 0

Yearly Totals

178 144 188

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 thirteen

Faculty and Academic Administrators
A
Albertson, Toni (2006)
English, Literature & Journalism
B.A., University of La Verne
M.A., University of Nebraska

Alexander, Carolyn (1991)
Fine Arts
B.A., Scripps College
M.F.A., Tyler School of Art, Temple University

Allen, Jerry B. (1971)
Geography & Political Science
B.A., M.A., Brigham Young University
Ph.D., Claremont Graduate School
J.D., Loyola University School of Law

Allende, Kristina (2001)
English, Literature & Journalism
A.A., Mt. San Antonio College
B.A., M.A., California State University, Fullerton

Consumer & Design Technologies
B.S., California State University, Fullerton

Alvarez, Hansel (2007)
English, Literature & Journalism
B.A., California State University, San Bernardino
M.A., California State Polytechnic University, Pomona

Alvarenga-Shaw, Maya (2000)
English, Literature & Journalism
B.A., California State University, Los Angeles
M.A., California State Polytechnic University, Pomona
Ph.D., University of Southern California

Ammirato, Joseph S. (1997)
Commercial and Entertainment Arts
B.F.A., University of Utah

Andersen, Alison (2006)
Biological Sciences
B.S., California State University, Bakersfield
M.S., California State Polytechnic University, San Luis Obispo

Anderson, Cynthia B. (1986)
Biological Sciences
B.S., Arizona State University
M.S., University of Illinois

Physiology, Engineering
B.S., University of California, Los Angeles
M.S., California State Polytechnic University, Pomona

Anderson, Richard (1992)
Air Conditioning & Welding
A.S., Mt. San Antonio College

Anderson-Perry, Carolyn (2004)
Nursing
A.S.N., Los Angeles Southwest College
B.S.N., California State University, Dominguez Hills
M.S.N., University of Phoenix

Andrade, Renée (1984)
Foreign Languages
A.A., Los Angeles City College
B.A., California State University, Los Angeles
M.A., Ph.D., University of California, Irvine

Andrews, Barry (2001)
Computer Information Systems
B.S., Indiana University
M.S., California State University, Fullerton

Ano, Gene (2006)
Psychology, Education
M.A., Ph.D., Bowling Green State University

Aquino, Lloyd (2007)
English, Literature & Journalism
B.A., M.A. California State Polytechnic University, Pomona

Arbello, Madelyn A. (1998)
Director, Adult Basic Education
B.A., Pitzer College
M.A., California State University, Los Angeles

Archibald, Jeffrey D. (2000)
Communication
B.A., Cornell University
M.S., Illinois State University

Arnold, Robert (2008)
Sign Language & Interpreting
B.A., California State University, Northridge
M.A., Gallaudet University

Arterburn, Pamela (1986)
English, Literature & Journalism
B.A., M.A., California State Polytechnic University, Pomona

Arvidson-Perkins, Genevieve (1988)
Nursing
A.S.N., Mt. San Antonio College
B.S.N., California State University, Fullerton
M.S.N., California State University, Los Angeles

Avila, Rocio (2006)
English, Literature & Journalism
B.A., California State Polytechnic University, Pomona
M.A., California State University, Fullerton

Bacigalupi, Stacy (2006)
Psychology, Education
B.A., University of California, Santa Barbara
M.A., California State University, Fullerton

Barr, Dustin (2008)
Music
B.M., M.M., California State University, Fullerton

Bartman, Sydney (1986)
English, Literature & Journalism
A.A., Mt. San Antonio College
B.A., University of La Verne
M.A., University of California, Riverside

Beam, Teresa (1991)
Chemistry
B.S., Ohio University
M.S., California State University, Fullerton

Becker, Liza (1998)
Director, ESL
B.A., California State University, Los Angeles
M.S., California State University, Fullerton
Ed.D., California State University, Long Beach

Beydler, David (2011)
Mathematics
B.S., Harvey Mudd
M.S., California State University, Los Angeles

Birck, Alina (2005)
Mathematics, Computer Science
B.S., University of Missouri
M.A., California State University, San Bernardino

Blake-Judd, Jemma (1990)
Associate Dean, Technology & Health
B.A., M.A., California State Polytechnic University, Pomona

Blyzka, John V. (2001)
Computer Information Systems
B.S., University of California, Irvine
M.S., California State University, Fullerton

Boehner-Staylor, Maya (2001)
English, Literature & Journalism
B.A., California State University, Los Angeles
M.A., Northwest Missouri State University

Borella, Frances (1999)
Biological Sciences
A.A., Mt. San Antonio College
B.S., California State Polytechnic University, Pomona
M.A., Ph.D., University of California, Riverside

Boryta, Mark (2001)
Earth Sciences, Astronomy
B.A., Amherst College
M.S., Ph.D., New Mexico Institute of Mining and Technology

Bowen, Melinda (2006)
Physical Education/Head Coach, Women's Soccer
B.A., California State Polytechnic, Pomona
M.A., Azusa Pacific University

Bowen, Robert (2006)
Music
B.A., M.A., University of California, Santa Barbara
M.F.A., Ph.D., Princeton University

Bartman, Sydney (1986)
English, Literature & Journalism
A.A., Mt. San Antonio College
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Beam, Teresa (1991)
Chemistry
B.S., Ohio University
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Becker, Liza (1998)
Director, ESL
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Ed.D., California State University, Long Beach

Beydler, David (2011)
Mathematics
B.S., Harvey Mudd
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Birck, Alina (2005)
Mathematics, Computer Science
B.S., University of Missouri
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Blake-Judd, Jemma (1990)
Associate Dean, Technology & Health
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Blyzka, John V. (2001)
Computer Information Systems
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Borella, Frances (1999)
Biological Sciences
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Boryta, Mark (2001)
Earth Sciences, Astronomy
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M.S., Ph.D., New Mexico Institute of Mining and Technology

Bowen, Melinda (2006)
Physical Education/Head Coach, Women's Soccer
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M.A., Azusa Pacific University

Bowen, Robert (2006)
Music
B.A., M.A., University of California, Santa Barbara
M.F.A., Ph.D., Princeton University
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<td>Nursing</td>
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<td>English, Literature &amp; Journalism</td>
<td>B.A., Southern Illinois University, M.A., Drake University, Ph.D., University of Nebraska</td>
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<td>Scientific Earth Sciences, Astronomy</td>
<td>M.S., University of Nebraska</td>
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<td>Disabled Student Programs &amp; Services</td>
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<td>English, Literature &amp; Journalism</td>
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<td>Braver, Lane (1997)</td>
<td>Medical Services</td>
<td>A.A., Santa Monica College, A.S., U.S.C. School of Medicine M.S.H.P.E, Western University, Pomona</td>
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<td>Earth Sciences, Astronomy</td>
<td>B.A., California State Polytechnic University, Pomona M.S., University of Southern California</td>
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<td>American Language</td>
<td>B.A., Dana College M.S., University of Nebraska TESOL Certificate, California State University, Fullerton</td>
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<td>English, Literature &amp; Journalism</td>
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<td>Burley, Virginia (1986)</td>
<td>Vice President, Instruction</td>
<td>B.A., California State University, Northridge M.A., Ph.D., Claremont Graduate University</td>
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<td>Burman, Ema (2007)</td>
<td>Learning Assistance</td>
<td>B.S., M.Ed., University of La Verne</td>
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<td>Fine Arts</td>
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<td>Foreign Languages</td>
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<td>Interim Associate Dean, Physical Education / Associate Athletic Director</td>
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<td>B.A., California State University, Long Beach M.A., California State University, Fullerton Ed.D., University of La Verne</td>
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<td>History &amp; Art History</td>
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<td>Nursing</td>
<td>A.D.N., National Taipei College of Nursing B.S.N., Kaohsiung Medical College M.A., Oklahoma City University M.N., University of California, Los Angeles Lifetime Instructor Credential, National Taiwan Normal University</td>
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<td>Earth Sciences, Astronomy</td>
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The Faculty

Churchill, Peter (2005)
   English, Literature & Journalism
   B.A., M.A., California State University, Fullerton

Condra, Denise (2006)
   Nursing
   B.A., Whittier College
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Cooper Mark J. (1997)
   Biological Sciences
   B.S., M.S., California State Polytechnic University, Pomona

Coreas, Kelly (2000)
   Respiratory Therapy
   A.S., East Los Angeles College
   B.S., Loma Linda University
   M.S., Western University Pomona

   Child Development
   B.S., California State University, Fullerton
   M.S., Pacific Oaks College

Daland, William (2005)
   Counseling
   B.A., California State University, Fullerton
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Daum, Sarah (1998)
   Dean, Technology & Health
   A.B., Stanford University
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Davis, Maria (2005)
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   B.A., American InterContinential University

Detyatureva, Anna (1999)
   Computer Information Systems
   B.S., M.S., Leningrad University for Economics
   Engineers
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Deines, Craig B. (1997)
   Fine Arts
   B.A., M.F.A., Central Washington University

Denny, Joseph (2010)
   Electronics and Computer Technology
   B.A., Azusa Pacific University
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DePaola, Gina (1991)
   English, Literature & Journalism
   B.S., Metropolitan State College, Denver
   M.S., California State University, Long Beach

Diem, Andrea (1991)
   Sociology, Philosophy
   B.A., University of California, San Diego
   M.S., University of California, Santa Barbara

Di Mauro, Eileen (1991)
   Chemistry
   B.A., University of California, Santa Barbara
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Distant, Debbie (2000)
   Librarian
   B.A., Morningside College
   M.A., University of Iowa

Domico, Brenda L. (1997)
   Accounting & Management
   B.S., M.B.A., California State Polytechnic University, Pomona
   Certified Managerial Accountant

Dorough, George D. (1991)
   Sign Language
   A.A., Rochester Institute of Technology
   B.A., M.Ed., University of Massachusetts

Dougherty, Michelle (2007)
   English, Literature & Journalism
   B.A., M.A., California State Polytechnic University, Pomona

Dowdle, Michael (2005)
   Psychology, Education
   A.A., Butte Community College
   B.A., M.A., California State Polytechnic University, Chico

Dua, Amrik Singh (1990)
   Business Administration
   B.A., M.A., Panjab University
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   Ph.D., Southeastern University

Earhart, Kimberly (2005)
   History & Art History
   A.A., Riverside Community College
   B.A., M.A., Ph.D., University of California, Riverside
   Eastman, Ralph M. (1980)
   Theater
   B.A., Antioch College, Ohio
   M.A., Trinity College, Connecticut
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Eatman, Elizabeth (2006)
   Consumer & Design Technologies
   B.F.A., California State University, Long Beach

Edson, Thomas (2006)
   English, Literature & Journalism
   B.A., University of California, Irvine
   M.A., Chapman University

Edwards, William (2005)
   Mathematics, Computer Sciences
   B.S., M.S., California State Polytechnic University, Pomona

Eisley, Benjamin N. (1990)
   Air Conditioning & Welding
   A.A., Cerritos College
   B.S., M.S., Eastern Michigan University

Ellwood, Jeffrey (2006)
   Music
   B.M., Berklee College of Music
   M.M., California State University, Fullerton

Emanuel, Elaine S. (1998)
   Computer Information Systems
   A.S., Mt. San Antonio College
   B.S., University of La Verne
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Engisch, Paulette (2003)
   Radiologic Technology
   A.S., Mt. San Antonio College
   B.S., University of St. Francis California
   C.R.T., Certified Radiologic Technologist California
   Certified Mammographer
   R.T., American Registry of Radiologic Technology
   R.T. (M), American Registry of Mammography

Engle, Tim (2006)
   Disabled Student Programs & Services
   B.S., Liberty University, Lynchburg, VA
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Enke, Gary D. (1990)
   English, Literature & Journalism
   B.A., St. Joseph College
   M.A., Claremont Graduate School

Esslinger, Sandra (2002)
   History & Art History
   M.A., University of Southern California
   Ph.D., University of California, Los Angeles

Estes Jr., Edwin (2008)
   Business Administration
   A.B., University of Southern California
   J.D., Pepperdine University School of Law
   Member, California Bar Association

Estrada, Maria (2004)
   English, Literature & Journalism
   B.A., M.A., California State Polytechnic University, Pomona

Ezzell, Sun (2006)
   Learning Assistance
   B.A., M.A., Humboldt State University

Faraone, Teresa M. (1999)
   Consumer & Design Technologies
   B.A., M.A., California State University, Los Angeles

Farve, Debra (1988)
   English, Literature & Journalism
   B.A., Xavier University
   M.A., University of Notre Dame
   Ed.D., University of Southern California

Felix, Diana (2011)
   Counseling
   B.A., University of California, Santa Barbara
   M.S., California State University, Long Beach

Fiorito, Arleen M. (2000)
   Nursing
   A.S., A.A., Mt. San Antonio College
   B.S.N., M.S.N., CNS, California State University, Dominguez Hills
   FNP, Azusa Pacific University
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<td>Foster, Dyrell W. (2004)</td>
<td>Associate Dean, Counseling</td>
<td>B.S. University of California, Davis, M.S., California State University, Fullerton Ed.D., University of Southern California</td>
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<td>Frickert, Allison (2008)</td>
<td>History &amp; Art History</td>
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<td>Fulbright Dennis, Wanda (1990)</td>
<td>Counseling</td>
<td>B.A., Fresno Pacific College, M.S., California State University, Los Angeles Ed.D., University of La Verne</td>
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<td>Sociology, Philosophy</td>
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<td>Agricultural Sciences</td>
<td>B.S., California State Polytechnic University, Pomona</td>
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<td>Chemistry</td>
<td>B.S., B.S., M.S., California State Polytechnic University, Pomona</td>
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<td>Gonzalez, Gail (1999)</td>
<td>Mental Health Technology</td>
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<td>Greco, Victoria (1999)</td>
<td>Disabled Student Programs &amp; Services</td>
<td>B.A., California State University, Fullerton, M.A., California State University, San Bernardino</td>
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<td>Hagner, Dirk (2007)</td>
<td>Fine Arts</td>
<td>M.A., University of Essen, Duisburg, Germany</td>
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<td>Halabi, Solene (2008)</td>
<td>Foreign Languages</td>
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<td>Hall, Martha (2007)</td>
<td>Learning Assistance</td>
<td>B.A., University of California, Riverside, M.A., Claremont Graduate University</td>
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<td>Hanson, Grace (1996)</td>
<td>Director, Disabled Student Programs &amp; Services</td>
<td>B.A., M.A., California State University, Long Beach Transition Services for Individual with Disabilities Certificate</td>
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<td>Hatch, Rebecca (2001)</td>
<td>Sociology, Philosophy</td>
<td>B.A., California Lutheran University, M.S., Ph.D., University of Southern California</td>
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<td>Heard, Lance (2008)</td>
<td>Public Services</td>
<td>B.S., United States Military Academy, West Point, M.S., University of Cincinnati</td>
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<td>Hernandez, Alina (1988)</td>
<td>Counseling</td>
<td>A.A., Santa Ana Community College, B.A., M.A., California State University, Fullerton, Ph.D., University of Southern California</td>
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<td>Hernandez, Corie (2011)</td>
<td>Psychiatric Technician</td>
<td>B.S., California State University, Fullerton</td>
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<td>Herrera, Irene (2000)</td>
<td>Director, EOPS</td>
<td>B.S., California State University, Fullerton, M.S., California State University, Los Angeles</td>
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| **Hill-Enriquez, Evelyn (1991)**  
American Language  
A.A., Mt. San Antonio College  
B.A., M.A., California State University, Fullerton  
TESOL Certificate |
| **Hoover, Karelyn (1995)**  
Hood, Michael (2009)  
Earth Sciences, Astronomy  
B.S., University of Wisconsin-Madison  
M.S., University of California, Irvine |
| **Ho, Robert I. (1984)**  
Architecture & Engineering Design Technology  
B.S.E., California State University, Pomona  
M.A., West Coast University |
| **Hogann, Lynda Smith (1996)**  
Biological Sciences  
B.S., Slippery Rock University  
M.P.H., University of California, Los Angeles |
| **Hood, Michael (2009)**  
B.S., University of California, Irvine |
| **Hoffman, Ruth Jean (1997)**  
Agricultural Sciences  
A.S., Mt. San Antonio College  
B.S., California State University, San Bernardino |
| **Ho, Robert I. (1984)**  
M.A., University of California, Los Angeles  
B.S., M.S., New Mexico Institute of Mining & Technology |
English, Literature & Journalism  
B.A., University of California, Davis  
M.A., University of Wyoming  
Ph.D., Louisiana State University |
| **Hosea, Phewe (2007)**  
Mathematics, Computer Science  
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| **Howell, Luisa (2002)**  
Foreign Languages  
B.A., M.A., California State University, Sacramento |
| **Hseih, Mei Ling (2011)**  
Chemistry  
M.S., California State University, Long Beach  
Ph.D., University of California, Santa Barbara |
| **Huang, Kenneth (2006)**  
M.A., West Texas State University  
Computer Information Systems  
B.A., University of California, Davis |
| **Hughes, Douglas (1999)**  
Child Development  
A.A., San Diego City College  
B.A., M.A., Pacific Oaks College |
| **Hymer, Jonathan (2005)**  
Electronics & Computer Technology  
B.A., University of California, Davis  
M.S., University of Maryland |
| **Impara, Carol (2005)**  
Consumer & Design Technologies  
B.A., Davidson College  
M.S., University of Maryland |
| **Jackson, Christopher (2005)**  
Physical Education /  
Head Coach, Women's Water Polo and Swimming  
B.S., California State University, Fullerton  
M.S., Azusa Pacific University |
| **Jagodka, Ralph F. (1997)**  
Accounting & Management  
B.S., Western Illinois University  
M.B.A., Pepperdine University  
Ed.D., University of La Verne |
| **Jastrab, Robert (2001)**  
Physical Education /  
Head Coach, Men's Football  
B.A., University of Miami  
M.S., University of Nevada |
| **Jeffers, Bonnie H. (1997)**  
Accounting & Management  
A.A., Ceritos College  
B.A., M.A., California State University, Fullerton |
| **Jefferson, Paul (2001)**  
Public Services  
A.S., Los Angeles City College  
B.S., Pepperdine University  
M.A., John F. Kennedy University |
| **Jenkins, James D. (1992)**  
Assoc. Dean, Humanities & Social Sciences  
B.A., M.A., California State Polytechnic University, Pomona |
| **Jennun III, Joseph E. (1997)**  
Dean, Physical Education /  
Athletic Director  
B.S., California State Polytechnic University, Pomona  
M.S., California State University, Fullerton |
| **Johnson, Mary T. (1997)**  
Computer Information Systems  
B.A., California State University, Fullerton  
M.S., Azusa Pacific University |
| **Johnson, Michelle (1998)**  
Mathematics, Computer Science  
B.S., M.S., University of California, Irvine |
History & Art History  
A.A., Mt. San Antonio College  
B.A., University of California, Los Angeles  
M.A., Ph.D., Claremont Graduate School |
| **Judd, Matthew T. (1990)**  
Interim Associate Dean, Natural Sciences  
B.A., University of California, Berkeley  
M.A., Claremont Graduate School |
| **K** |
| **Kakiba-Russell, Karyn N. (1990)**  
Biological Sciences  
B.S., M.S., California State University, Los Angeles |
| **Kalijumagi, Eric (1999)**  
Learning Assistance  
B.S., University of California, Davis  
M.A.T., University of California, Davis |
| **Kamaka, Ron (2006)**  
Physical Education /  
Assistant Coach, Cross Country and Track and Field  
B.A., Sonoma State University  
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| **Karn, Tamara (2001)**  
English, Literature & Journalism  
B.A., University of California, Los Angeles  
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Foreign Languages  
A.A., Mt. San Antonio College  
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| **Keys, S. Carolyn (2001)**  
Dean, Student Services  
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| **Khan, M. Zahir (1990)**  
Physics & Engineering  
B.E., University of Poona  
M.S., Ohio State University  
Registered Professional Engineer |
| **Khoddam, Kambiz (1999)**  
Mathematics, Computer Science  
B.S., M.A., California State University, Long Beach |
| **Kido, Janine (2005)**  
Biological Sciences  
B.A., M.S., California State University, Fullerton |
Mathematics, Computer Science  
B.S., M.S., California State University, San Diego |
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<td>King, Nancy L.</td>
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<td>Counseling</td>
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<td>1999</td>
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<td>Geography &amp; Political Science</td>
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<td>Geography &amp; Political Science</td>
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<td>2010</td>
<td>Vice President, Human Resources</td>
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Munro, Matthew J. (1998)
Mathematics, Computer Science
B.S., University of Washington
M.A., University of Colorado
Myers, Richard (2011)
English
B.S., University of La Verne
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Nguyen, Bao-Chi (2010)


McMullin, Janet (1999)
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B.S., M.S., Northern Illinois University

McPhail, Yuki (1992)
Foreign Languages
B.A., Carthage College, Wisconsin
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Ma, Jannie (2008)
Learning Assistance
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MacDonald, Jennifer (2001)
Program Director, Histologic Technician
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Maestro, Patricia (2004)
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Mageean, Michael (2000)
English, Literature & Journalism
B.A., M.A., California State Polytechnic University, Pomona
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Marano, Americo (1986)
Foreign Languages
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Mason, Martin (2002)
Physics, Engineering
B.S., University of California, Riverside
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Masoomian, Rasool (2001)
Business Administration
M.S., M.A., Ph.D., State University of New York

Mauch, Thomas (2005)
Dean, Counseling
B.A., California State Polytechnic University, Pomona
M.S., California State University, Fullerton

Maynard, Philip D. (1990)
Communication
B.A., M.A., California State University, Fresno

Counseling
B.A., California State Polytechnic University, Pomona
M.S., California State University, Los Angeles

Medina, David (1994)
Sociology, Philosophy
B.A., M.A., California State University, Fullerton

Megglin, Nancy (1998)
Mental Health Technology
B.S.N., University of Phoenix
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Mehta, Jaiishi (1999)
Computer Information Systems
B.A., M.A., Florida Institute of Technology

Meffert, Jean (1999)
Consumer Science & Design Technologies
B.S., California State Polytechnic University, Pomona
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Meyer, Elizabeta (2001)
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Meyers, Richard (2011)
English, Literature and Journalism
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Mezaki, Barbara (1990)
American Language
B.A., University of Buffalo
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Mezquita, Jesse A. (1977)
Commercial and Entertainment Arts
A.A., East Los Angeles College
B.V.E., M.V.E., California State University, Los Angeles

Miller, Kenneth (2011)
Electronics
B.S., California State Polytechnical University, Pomona
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Mirman, David (2000)
Biological Sciences
B.A., University of Pennsylvania
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Mrofka, David (2011)
Earth Sciences
B.S., Ph.D., University of California, Riverside

Muniz, Laura A. (2005)
Counseling, EOP&S/CARE
A.A., Mt. San Antonio College
B.S., California State University, Fullerton
M.S., University of La Verne

Munro, Matthew J. (1998)
Mathematics, Computer Science
B.S., University of Washington
M.A., University of Colorado
Myers, Richard (2011)
English
B.S., University of La Verne
M.A., California State Polytechnic University, Pomona

N
Nakamura, Amy Bates (2005)
Dance
B.A., California State University, Fullerton
M.F.A., University of California, Irvine

Nassar, Sam (2007)
Counseling
B.A., California State Polytechnic University, Pomona
M.A., Azusa Pacific University

Nejad, Iraj Bebahan (1992)
Chemistry
B.S., Judi Shapur University, Iran
Ph.D., Michigan State University

Neel, Monique (2006)
Radiologic Technology
A.S., A.A., Mt. San Antonio College
B.A., University of Phoenix
Certified Radiologic Technologist California
Certified Mammographer
R.T., American Registry of Radiologic Technology
R.T. (M), American Registry of Mammography

Chemistry
B.S., Northern Arizona University
Ph.D., University of California, San Diego

Nguyen, Bao-Chi (2010)
Mathematics, Computer Sciences
B.S., University of California, Los Angeles
Ph.D., Massachusetts Institute of Technology

Biological Sciences
B.A., University of California, San Diego
M.D., University of California, Irvine
Ph.D., University of California, Los Angeles
Nitta, Akira (Art) (2006)
  Mathematics, Computer Science
  B.A., University of Irvine
  M.S., California State Polytechnic University, Pomona

Nixon, Bruce (1999)
  Mental Health Technology
  B.S., California State Polytechnic University, Pomona

O’Brien, Paul (1999)
  English, Literature & Journalism
  B.A., University of California, Los Angeles
  M.A., San Jose State University

Ocampo, James (1990)
  Director, Assessment & Matriculation
  B.A., M.A., California State University, Northridge

Olds, Jennifer (2008)
  English, Literature & Journalism
  B.A., M.A., California State Polytechnic University, Pomona

 Orr, Jondea (2004)
  Nursing
  A.D.N., Rio Hondo College
  B.S.N., California State University, Dominguez Hills
  M.S.N., University of Phoenix

Padilla, Maya (2011)
  Registered Veterinary Technician
  A.A., Mt. San Antonio College
  B.A., California State Polytechnic University, Pomona

Parker, Stacy (2001)
  Physical Education / Head Coach, Men’s Baseball
  B.A., University of California, Irvine
  M.Ed., Azusa Pacific University

Parra, Heidi R. (1992)
  Mathematics, Computer Science
  A.A., Cerritos College
  B.A., M.A., California State University, Fullerton

Pascoe, Virginia (1995)
  Biological Sciences
  A.A., Cerritos College
  B.S., B.A., M.S., California State University, Long Beach

Pedersen, Kirk (1998)
  Fine Arts
  B.A., Midland College
  M.A., San Francisco State University
  M.F.A., Claremont Graduate School

Pellitieri, John (1999)
  Counseling, ESL
  B.A., California Polytechnic University, Pomona
  M.S., University of La Verne
  M.A., Psy.D., California School of Professional Psychology

Perez, Anabel (2007)
  Counseling
  M.S., California State University, Long Beach

Perez, Christopher G. (2008)
  Mathematics & Computer Science
  B.S., California State University, San Bernardino
  M.S., California State University, Los Angeles

Perez-Garcia, Julie (1999)
  Counseling
  B.A., University of California, Santa Barbara
  Ph.D., Washington State University

Perkins, Robert (2001)
  Architecture & Engineering Design Technology
  B.S.C.E., Princeton University
  M.Arch., University of Colorado

Petersen, Craig A. (1981)
  Biological Sciences
  B.S., M.S., California State University, Los Angeles

Peletz, Sarah (2008)
  Nursing
  A.S., Los Angeles County School of Nursing
  A.A., Mt. San Antonio College
  B.S.N., M.S.N., Ph.N., Ed., California State University, Dominguez Hills

  Mathematics, Computer Science
  B.A., University of Bucharest
  M.S., University of Iowa
  M.A., Ph.D., University of Southern California

Potter, Don (2009)
  Manager, Deaf and Hard of Hearing Services, DSP&S
  B.A., University of Minnesota
  B.S.D., CI/CT, NAID

Poultier, Shane (2007)
  Counseling
  B.A., California State University, Pomona
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Preciado, Rosa M. (1975)
  Psychology, Education
  A.A., Mt. San Antonio College
  B.A., California State University, Fullerton
  M.A., University of California, Riverside

Presch, Melissa (2008)
  Biological Sciences
  B.A., California State University, Fullerton
  M.S., California State University, San Bernardino

Prochaska, Cynthia Adam (1990)
  English, Literature & Journalism
  B.A., M.A., University of California, Santa Barbara

Purcell, Robert (2011)
  Physical Education
  B.A., M.S., Azusa Pacific University

Quinn, Barbara (2006)
  Disabled Student Programs & Services
  B.A., California State University, Fullerton
  M.S.W., University of Southern California

  English, Literature & Journalism
  A.A., Mt. San Antonio College
  B.A., M.A., California State Polytechnic University, Pomona

Ramsey, Martin A. (2011)
  Business Administration
  B.A., Arizona State University
  J.D., University of San Diego
  LL.M., Indiana University
  Member, California Bar Association

Redinger, Larry L. (1975)
  Dean, Natural Sciences
  A.S., San Bernardino Valley College
  B.S., California State University, Long Beach
  M.S., Northern Arizona University

Reel, Ron (1988)
  Communication
  A.A., Bakersfield College
  B.A., M.A., California State University, Fresno
  Ph.D., Valley Christian University

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

Revell, Timothy (1999)
  Biological Sciences
  A.A., Ventura College
  B.A., University of California, Santa Cruz
  M.S., California State University, Fullerton
  Ph.D., Loma Linda University

Rezach, Carmen (2005)
  Biological Sciences
  B.A., University of California, Los Angeles
  M.S., California State University, Stanislaus
  Ph.D., University of California, Davis

Reyes, Mary-Ellen (1998)
  Mental Health Technology
  A.A., Chaffey College

Richardson, Lanny (1995)
  Air Conditioning & Welding
  A.S., Mt. San Antonio College

Rickard, Malcolm (2008)
  Physics and Engineering
  B.A., M.S., San Francisco University
  Ph.D., University of Colorado

Rillotta, Linda C. (1989)
  Sociology, Philosophy
  A.A., Pasadena City College
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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.S.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
  F.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
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Romero, Oscar (2007)
  Nursing
  A.S., Mt. San Antonio College
  R.N., Los Angeles County - University of Southern California School of Nursing
  M.S.N., 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 / Head Coach, Men's Water Polo and Swimming
  A.A., Mt. San Antonio College
  B.A., University of California, Santa Barbara
  M.A., Azusa Pacific University

Russell, Paul (1988)
  Learning Assistance
  B.S., California State Polytechnic University, Pomona
  M.Ed., California Lutheran College

S

Sakugawa, Jamie (2008)
  Agricultural Sciences
  B.A., California State Polytechnic University, San Luis Obispo

Salingor, Aaron (2011)
  Foreign Languages
  B.A., University of California, Santa Cruz
  M.A., University of New Mexico

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 / Head Coach, Men's Soccer
  B.S., California State University, Los Angeles
  M.Ed., University of La Verne

Santiago, Tanya (2011)
  Nursing
  A.S.N., Mt. San Antonio College
  B.S.N., M.S.N., FNP, Azusa Pacific University

Sardinas, Ignacio (2008)
  Architecture and Engineering Design Technology
  B.A., California State Polytechnic University, Pomona

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

Scioro, Donald (1999)
  Commercial and Entertainment Arts
  B.F.A., California State University, Fullerton

Scott, Brian (2001)
  Agricultural Sciences
  A.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

Schoettlin, William (2011)
  President/CEO
  B.S., University of California, Los Angeles
  Ph.D., University of California, Riverside

Shackelford, Stephen (2010)
  Aeronautics, Transportation
  B.A., University of San Francisco

Shannon, Cynthia (1991)
  Biological Sciences
  A.A., Fullerton College
  B.A., California State University, Fullerton
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  Certified Substance Abuse Counselor, UCLA

Sherwood, Kelly (2009)
  Medical Services Department
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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

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  Learning Assistance
  B.A., California State Polytechnic University, Pomona
  M.A., Chapman University

Simon, Curtis (2009)
  Geography & Political Science
  B.A., California State University, Chico
  M.A., University of California, Riverside
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  Commercial and Entertainment Arts
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