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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) 806-0234.

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 2010-11 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 91789-1341

(909) 594-5611
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(Hearing Impaired)

www.misac.edu
BE IT!

... at Mt. SAC

At Mt. San Antonio College, we believe that if you can dream success, you can achieve it. That's why this 2010-11 College Catalog further promotes our "Dream it. Be it." theme that we launched a few years ago. It's our way of reinforcing our unwavering commitment to provide you the quality instruction, the tools and resources, and the support services needed to help you fulfill whatever dream you have for your life.

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

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

As the largest of California's single-campus community college districts, Mt. SAC regards itself as the "College of Champions." In virtually every academic, athletic and cultural discipline, we have excelled to the top, garnering local, state, national and even international honors. We are very proud of these accomplishments and the distinction that both faculty and student efforts continue to bring to the college.

So go ahead and dream big!

Dr. John S. Nixon
President & CEO

BOARD OF TRUSTEES

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<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 5</td>
<td>Independence Day Holiday (campus closed)</td>
</tr>
<tr>
<td>July 6</td>
<td>International student admission application due for Fall Semester</td>
</tr>
<tr>
<td>July 19</td>
<td>Fall Semester Credit and Continuing Education registration opens</td>
</tr>
<tr>
<td>August 20</td>
<td>Flex/Professional Development Day</td>
</tr>
<tr>
<td>August 22</td>
<td>Residency determination date</td>
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<tr>
<td>August 23</td>
<td>Fall Semester begins</td>
</tr>
<tr>
<td>September 3</td>
<td>Last day to add a class</td>
</tr>
<tr>
<td>September 3</td>
<td>Last day to change residency for Fall Semester</td>
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<tr>
<td>September 6</td>
<td>Labor Day (campus closed)</td>
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<tr>
<td>September 10</td>
<td>Last day to withdraw without a “W” for 16-week classes</td>
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<tr>
<td>September 24</td>
<td>Last day to change grading option for 16-week classes</td>
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<tr>
<td>October 8</td>
<td>Last day to petition for Fall Semester graduation</td>
</tr>
<tr>
<td>October 29</td>
<td>Last day to withdraw from Fall Semester 16-week classes</td>
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<tr>
<td>November 1</td>
<td>International student application due for Winter Intersession</td>
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<tr>
<td>November 12</td>
<td>Veteran’s Day (campus closed)</td>
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<tr>
<td>November 18</td>
<td>Winter Intersession registration opens</td>
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<td>November 25 - 28</td>
<td>Thanksgiving Recess (campus closed)</td>
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<tr>
<td>December 6</td>
<td>International student application due for Spring Semester</td>
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<tr>
<td>December 6 - 12</td>
<td>Final Exams</td>
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<tr>
<td>December 7 - 11, 14-16</td>
<td>“Book Buy Back” at SacBookRac</td>
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<tr>
<td>December 12</td>
<td>Fall Semester ends</td>
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<tr>
<td>December 24 - January 9</td>
<td>Winter Recess for students</td>
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</table>
2010-11 College Calendar

Winter 2011

January 1, 2011  New Year’s Holiday (campus closed)
January 10  Winter Intersession begins
January 17  Martin Luther King, Jr. Day (campus closed)

February 18  Lincoln’s Birthday (campus closed)
February 20  Winter Intersession ends

Spring 2011

February 28  Spring Semester begins
March 31  Cesar Chavez Day of Observance (campus closed)
2010-11 College Calendar

Spring 2011 (continued)

May 30  Memorial Day (campus closed)

June 12 - 19  Final Exams (see schedule in Spring Schedule of Classes)
June 17  Commencement
June 19  Spring Semester ends

Summer 2011

July 4  Independence Day (campus closed)
July 5  Summer Intersession begins

August 14  Summer Intersession ends
## COLLEGE DIRECTORY

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

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

<table>
<thead>
<tr>
<th>Department</th>
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<td>Professional &amp; Organizational Development</td>
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<td>*Psychology, Education</td>
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<td>Small Business Development Center</td>
<td>(626) 337-2101</td>
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<td>*Sociology, Philosophy</td>
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*Instructional programs and departments
SECTION ONE

The College
MT. SAN ANTONIO COLLEGE

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

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

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

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

HISTORY

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

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

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

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

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

MISSION, VISION AND VALUES

Mission

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

Vision

It is the vision of Mt. San Antonio College:

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

Core Values

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

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

ADMINISTRATION

Administrative Services Ext. 4230
Vice President, Administrative Services ......................................................... Michael Gregory
Associate Vice President, Fiscal Services ......................................................... Linda Baldwin
Director, Accounting Services ......................................................................... Sid Young
Manager, Accounting ...................................................................................... Shelly Zaht-Egbert
Director, Bookstore and Operations ................................................................. Suzanne Luetjen
Director, Bursar’s Office .................................................................................. Sheree Culross
Manager, Custodial Services ........................................................................... Ken McAlpin
Director, Facilities Planning and Management .............................................. Gary Nellesen
Assistant Director, Facilities Planning and Management .................................. Bill Asher
Manager, Facilities Support Services .............................................................. Becky Mitchell
Project Manager, Facilities ............................................................................. Roger Sneed
Assistant Director, Fiscal Services .................................................................... Rosa Royce
Interim Director, Dining Services .................................................................... Lila Bellinski
Director, Grounds and Transportation .............................................................. Carol Baker
Interim Manager, Payroll .................................................................................. Richard Lee
Director, Public Safety .................................................................................... Vacant
Assistant Director, Public Safety ..................................................................... Michael Montoya
Manager, Purchasing ....................................................................................... Tom Meikle
Director, Safety, Health Benefits, and Risk Management .............................. Karen Saldana
Director, Technical Services ........................................................................... William Eastham

Human Resources Ext. 4225
Vice President, Human Resources ................................................................. Annette Loria
Director, Human Resources ........................................................................... Terri Hampton

Information and Educational Technology Ext. 4357
Chief Technology Officer ................................................................................... Victor Belinski
Director, Enterprise Applications Systems ....................................................... Seryl Hullings
Director, Academic Technology and Infrastructure ....................................... Dale Vickers
Assistant Director, Academic Technology and Infrastructure ...................... Shanti Atashpoush
Manager, Data and Network Security ............................................................. Jeff Holden

ADMINISTRATION

President’s Office Ext. 4121/4215
Director, Marketing & Public Affairs ................................................................. Clarence Brown
Director, Public Affairs .................................................................................... Jill Dolan
Executive Director, Mt. SAC Foundation ......................................................... Richard Morley

Instruction Ext. 4200
Vice President, Instruction ............................................................................... Dr. Virginia Burley
Interim Dean, Instructional Services ................................................................. Dr. Terri Long
Dean, Arts Division .......................................................................................... Dr. Susan Long
Dean, Business Division ................................................................................... Vacant
Associate Dean, Business Division ................................................................... Richard Patterson
Director, Child Development Center ................................................................. Janette Henry
Dean, Humanities and Social Sciences Division ............................................. Dr. Stephen A. Runnebohm
Associate Dean, Humanities and Social Sciences Division ......................... James Jenkins
Dean, Library and Learning Resources Division ............................................ Meghan M. Chen
Director, Learning Assistance Center ............................................................. Bailey Smith
Dean, Natural Sciences Division ....................................................................... Larry Redinger
Associate Dean, Natural Sciences Division ..................................................... Matthew Judd
Dean, Physical Education Division ................................................................... Vacant
Director, Physical Education/Wellness Programs ............................................. Joseph Jennum
Dean, Technology and Health Division ........................................................... Dr. Sarah Daum
Associate Dean, Technology and Health Division ......................................... Jemma Blake-Judd
Dean, Continuing Education .......................................................................... Donna Burns
Director, Adult Basic Education ...................................................................... Madelyn Arballo
Assistant Director, Adult Basic Education ......................................................... Omideh Sloan
Interim Director, Community Education and Contract Training .................. Paulo Madrigal
Director, ESL and Intercultural Programs ....................................................... Liza Becker
Coordinator, ESL Curriculum and Assessment .............................................. Margaret Teske
Director, Grants ............................................................................................... Adrienne Price
Director, Research and Institutional Effectiveness ......................................... Barbara McNeice-Stallard
Director, Honors .............................................................................................. Carolyn Kuykendall

Student Services Ext. 4505
Vice President, Student Services ................................................................. Dr. Audrey Yamagata-Noji
Dean, Counseling ............................................................................................ Thomas Mauch
Associate Dean, Counseling ........................................................................... Dr. Deryl Foster
Dean, Student Services ..................................................................................... Carolyn Keys
Dean, Enrollment Management ....................................................................... Dr. George Bradshaw
Assistant Director, Admissions and Records .................................................. Patricia Montoya
Director, Upward Bound ................................................................................... Juan Carlos Astorga
Manager, CalWorks/CARE .............................................................................. Lorraine Williams
Director, Assessment and Matriculation .......................................................... James Ocampo
Director, Career and Transfer Services .......................................................... Heidi Lockhart
### INSTRUCTIONAL DIVISIONS

**Arts Division**

Dr. Susan Long, Dean  
The Arts Division is composed of four educational departments: Fine Arts, Commercial and Entertainment Arts, Music, and Theater. The division sponsors numerous award-winning performing groups, houses an art gallery and includes Studio Arts, Digital Arts, and Radio and Television programs. The division sponsors several student drama and music productions in the Performing Arts Center each year and has performing groups that have established top national and international competition rankings. The Arts Division also oversees vocational degrees and certificates in Animation, Graphic Design, Radio, Television, Photography and Computer Graphics. For information relating to departments, programs, or events, contact the division office at ext. 5200.

**Business Division**

Dean, vacant  
Rich Patterson, Associate Dean  
The Business Division’s educational programs and services are designed to respond to the changing trends, needs, and job requirements of the community, state, and national economy while ensuring a high quality education. The division offers thirty Associate in Science degrees, one Associate in Arts degree, and over eighty certificates. The Business Division’s educational departments and their program areas are:

- Accounting and Management (Accounting, Business Management, and Business Office Communications)
- Business Administration (Paralegal Studies, Marketing & Sales, Real Estate, Economics, and Business Law)
- Child Development

The Business Division’s programs and services are designed to insure high quality education delivered to meet current and future job requirements and the needs of the community. For additional information, contact the division office at ext. 4600.

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 includes the services of the Child Development Center. For additional information, contact the Child Development Center at ext. 4920.

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**INSTRUCTIONAL DIVISIONS (continued)**

Director, Disabled Student Programs and Services (DSP&S) ........................................... Grace Hanson  
Manager, Deaf and Hard of Hearing ................................................................. Don Potter  
Director, Extended Opportunity Programs and Services (EOPS) ......................... Irene Herrera  
Director, Financial Aid ................................................................. Susan Jones  
Director, Health Services ........................................................................... Sandra Samples  
Director, Student Life .............................................................................. Dr. Maryann Tolano-Leveque

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**The College Library**

Library Department offers courses in information resources and research methods as well as introduction to library research.

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

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

Mt. SAC’s five 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.

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, Physician’s 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 Office 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 but will be required to provide official course information from the institution of record or from the college/university catalog.

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.

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) 594-5617, ext. 5252.

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

- Mt. SAC Application for Admission
- International (F-1 Visa) Student Application
- Application processing fee of $50.00 (U.S.)
- Confidential Financial support documents
- 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 "44944".
  2) IELTS (overall band score of 4.5 or higher). Information regarding IELTS may be obtained at www.ieltstest.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.
- 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 2010-11 school year are as follows:

- Summer 2010 — First Monday of April
- Fall 2010 — First Monday of June
- Winter 2011 — First Monday of November
- Spring 2011 — 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.
Matriculation

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

Schedule of Classes
The Mt. SAC Schedule of Classes, which indicates intended course offerings and teaching assignments for both credit, noncredit and continuing education courses, is available on campus, on the Mt. SAC website (www.mtsac.edu) and at community libraries. The College reserves the right to cancel, reschedule, equalize, or combine classes and to change professors where such action is deemed necessary.

Enrollment Fees and Expenses
Students are charged an enrollment fee, a Health Services Fee, and for some classes Materials Fees for each term at Mt. San Antonio College. These fees are subject to change. An optional Student Activities Fee is available for purchase for the Fall and Spring semesters. Please consult the latest Schedule of Classes for current fees and other related information.

Students must purchase their own textbooks and supplies. Expenses for books and supplies for full-time students may average $300 to $600 per semester depending upon the program of study selected.

Students wishing to park in the regular student parking lots are required to have a valid Student Parking Permit. The permit may be purchased at the time of registration online or at the Bursar’s Office located in Building 9A.

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

Military Refund: In the case of students who are members of an active or reserve military unit and who receive orders compelling a withdrawal from 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 courses; then enroll in AMLA courses each semester until they are eligible for ENGL 67 or English 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.

Exemption from Assessment
Students are exempt from assessment if they:
1) enroll in 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 word 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’s or high degree from an accredited institution.

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

ABILITY TO BENEFIT
Students applying for financial aid who do not have a high school diploma, GED, a certificate of proficiency or its equivalent must demonstrate that they have the ability to benefit from an educational program at Mt. San Antonio College prior to receiving Title IV financial aid. To meet this requirement, 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. This includes students who may want to take one course, or those who are transferring from another college. The only exception is for students who have a degree from an accredited college/university.
Orientation includes information regarding college programs, services, procedures, student responsibilities, and other related information. Students will have the opportunity to meet with a counselor or an advisor to develop a first semester educational plan.
The College has determined the importance of an orientation to college as a factor in success. Prospective students are urged to make an appointment for orientation immediately after filing an application and taking the necessary placement tests.

COUNSELING/ADVISEMENT
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. enroll in non-credit or community services classes only;
2. possess an Associate or higher degree from an accredited institution;
3. attain 60 units or more from an accredited institution;
4. select and enroll in a general interest class only. All students must meet course prerequisites.

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

PREREQUISITES, COREQUISITES, AND ADVISORIES
Faculty at Mt. SAC have established prerequisites, corequisites and advisories 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.

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.
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 officially may result in a failing grade and/or a financial obligation to the college.

Instructors may drop students from their class rolls through the last day of the tenth week of instruction of a regular semester for excessive absence as defined by the instructor 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 from a class 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 College, or are dropped by the professor between the first day of the fourth week and the last day of the tenth week of instruction during a regular semester will receive a mark of “W” withdrawal on their permanent record.

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

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

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

Student Unit Limits
Without petitioning, students may enroll in up to 18 units each semester and up to seven units each summer and winter session.

Students who have completed a minimum of 15 college units in a given semester with a grade point average of at least 3.0 and have a minimum cumulative grade point average of at least 3.0 may petition for permission to enroll in units above the maximum.

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

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

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

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

Students may choose to qualify for graduation (general education and major) under the requirements in effect at either:

1. the time they entered the college, or
2. they may use any catalog thereafter, as long as the student maintains continuous enrollment. Continuous enrollment is defined as attendance during every primary term (Fall and Spring) after initial enrollment at Mt. San Antonio College.

Continuous Residence
A student will retain rights to follow Catalog requirements for the year they entered Mt. San Antonio College if, during every primary term after initial enrollment at Mt. SAC, he/she:

1. is enrolled in any credit class at Mt. SAC beyond the first four weeks; or
2. completes any units in a credit class at another accredited post-secondary institution; or
3. receives a waiver in advance or approval of a petition for exceptional action because of extenuating circumstances.

CREDITS AND GRADES

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

<table>
<thead>
<tr>
<th>Evaluative 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>P</td>
<td>Pass</td>
<td>(at least equivalent to a “C” grade. Units awarded are not counted in determining the student’s grade point average).</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>
<td></td>
</tr>
</tbody>
</table>

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

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

IP — In Progress: The “IP” symbol shall be used to denote that the class 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.

W — Withdrawal: Withdrawal from a class or classes shall be authorized through the last day of the 10th week of instruction of a regular semester-length class. No notation (“W” or other) shall be made on the academic record of the student who withdraws during the first three weeks of a regular semester-length class. Withdrawal between the first day of the 4th week and the last day of the 10th week of instruction shall be recorded as a “W” on the student’s record. The “W” shall not be used in calculating grade point averages, but excessive “W’s” shall be used as factors in probation and dismissal procedures. Withdrawal from short term classes of less than semester length, but greater than six weeks, is authorized for a period of time through 61% of the course, and a mark of “W” shall be made on the student’s academic record. Students are allowed no more than two “W” grades in a class. After earning two “W” grades in a class, to repeat a class, the student must petition using the process described under “Limitations on Repeating Courses.” No notation shall be made on the academic record of a student who withdraws from a short term class of less than semester length, but greater than six weeks, provided the student withdraws no later than the first 30% of the course.

MW — Military Withdrawal: The “MW,” military withdrawal, mark shall be assigned only for students who are members of an active or reserve military unit, and who receive orders compelling a withdrawal from courses. Upon verification of such order, this symbol may be assigned at any time after the period established by the governing board during which no notation is made for withdrawals. The “MW” shall not be counted in determining registration priority, progress probation, and dismissal calculations. A “W” previously incurred commencing January 1, 1990, and which meets the definition of “MW” may be changed to “MW.”

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, C; NP = D, F). A few classes are offered for Pass/No Pass only. These courses are designed to encourage students to explore areas outside their major field of study in order to broaden and enrich their collegiate experience, and to afford an opportunity for departments to offer courses in which there is diminished emphasis on grades. The Pass/No Pass grading option is no longer available for General Education courses.

In courses offering the grading option, students are automatically registered on a letter grade basis at the time of registration. If a change is desired, the student 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 55753 of Title 5 of the California Administrative Code, students at Mt. San Antonio College may apply for Credit by Examination and such unit credit may be granted subject to the following rules and regulations:

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

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE 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>Art (Studio)</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</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</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>
</tbody>
</table>

*Only one exam may be used toward transfer **Maximum credit 8 quarter/5.3 semester units for both ***Maximum one exam toward transfer

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE Units</th>
<th>CSU Units</th>
<th>IGETC Units</th>
<th>UC Units</th>
</tr>
</thead>
<tbody>
<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</td>
<td>N/A</td>
<td>3 semester</td>
<td>N/A</td>
<td>2 quarter / 3.3 semester*</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>N/A</td>
<td>6 semester*</td>
<td>N/A</td>
<td>4 quarter / 2.7 semester**</td>
</tr>
</tbody>
</table>

*Maximum one exam toward transfer **Maximum 4 quarter/2.7 semester units for both

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE Units</th>
<th>CSU Units</th>
<th>IGETC Units</th>
<th>UC Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics — Macroeconomics</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 — 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>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>
</tbody>
</table>

*9 quarter/5.3 semester units maximum for both **Maximum 4 quarter/2.7 semester units for both

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE Units</th>
<th>CSU Units</th>
<th>IGETC Units</th>
<th>UC Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Science</td>
<td>4 semester (Area B2 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</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</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</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 D6)</td>
<td>3 semester</td>
<td>3 semester (Area 4F)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Government &amp; Politics — U.S.</td>
<td>3 semester (Area B8 and US 2)*</td>
<td>3 semester</td>
<td>3 semester (Area 4H)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE Units</th>
<th>CSU Units</th>
<th>IGETC Units</th>
<th>UC Units</th>
</tr>
</thead>
<tbody>
<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.</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 — 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 — Vorgi</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</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</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</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</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 — Magnetism</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>
</tbody>
</table>

*Maximum 4 semester units toward GE and 6 semester units toward transfer **Maximum 8 quarter/5.3 semester units for both

<table>
<thead>
<tr>
<th>Exam</th>
<th>CSU GE Units</th>
<th>CSU Units</th>
<th>IGETC Units</th>
<th>UC Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>3 semester (Area D9)</td>
<td>3 semester</td>
<td>3 semester (Area 4B)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
<tr>
<td>Spanish Language</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</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</td>
<td>3 semester (Area 2)</td>
<td>4 quarter / 2.7 semester</td>
</tr>
</tbody>
</table>
Academic Policies and Requirements

INTERNATIONAL BACCALAUREATE CREDIT FOR GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE

<table>
<thead>
<tr>
<th>IB Examination</th>
<th>Number of Units Awarded to Mt. SAC General Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>5 semester units toward Area B2</td>
</tr>
<tr>
<td>Business Management</td>
<td>NA</td>
</tr>
<tr>
<td>Chemistry</td>
<td>5 semester units toward Area B1</td>
</tr>
<tr>
<td>Classical Languages</td>
<td>5 semester units toward Area C2</td>
</tr>
<tr>
<td>Computer Science</td>
<td>NA</td>
</tr>
<tr>
<td>Dance</td>
<td>5 semester units toward Area C1</td>
</tr>
<tr>
<td>Design Technology</td>
<td>NA</td>
</tr>
<tr>
<td>Economics</td>
<td>5 semester units toward Area A2</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 A2</td>
</tr>
<tr>
<td>History</td>
<td>5 semester units toward Area C2 or D2</td>
</tr>
<tr>
<td>History of Islamic World</td>
<td>5 semester units toward Area C2 or D2</td>
</tr>
<tr>
<td>Language A1</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>5 semester units toward Area A1</td>
</tr>
<tr>
<td>French</td>
<td>5 semester units toward Area C2</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>

Rules and Regulations

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

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

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 Experiences in the Armed Forces and the National Guide to Credit Recommendation for Non-collegiate courses; the College Entrance Examination board in reference to its recommendation of Advanced Placement Examinations, and credit recommendations from other similar nationally recognized academic institutions, including Mt. San Antonio College’s policy for comprehensive examinations.
### Academic Policies and Requirements

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

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

#### HONORS

##### Academic Honors

**President’s List**
The President’s List is an honors list comprised of those students who have achieved a 3.50 or better grade point average in a minimum of twelve (12) letter-graded Associate Degree applicable units per semester 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 and 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 SAT II score; 3.5 GPA
- **Mt. San Antonio College Students** — Nine transferable units; Eligibility for ENGL 1A; 3.5 GPA (Waivers can be obtained through the Honors Program Office for highly motivated students with a competitive GPA and an in-progress grade report and professor recommendation.)

##### Requirements for “Honors Scholar” Designation
- Complete six (6) honors courses (18 units) with a minimum 3.2 GPA for honors certification
- Maintain a 3.2 GPA

For additional information about Mt. SAC’s Honors Program, contact the Honors Program Director at Ext. 4528.

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

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

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

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

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

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

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Academic Policies and Requirements

ACADEMIC STANDARDS

Probation and Dismissal

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

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 - the cumulative average 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 consecutive semester continues to have a cumulative grade point average below 2.0, or
   b. Continued Progress Probation - occurs when the student 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.

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 all units with “W”, “I” and “NP” drops below fifty percent.

Probation and Dismissal Status

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

2. Second semester Probation
   a. Academic - occurs when the student in their consecutive semester continues to have a cumulative grade point average below 2.0, or
   b. Progress - continues to have a cumulative percentage of all units enrolled recorded as “W”, “I” and “NP” at fifty percent or higher.

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

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

Appeal of Dismissal

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

Reinstatement after Dismissal

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

A reinstated student shall remain on a probationary, reinstated status and complete a contract, which shall include the number of units in which the student shall enroll. Failure to comply with the terms and conditions of the contract 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 Office 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.
SECTION FOUR

Student Services
and Student Life
STUDENT SERVICES AND STUDENT LIFE

STUDENT SERVICES

Mt. San Antonio College provides a wide range of support services which are essential for success to assist a diverse student population in achieving their educational, career, personal and social goals.

Admissions and Records

Student Services Center, Ext. 4415

Admissions and Records, located on the lower level of the Student Services Center, provides a variety of services to students. It is usually the first office prospective students visit, and the last office students visit before transferring or graduating. The following are some of the services provided:

1. All students must submit an application for admission in order to attend Mt. San Antonio College. The admissions application generates a Permit to Register and establishes a historical student record for each student. Also, transcripts from 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 and maintains all permanent roll sheets and grade books received from faculty.

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, Reading Bridge and/or the Pre-Nursing/Health Bridge.

Bursar’s Office and Photo ID, Ext. 4960

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

Career and Transfer Services

Student Services Center, Ext. 4510

Career and Transfer Services helps students 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

Students who have a medical condition or disability, which limits their ability to participate fully and equally in any college instructional program and/or activity, are encouraged to visit Disabled Student Programs and Services. A professional will meet with them to determine the extent of their limitations and the special services and accommodations that may be provided for their needs.

To take advantage of the wide array of services we offer, written documentation of disability must be provided by a physician or appropriate qualified professional; the disability must present a limitation to a successful 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
- Team Service
- Priority registration
- Classroom testing accommodation
- 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 any other services that may provide assistance while they attend 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 Program 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 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 intended to help students who might not otherwise be able to attend 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. Financial aid programs have been 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 of the financial aid programs.

All students may be eligible for some form of assistance based on their financial need. The Financial Aid Office, located on the upper level of the Student Services Center building, administers aid programs for eligible applicants. Eligibility criteria for financial aid programs are subject to frequent change. Students may apply for aid by filing a Free Application for Federal Student Aid (FAFSA) form. A FAFSA worksheet is available in the Financial Aid Office for students interested in filing online at www.fafsa.gov. For any questions or further information, contact the Financial Aid Office, ext. 4450.
Federal Perkins Loans
Board of Governors Fee Waiver
Federal Pell Grant
Federal Academic Competitiveness Grant
Federal Supplemental Educational Opportunity Grant (FSEOG)
Federal Work-Study Program (FWS)
Need-based scholarships
State CAL Grants
Chafee Grant (for Foster youth)
Federal William D. Ford Direct Loan Program

The FAFSA is the application for the following Federal and State programs:

1. Federal Pell Grant
2. Federal Supplemental Educational Opportunity Grant (FSEOG)
3. Federal Work-Study Program (FWS)
4. Federal Perkins Loans
5. Board of Governors Fee Waiver
6. Federal Academic Competitiveness Grant
7. Federal Supplemental Educational Opportunity Grant (FSEOG)
8. Need-based scholarships
9. State CAL Grants
10. Chafee Grant (for Foster youth)
11. Federal William D. Ford Direct Loan Program

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

Residents 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 Academic Competitiveness Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work-Study Program (FWS)
- Need-based scholarships
- State CAL Grants
- Chafee Grant (for Foster youth)
- Federal William D. Ford Direct Loan Program

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

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

The California Community College Board of Governors Fee Waiver program is available to qualified California residents. The enrollment fee is waived for eligible students. The student is responsible for paying the remainder of the fees assessed within seven business days of registration. There are three methods to qualify for a Board of Governors Fee Waiver: (1) Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), or General Relief recipient, or (2) Household size/family income, or (3) Financial need as determined by filing the Free Application for Federal Student Aid (FAFSA).

Applications for this program are available in the Financial Aid Office. In addition to the three methods, there are special classifications that qualify for an enrollment fee waiver, which is subject to certification and/or documentation. Refer to the BOG Fee Waiver application for a list of these classifications.

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

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

Student Services Center, Ext. 4520

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

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

The Veterans’ Administration requires all entering veterans to be formally evaluated for military experience to prevent future interruption of educational benefits. All prior transcripts (College or Service) must be received and evaluated by our Admissions and Records Office as soon as possible. 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 as soon as possible to the Veterans Service Center in order to receive benefits.

Students should visit the Counseling Center for assistance in completing their educational plan.

Satisfactory progress of veterans or eligible dependents is measured by the successful completion of the number of units enrolled. “W,” “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 a Veterans Service Center to assist veterans and/or dependents in all matters pertaining to veteran's benefits. Veterans and/or eligible dependents must apply each semester for their Veterans Administration educational assistance allowance through the Veteran's Service Center. Special details such as application deadlines can be found in the most current Schedule of Classes.

**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

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 courses expectation 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 instructor.

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 student 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 in an agreement with 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.

Instruction and Learning Resources

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 (MARCl, 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
- Priting capability
- Assessment testing
- Individualized Education Plans
- Applied activies
- And more!

For additional information, please contact TERC at ext. 4597.
Instruction and Learning Resources

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. Tutor 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 traditional resources such as books, journals, newspapers, videos, career guides, and college catalogs, researchers may also search numerous full-text article databases and access lists of pre-evaluated Internet websites. 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.

Media Services, Building 6, North Entrance, Upper Level, Learning Technology Center

Media Services has over three thousand DVDs and videos available for student viewing. Students must view the videos in the Media Services center.

COMPUTER AIDED GRAPHICS, VISUAL ARTS AND DESIGN PROGRAMS

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

ARCHITECTURE & ENGINEERING DESIGN TECHNOLOGY DEPARTMENT

Architectural Technology A.S. Degree & Certificates

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

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

Engineering Design Technology A.S. Degrees & Certificates

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

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

COMMERCIAL AND ENTERTAINMENT ARTS DEPARTMENT

Advertising Design & Illustration A.S. Degree

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

Job Market: Advertising Design & Illustration focuses on the visual communication and design skills that are employed in graphic design, illustration, animation, multimedia and entertainment arts industries.

Aesthetics for Technology Certificate

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

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

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

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

Job Market: Supplies skills for a variety of entertainment arts careers including Traditional and Digital Animation, Motion Graphics, Gaming, Special Effects, and Web Animation.

Web Page Design Certificate

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

Job Market: Web design skills are used any time an organization, business, or individual utilizes the internet for marketing or advertising or as a promotional tool.
**Departments offering programs in computer programming, security, and servicing are:**

Students select the correct computer specialization for their interests. Students planning to transfer should consider the catalog of the school to which they plan to transfer for specific lower division requirements.

<table>
<thead>
<tr>
<th>Computer Graphic Design/Photography</th>
<th>A.S. Degree &amp; Certificate</th>
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<tbody>
<tr>
<td><strong>Prime Focus:</strong> Offers the full range of introductory to advanced courses in computer graphic design and photography. The 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.</td>
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<tr>
<td><strong>Job Market:</strong> Free-Lance or Corporate Graphic Design; Marketing Photography; Advertising Design; Photoproduction; Commercial or Industrial Photography; Broadcast, Entertainment or Software Graphic Design. (See Sections 7 and 8)</td>
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<tr>
<th>Photography</th>
<th>A.S. Degree &amp; Certificate</th>
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<tbody>
<tr>
<td><strong>Prime Focus:</strong> 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 specialists in related disciplines. The program focuses on development, refinement and enhancement of visual imaging.</td>
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</tr>
<tr>
<td><strong>Job Market:</strong> 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)</td>
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**COMPUTER PROGRAMMING, COMPUTER SECURITY, AND COMPUTER SERVICING**

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

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

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

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<td><strong>Computer Information Systems</strong></td>
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<td><strong>Prime Focus:</strong> 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#.</td>
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**COMPUTER INFORMATION SYSTEMS DEPARTMENT (CONT.)**

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<tr>
<th>Mt. SAC’s Regional Information Systems Security Center (RISSC) has developed 6 new computer security courses to assist students with job-related and personal computer security demands:</th>
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<tr>
<td><strong>Electronics and Computer Engineering Technology</strong></td>
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<tr>
<td><strong>Prime Focus:</strong> 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.</td>
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<tr>
<td><strong>Job Market:</strong> Career opportunities include Service Technician, Production Technician, Engineering Technician, Electronics Communication Technician, Computer Repair Technician, Networking Technician, and Assembler. (See Sections 7 and 8)</td>
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**MATHEMATICS DEPARTMENT**

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<tr>
<th>Computer Science/Mathematics</th>
<th>Transfer</th>
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<tr>
<td><strong>Prime Focus:</strong> 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.</td>
<td></td>
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<tr>
<td><strong>Job Market:</strong> 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)</td>
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**INSTRUCTION AND LEARNING RESOURCES**
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, illustration, 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 gymnasium, wrestling gym, strength-training facilities, an Olympic size swimming pool, and an Exercise/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 or 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 birth 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, EKG/metabolic testing, athletic performance testing, individual health/fitness programming and injury prevention/rehabilitation. Activities are offered for all age groups including a youth fitness program and courses for older adults.

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.
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 Mount 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.
SECTION

Programs of Study
Leading to a Certificate
Mt. San Antonio College also awards Certificates of Competency for certain non-credit programs of study.

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**PROGRAMS OF STUDY LEADING TO A CERTIFICATE**

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

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

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

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

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

**Requirements for all certificates include the following:**

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

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

Mt. San Antonio College also awards Certificates of Competency for certain non-credit programs of study. Information on these certificates may be found on pages 216-224.
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**Programs of Study Leading to a Certificate**
Programs of Study Leading to a Certificate

CERTIFICATES OF ACHIEVEMENT

CSU General Education Breadth
Certificate T8955
Completion of coursework for this certificate is intended for students who are planning to transfer to one of the campuses of the California State University system. In most instances, completion of courses for this certificate will assist students in transferring without the need to take additional lower-division general education courses to satisfy university general education requirements.

Note: This certificate signifies completion of the CSU general education requirements ONLY; transfer students must generally also satisfy lower-division requirements in a specific major in order to be able to transfer with junior-level status. It is highly recommended that all students intending to transfer consult with Counseling and Advising Services, and that they refer to the current catalog of their specific transfer university.

For requirements, see page 104 of this catalog (the reference page is the CSU General Education pattern requirements page in the "Transfer" section 9.)

Intersegmental General Education Transfer Curriculum (IGETC)
Certificate T8960
Completion of coursework for this certificate is intended for students who are planning to transfer to a public 4-year university within California. Most students who follow IGETC are planning to transfer to a University of California campus, but this pattern is also accepted by the California State University system. Completion of courses for this certificate will permit students to transfer without the need to take additional lower-division general education courses to satisfy university general education requirements.

Note: This certificate signifies completion of the IGETC general education requirements ONLY; transfer students must generally also satisfy lower-division requirements in a specific major in order to be able to transfer with junior-level status. Not all UC campuses or all majors will accept the completion of this pattern as meeting the lower division breadth requirements. It is highly recommended that all students intending to transfer consult with Counseling and Advising Services, and that they refer to the current catalog of their specific transfer university.

For requirements, see page 108 of this catalog (the reference page is the IGETC requirements page in the "Transfer" section 9.)

Accounting

Accounting and Management Department
Certificate T0502
The Accounting Certificate incorporates various accounting courses that prepare the student for entry-level positions and/or professional advancement in a wide variety of accounting jobs. These jobs include general accounting, cost accounting, payroll, inventory management, asset management, credit and collections, financial analysis, etc.

Requirements for the Certificate

Required courses:
- Completion of the Accounting: Managerial coursework (19 Units) as follows:
  - BUSA 21 Cost Accounting 4.0
  - BUSA 58 Federal Income Tax Law 3.0
  - BUSA 75 Using Microcomputers in Financial Accounting 1.0
  - BUSA 81 Work Experience in Accounting 1.0
  - BUSA 76 Using Microcomputers in Managerial Accounting 1.0
  - BUSO 25 Business Communications 3.0
- Plus the following courses:
  - BUSA 21 Cost Accounting, or 4.0
  - BUSA 58 Federal Income Tax Law 3.0
  - BUSA 70 Payroll and Tax Accounting 3.0
  - BUSM 20 Principles of Business 3.0
- Total Units: 30.0 - 32.0

Option BUSA 21 or BUSA 58: Take whichever course you have not previously taken.

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
  - 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 25 Business Communications 3.0
- Plus the following courses:
  - BUSA 75 Using Microcomputers in Financial Accounting 1.0
  - BUSA 81 Work Experience in Accounting 1.0
  - BUSO 25 Business Communications 3.0
- Total Units: 21.0

Accounting - Managerial

Accounting and Management Department
Certificate L0533
The Accounting - Managerial Accounting Certificate provides the student with 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
  - BUSA 8 Principles of Accounting - Managerial 5.0
- BUSA 58 Federal Income Tax Law 3.0
- BUSA 76 Using Microcomputers in Managerial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0
- BUSO 25 Business Communications 3.0
- Total Units: 21.0

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
  - BUSA 8 Principles of Accounting - Managerial 5.0
- BUSA 58 Federal Income Tax Law 3.0
- BUSA 76 Using Microcomputers in Managerial Accounting 1.0
- BUSA 81 Work Experience in Accounting 1.0
- BUSO 25 Business Communications 3.0
- Total Units: 21.0
Administrative Assistant - Level II
Computer Information Systems Department Certificate C0594

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
- CISI 11 Computer Keyboarding 3.0 CSU
- CISI 11A Computer Keyboarding 1.5 CSU
- CISI 11B Computer Keyboarding 1.5 CSU
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- CISI 41 Office Management Skills 3.0

Total Units 19.0

Administrative Assistant - Level III
Computer Information Systems Department Certificate T0517

The Level III Certificate prepares students for administrative assistant positions where a variety of skills are needed.

Requirements for the Certificate

Required courses:
Completion of the Administrative Assistant - Level I coursework (13 units) as follows:

- BUSO 5 Business English 3.0
- CISI 15 Microcomputer Applications 4.0 CSU, UC
- CISI 11 Computer Keyboarding 3.0 CSU
- CISI 11A Computer Keyboarding 1.5 CSU
- CISI 11B Computer Keyboarding 1.5 CSU
- CISI 41 Office Management Skills 3.0

Total Units 22.0

Air Conditioning and Refrigeration, Water
& Welding Technologies Certificate T0909

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

Requirements for the Certificate

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

Total Units 37.5

Aircraft Powerplant Maintenance Technology - Day
Aircraft Maintenance Technician & Manufacturing Technology Certificate T0982

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 99A, 99B, 99A, 91B, 92A, 92B, 93A, and 93B.

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

Requirements for the Certificate

Required courses:
- AIRM 65A Aircraft Powerplant 13.0 CSU
- AIRM 65B Aircraft Powerplant 13.0
- AIRM 70A Aircraft Maintenance Technician 3.0
- AIRM 70B Aircraft Maintenance Technician 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
- AIRM 80 Lab Studies in Aircraft Maintenance Technology
- AIRM 81 Lab Studies in Aircraft Maintenance Technology
- EDT 12 Technical Engineering Drawing II
- ELEC 90 Survey of Electronics
- MFG 70 Technical Mathematics - Manufacturing Applications
- PHYS 1 Physics
Aircraft Powerplant Maintenance Technology - Evening
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.

Requirements for the Certificate
Required courses:
- AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 70B Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 71 Aviation Maintenance Science 6.0
- AIRM 72 Aviation Materials and Processes 1.5
- AIRM 73 Aviation Welding 1.5
- AIRM 95A Aircraft Powerplant Maintenance Technology 3.0
- AIRM 95B Aircraft Powerplant Maintenance Technology 3.0
- AIRM 96A Aircraft Powerplant Maintenance Technology 3.0
- AIRM 96B Aircraft Powerplant Maintenance Technology 3.0
- AIRM 97A Aircraft Powerplant Maintenance Technology 3.0
- AIRM 97B Aircraft Powerplant Maintenance Technology 3.0
- AIRM 98A Aircraft Powerplant Maintenance Technology 3.0
- AIRM 98B Aircraft Powerplant Maintenance Technology 3.0

Total Units 39.0

Recommended Electives:
- AIRM 74 Aircraft Maintenance Technology - Work Experience
- AIRM 80 Lab Studies in Aircraft Maintenance Technology
- AIRM 81 Lab Studies in Aircraft Maintenance Technology
- EDT 12 Technical Engineering Drawing II
- ELEC 90 Survey of Electronics
- MFG 70 Technical Mathematics - Manufacturing Applications
- PHYS 1 Physics

Airframe Maintenance Technology - Day
Aircraft Maintenance Technician & Manufacturing Technology Certificate T0991

This program prepares students to enter employment as a certified airframe technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate 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 13.0 CSU
- AIRM 66B Airframe Maintenance 13.0 Technology
- AIRM 70A Aircraft Maintenance Electricity and Electronics 3.0
- AIRM 70B Aircraft Maintenance Electricity and Electronics 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
- 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

Airframe Maintenance Technology - Evening
Aircraft Maintenance Technician & Manufacturing Technology Certificate T0981

This program prepares students to enter employment as a certified airframe technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate 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 prepares students to enter employment as a certified airframe technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate 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.

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

Successful completion of this program prepares students to enter employment as a certified airframe technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and their components. Completion of this program leads to an Associate 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.

Recommended Electives:
- AIRM 74 Aircraft Maintenance Technology - Work Experience
- AIRM 80 Lab Studies in Aircraft Maintenance Technology
- EDT 12 Technical Engineering Drawing II
- ELEC 90 Survey of Electronics
- MFG 70 Technical Mathematics - Manufacturing Applications
- PHYS 1 Physics
Programs of Study Leading to a Certificate

Alcohol/Drug Counseling
Public Services Department
Certificate T2101

Upon completion of the required courses with a grade of “C” or better, a Certificate in Alcohol/Drug Studies will be awarded by the Technology and Health Division.

Requirements for the Certificate

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

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

Required field work courses:
- AD 13 Internship/Seminar 3.5 CSU
- AD 14 Advanced Internship/Seminar 3.5 CSU
- PLUS two (2) courses from:
  - CHLD 10 Child Growth and Development 3.0 CSU,UC
  - CHLD 10H Child Growth and Development - Honors 3.0 CSU,UC
  - PSYC 1A Introduction to Psychology 3.0 CSU,UC
  - PSYC 19 Abnormal Psychology 3.0 CSU,UC
  - SOC 10 Sociology 3.0 CSU,UC
  - SOC 14 Marriage and the Family 3.0 CSU,UC
  - SOC 15 Child Development 3.0 CSU,UC

Total Units 40.0

Selection Procedure

All classes are open to all students who meet admission requirements and course prerequisites.

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
- May be exposed to risk of falling from heights
- Exposed to hazardous chemicals and equipment
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, cultural, ethnic, 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, 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
Commercial and Entertainment Arts
Certificate T0301

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.

The Animation Program offers an integrated/interdisciplinary approach to prepare students to meet current and future job market demands. The student will be given a balanced blend of art and technology-based skills which are essential for today’s careers in animation. The program offers an A.S. Degree and three Certificates. Course content is driven by industry needs in order to provide the student with the best possible preparation for a career in animation.

Requirements for the Certificate

Required courses:
- ANIM 101 Drawing - Gesture and Figure 3.0 CSU
- ANIM 104 Drawing Fundamentals 3.0 CSU
- ANIM 108 Principles of Animation 3.0 CSU
- ANIM 115 Storyboarding 3.0
- ANIM 116 Character Development 1.5
- ANIM 120 Script Development for Animation 3.0
- ANIM 130 Introduction to 3-D Computer Animation 3.0
- ANIM 131 Introduction to Gaming 3.0
- ANIM 172 Motion Graphics, Compositing and Visual Effects 3.0
- ANIM 175 Web Animation with Flash 3.0
- ARTC 66 Portfolio 3.0
- ARTC 70 Computer Graphics: Introduction 3.0

Total Units 34.5

Recommended Electives:
- ANIM 109 Advanced Principles of Animation 3.0
- ANIM 121 History of Animation 3.0
- ANIM 12A Work Experience in New Digital Media 3.0
- ANIM 148 Demo-Real 3.0
- ARTD 16 Drawing: Perspective 3.0
- ARTD 17A Drawing: Life 3.0
- ARTD 20 Design: Two Dimensional 3.0
- PHOT 10 Basic Digital and Film Photography 3.0

Programs of Study Leading to a Certificate
PROGRAMS OF STUDY

LEADING TO A CERTIFICATE

Animation - Traditional

Commercial and Entertainment Arts
Certificate T1010

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

The Animation Program offers an integrated/interdisciplinary approach to prepare students
to meet current and future job market demands. The
student will be given a balanced blend of art and
technology-based skills which are essential for today’s
careers in animation. The program offers an A.S. Degree
and three Certificates. Course content is driven by
industry needs in order to provide the student with the
best possible preparation for a career in animation.

Requirements for the Certificate

Required courses:

ANIM 101 Drawing - Gesture and Figure 3.0 CSU
ANIM 104 Drawing Fundamentals 3.0 CSU
ANIM 109 Advanced Principles of Animation 3.0
ANIM 111 Animal Drawing 1.5
ANIM 115 Storyboarding 3.0
ANIM 116 Character Development 1.5
ANIM 117 Animation Background Layout 3.0 CSU
ANIM 120 Script Development for Animation 3.0
ANIM 175 Web Animation with Flash 3.0
ARTC 66 Portfolio 3.0
ARTC 70 Computer Graphics: Introduction 3.0 CSU
ARTC 16 Drawing: Perspective 3.0 CSU,UC
ARTC 17A Drawing: Life 3.0 CSU,UC
ARTC 23A Drawing: Head and Hands 1.5 CSU,UC
Total Units 40.5

Recommended Electives:

ANIM 107 Figure in Motion
ANIM 130 Introduction to 3-D Computer Animation
ANIM 121 History of Animation
ANIM 121 Introduction to Gaming
ANIM 137A Work Experience in New Digital Media
ANIM 172 Motion Graphics, Compositing and Visual Effects
ARTS 22 Design: Three-Dimensional
PHOT 10 Basic Digital and Film Photography

Architectural Technology - Level I
Architecture and Engineering Design Department
Certificate T0203

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 to 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.

Requirements for the Certificate

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 16 Basic CAD and Computer Application 4.0 CSU,UC

Total Units 21.0

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

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 a design assistant
or presentation specialist.

Requirements for the Certificate

Required courses:

ARCH 14 Building and Zoning Codes 3.0
ARCH 15 Architectural Working Drawings - I 3.0 CSU
ARCH 18 Architectural Computer Aided Design Elements 3.0
ARCH 26 Architectural CAD Working Drawings 3.0

Total Units 43.0

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

This 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 Drawings - I 3.0 CSU
ARCH 18 Architectural Computer Aided Design Elements 3.0
ARCH 26 Architectural CAD Working Drawings 3.0

Total Units 50.0 - 52.0
Programs of Study Leading to a Certificate

Architectural Technology - Design Concentration Level III
Architectural and Engineering Design Department
Certificate T0206
The Level III Design Concentration Certificate provides additional expertise in portfolio development and professional practice. The Level III Design Concentration Certificate prepares students for employment as an intermediate design assistant or presentation specialist.
Requirements for the Certificate
Required courses:
Completion of the Architectural Technology Design Concentration coursework (42 units).
Plus the following courses:
ARCH 27 Design III - Environmental Design 3.0 CSU, UC
ARCH 29 Design IV - Advanced Project 3.0 CSU
PLUS
Select one (1) course from:
ARCH 14 Building and Zoning Codes 3.0
ARCH 15 Architectural Working 3.0 CSU
ARCH 18 Architectural Computer Aided Design Elements 3.0
ARCH 26 Architectural CAD Working Drawings 3.0
ARCH 28 Architectural CAD 3-D Illustration and Animation 3.0 CSU
ARCH 89 Architectural Work Experience 1.0 - 2.0
INS 70 Elements of Construction 3.0 CSU
Total Units 51.0

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:
AIRC 20 Refrigeration Fundamentals 3.0
AIRC 25 Electrical Fundamentals for A/C & Refrigeration 4.0

Business: Human Resource Management - Level II
Accounting and Management Department
Certificate L0534
This certificate builds upon the Level I Certificate to provide students with specific knowledge of human resource management functions, HR law, compensations systems, and an understanding of human motivation provide the student with a solid foundation from which to build a career in human resources. Completion of the Business: Human Resource Management - Level I coursework (9 Units).
Requirements for the Certificate
Required courses:
Level I as follows:
BUSM 20 Principles of Business 3.0 CSU, UC
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
PLUS
Select one (1) course from:
ANTH 22 General Cultural Anthropology 3.0 CSU, UC
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 25 Business Communications 3.0 CSU
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: 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
BUSM 62 Human Resource Management 3.0
Required courses:
Level II as follows:
ANTH 22 General Cultural Anthropology 3.0 CSU, UC
BUSM 60 Human Relations in Business 3.0 CSU
BUSM 25 Business Communications 3.0 CSU
PLUS
Select one (1) course from:
BUSM 20 Principles of Business 3.0 CSU, UC
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
BUSM 63 Principles of Marketing 3.0 CSU
BUSO 25 Business Communications 3.0 CSU
Total Units 37.5

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:
BUSM 20 Principles of Business 3.0 CSU, UC
BUSM 51 Principles of International Business 3.0 CSU
BUS 36 Principles of Marketing 3.0 CSU
PLUS
Required courses:
Level II as follows:
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 66 Small Business Management 3.0 CSU
BUSO 25 Business Communications 3.0 CSU
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.
Programs of Study Leading to a Certificate

### 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:

**Requirements for the Certificate**
**Required courses:**
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 51 Principles of International Business 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU

**Level I as follows:**
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 51 Principles of International Business 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU

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

**PLUS**
- Select one (1) course from:
  - BUSS 70 International Marketing Concepts 3.0
  - CHIN 1 Beginning Chinese 4.0 CSU,UC
  - FRCH 1 Elementary French 4.0 CSU,UC
  - GERM 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

**PLUS**
- Additional required courses:
  - BUSL 20 International Business Law 3.0
  - BUSM 50 World Culture: A Business Perspective 3.0
  - ANTH 22 General Cultural Anthropology 3.0 CSU,UC
  - BUSM 52 Principles of Exporting and Importing 3.0 CSU

**Total Units 27.0 - 28.0**

**Recommended Electives:**
- BUSM 61 Work Experience in Business
- BUSM 65 Special Issues in Business
- BUSS 85 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 enhance their management careers. Students will be exposed to projects and business simulations that will lead to measurable successes. Business presentations, business planning, team building, conflict resolution, and computer use are core skills developed in this certificate.

**Requirements for the Certificate**
**Required courses:**
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU

**Level II as follows:**
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 62 Human Resource Management 3.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units 19.0**

**Recommended Electives:**
- BUSM 51 Principles of International Business 3.0 CSU
- BUSM 70 International Marketing Concepts 3.0
- BUSM 81 Work Experience in Business
- BUSS 25 Business Communications 3.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

**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 T0526

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

**Requirements for the Certificate**
**Required courses:**
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU

**Level II as follows:**
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 62 Human Resource Management 3.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units 27.0 - 28.0**

**Recommended Electives:**
- BUSM 51 Principles of International Business 3.0 CSU
- BUSM 70 International Marketing Concepts 3.0
- BUSS 25 Business Communications 3.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

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

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

This intermediate certificate builds upon the Level I Certificate to expose students to the various functions of managers in retail positions. Fundamentals of business organization, retail marketing and staffing provides the student a solid foundation from which to build a career in retail management.

**Requirements for the Certificate**
**Required courses:**
- BUSO 25 Business Communications 3.0 CSU
- BUSO 50 Retail Store Management and Merchandising 3.0
- BUSO 86 Special Issues in Business Quality Improvement
- BUSO 85 Special Issues in Business - Financial
- BUSO 81 Work Experience in Business
- BUSO 52 Principles of International Business

**Total Units 22.0**

**Recommended Electives:**
- BUSS 25 Business Communications 3.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

**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 II
Accounting and Management Department
Certificate L0591

This intermediate certificate builds upon the Level I Certificate to expose students to the various functions of managers in retail positions. Fundamentals of business organization, retail marketing and staffing provides the student a solid foundation from which to build a career in retail management.

**Requirements for the Certificate**
**Required courses:**
- BUSO 25 Business Communications 3.0 CSU
- BUSO 50 Retail Store Management and Merchandising 3.0
- BUSO 86 Special Issues in Business Quality Improvement
- BUSO 85 Special Issues in Business - Financial
- BUSO 81 Work Experience in Business
- BUSO 52 Principles of International Business

**Total Units 22.0**

**Recommended Electives:**
- BUSS 25 Business Communications 3.0
- CISB 15 Microcomputer Applications 4.0 CSU,UC

**Special Information:**
- Students receiving financial aid need to declare the Level III Certificate as their goal to meet Financial Aid requirements.
| BUSM 50 | Retail Store Management and Merchandising | 3.0 |   |
| FASH 62 | Retail Store Management and Merchandising | 3.0 CSU |   |
| CISB 15 | Microcomputer Applications | 4.0 CSU,UC |   |

**Required courses:**
- Completion of the Retail Management - Level II coursework (21.5 Units) as follows:
  - BUSA 11 Fundamentals of Accounting | 3.0 |
  - BUSM 61 Business Organization | 3.0 CSU and Management |
  - BUSM 62 Human Resource Management | 3.0 |
  - BUSM 36 Principles of Marketing | 3.0 CSU |

**Plus the following courses:**
- BUSA 7 Principles of Accounting | 5.0 CSU,UC - Financial |
- BUSM 60 Human Relations in Business | 3.0 CSU |
- BUSO 26 Oral Communications for Business | 3.0 |

**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 II

**Accounting and Management Department Certificate T0590**

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 I coursework (18.5 Units) as follows:
  - 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 |

**Required courses:**
- BUSM 60 Human Relations in Business | 3.0 CSU |
- BUSM 61 Business Organization and Management | 3.0 CSU |
- BUSM 62 Human Resource Management | 3.0 |

**Plus the following courses:**
- BUSA 7 Principles of Accounting | 5.0 CSU,UC - Financial |
- BUSM 10 Principles of Continuous Quality Improvement | 3.0 |
- CISB 15 Microcomputer Applications | 4.0 CSU,UC |

**Total Units:** 30.0

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

### 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 |
  - BUSM 36 Principles of Marketing | 3.0 CSU |

**Required courses:**
- BUSM 60 Human Relations in Business | 3.0 CSU |
- BUSM 61 Business Organization | 3.0 CSU and Management |
- BUSM 62 Human Resource Management | 3.0 |

**Plus the following courses:**
- BUSA 7 Principles of Accounting | 5.0 CSU,UC - Financial |
- BUSM 10 Principles of Continuous Quality Improvement | 3.0 |
- CISB 15 Microcomputer Applications | 4.0 CSU,UC |

**Total Units:** 30.0

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

### Children's Program Certificate: Administration

**Child Development Certificate T1313**

The Children's Program Certificate: Administration Specialization is designed for the student who desires general knowledge about Early Childhood Development and skills in administering programs for young children. This certificate meets or exceeds Title 52 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 | 3.0 CSU,UC |
  - CHILD 5 Principles/Practices in Child Development Programs | 3.0 CSU |
  - CHILD 6 Survey of Child Development Curriculum | 3.0 |
  - 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 |
- CHILD 73 Infant/Toddler Care and Development | 3.0 CSU |

**PLUS Additional required courses:**
- CHILD 50 Multicultural Education: Anti-Bias Perspective | 3.0 |
- CHILD 71A Administration of Child Development Programs | 3.0 CSU |

**Total Units:** 43.0

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

**Child Development 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 work: General - Level I, as follows:
  - CHILD 1 Child, Family and Community | 3.0 CSU,UC |
  - CHILD 5 Principles/Practices in Child Development Programs | 3.0 CSU |
  - CHILD 6 Survey of Child Development Curriculum | 3.0 |
  - CHILD 10 Child Growth and Development | 3.0 CSU,UC |
  - CHILD 10H Child Growth and Development Honors | 3.0 CSU,UC |

**PLUS Select the 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 |
- CHILD 73 Infant/Toddler Care and Development | 3.0 CSU |

**PLUS Additional required courses:**
- CHILD 50 Multicultural Education: Anti-Bias Perspective | 3.0 |
- CHILD 71A Administration of Child Development Programs | 3.0 CSU |

**Total Units:** 19.0

**Section 7**
Children's Program Certificate: General - Level III
Child Development 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:
- CHLD 84 Guidance & Discipline 1.0 CSU
- CHLD 50 Multicultural Education: 3.0 CSU

PLUS
- CHLD 68 Children with Special Needs 3.0 CSU
- CHLD 64 Health, Safety and Nutrition 3.0 CSU

Level II as follows:

Required courses:
- CHLD 10 Child Growth and Development 3.0 CSU,UC
- CHLD 6 Survey of Child Development 3.0 CSU
- CHLD 5 Principles/Practices in Child Development 3.0 CSU
- CHLD 10H Child Growth and Development - Honors
- 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 CSU
- FCS 41 Food Service Management 3.0 CSU

Recommended Electives:
- BUSA 70 Payroll and Tax Accounting 3.0
- BUSA 71 Financial Planning 3.0
- BUSL 18 Business Law 3.0
- BUSL 18H Business Law - Honors 3.0
- BUSM 20 Principles of Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSO 25 Business Communications 3.0
- BUSS 33 Advertising and Promotion 3.0
- BUSS 36 Principles of Marketing 3.0
- CSIB 11 Computer Information Systems 3.0

Total Units 28.0

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 Principles/Practices 3.0 CSU,UC
- CHLD 6 Survey of Child Development 3.0 CSU
- CHLD 5 Principles/Practices in Child Development Programs 3.0 CSU
- CHLD 10 Child Growth and Development - Honors
- 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 CSU
- FCS 41 Food Service Management 3.0 CSU

Recommended Electives:
- BUSA 70 Payroll and Tax Accounting 3.0
- BUSA 71 Financial Planning 3.0
- BUSL 18 Business Law 3.0
- BUSL 18H Business Law - Honors 3.0
- BUSM 20 Principles of Business 3.0
- BUSM 61 Business Organization and Management 3.0
- BUSO 25 Business Communications 3.0
- BUSS 33 Advertising and Promotion 3.0
- BUSS 36 Principles of Marketing 3.0
- CSIB 11 Computer Information Systems 3.0

Total Units 33.0

Computer and Networking Technology - Level I
Electronics and Computer Technology Department
Certificate L0795
The Computer and Networking Technology Certificates prepare students to enter the computer and networking fields as service technicians. The program provides foundations in basic electronics, computer servicing, operating systems, network/server servicing, and customer relations skills. The student will be prepared to perform installation, software configuration, and maintenance, operation, troubleshooting and repair of computers and their associated networking software/hardware. In addition the program prepares students to take the A+, Network+, Server+ and Security+ certification tests offered at testing centers throughout the country. These certifications are CompTIA sponsored and are recognized worldwide as industry benchmarks for computer and networking technician. Further, the student will develop the requisite skills upon which to build in order to seek additional certification.

Requirements for the Certificate
Required courses:
- CNET 60 A+ Certification Preparation 4.0
- CNET 60 A+ Certification Preparation 4.0
- CNET 60 A+ Certification Preparation 4.0
- CNET 60 A+ Certification Preparation 4.0
- ELEC 50B Electronic Circuits (DC) 4.0
- ELEC 50B Electronic Circuits (AC) 4.0
- ELEC 50B Electronic Circuits (AC) 4.0
- ELEC 56 Digital Electronics 4.0

Total Units 30.0 - 31.0
### Programs of Study Leading to a Certificate

#### Computer and Networking Technology - Level II

**Electronics and Computer Technology Department Certificate T0726**

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

**Requirements for the Certificate**

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

**CNET 60** is recommended for those seeking the Level I Certificate. It is a test preparation course for the A+ certification test. CNET 62 is recommended for those seeking the Level II Certificate. It is a test preparation course for the Network+ certification test.

#### Computer Graphic Design/Photography

**Commercial and Entertainment Arts Certificate L1005**

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

**Requirements for the Certificate**

**Required courses:**
- GRAF 1 Computer Graphics Lab 1.0
- GRAF 10 Photo Editing with Photoshop 3.0

**Recommended Electives:**
- GRAF 12 Advanced Photo Editing with Photoshop 3.0
- GRAF 14 Digital Color Management 3.0
- GRAF 16 Digital Image Design with Illustrator & Freehand 3.0
- GRAF 20 Applying Photos and Images in Multimedia 3.0

**Total Units** 24.0

#### Computer Systems Technology

**Electronics and Computer Technology Department Certificate L0924**

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

**Requirements for the Certificate**

**Required courses:**
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- ELEC 12 Computer Simulation and Troubleshooting 2.0

**Recommended Electives:**
- ELEC 51 Electronic Devices 4.0 CSU
- ELEC 56 Digital Electronics 4.0 CSU

**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:**
- ARCH 12 Architectural Materials and Specifications 3.0 CSU
- ARCH 14 Building and Zoning Codes 3.0

**Recommended Electives:**
- ARCH 16 English Composition I 3.0
- ARTB 1 Understanding the Visual Arts 3.0

**Total Units** 22.0

#### Consumer Services

**Consumer Science and Design Technologies Certificate L1321**

This program provides semi-professional training for those who seek immediate employment with the public sector or business establishments such as finance, retail, utilities and telecommunications. Students desiring a Bachelor's Degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses. The possession of a certificate of proficiency is favorably recognized by government, business, and industry and is frequently a requirement for professional advancement. Additional courses beyond those required will enhance student's knowledge in a specialty area. Consult with a professor of Family and Consumer Sciences for further information.

Certificate requirements state that at least half of the required number of units must be taken at Mt. San Antonio College and that in each course taken toward a certificate, a grade of "C" or better must be earned.
Programs of Study Leading to a Certificate

Students who are in the last semester of a certificate program must complete an Application for Certificate form, available at the Admissions and Records Office, in order to be awarded the Certificate.

Requirements for the Certificate

Required courses:

- BUSL 18 Business Law, or 3.0 CSU, UC
- BUSL 18H Business Law - Honors 3.0 CSU, UC
- BUSM 60 Human Relations in Business 3.0 CSU
- FCS 41 Life Management 3.0 CSU
- FCS 80 Financial Planning 3.0 CSU
- or BUSA 71 Financial Planning 3.0 CSU
- or FCS 91 Work Experience in Family and Consumer Sciences 1.0

PLUS

Select four (4) courses from:

- ADJU 68 Administration of Justice 3.0 CSU, UC
- CORS 15 Control and Supervision 3.0
- CORS 10 Introduction to Correctional Sciences 3.0 CSU
- CORS 30 Ethnic Relations in Corrections 3.0

Required courses:

- BUSL 18 Business Law, or 3.0 CSU, UC
- BUSL 18H Business Law - Honors 3.0 CSU, UC
- BUSM 60 Human Relations in Business 3.0 CSU
- FCS 41 Life Management 3.0 CSU
- FCS 80 Financial Planning 3.0 CSU
- or BUSA 71 Financial Planning 3.0 CSU
- or FCS 91 Work Experience in Family and Consumer Sciences 1.0

PLUS

Select two (2) courses from:

- BUSL 36 Paralegal Internship 1.0
- PLUS

Recommended Electives:

- BUSL 36 Paralegal Internship 1.0
- PLUS

Requirements for the Certificate

Certificate T2103

Corrections 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:

- ADJU 68 Administration of Justice 3.0
- CORS 10 Introduction to Correctional Sciences 3.0 CSU
- CORS 30 Ethnic Relations in Corrections 3.0

Education for the Paraprofessional - Level II

Psychology and Education Department

Certificate T2188

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

Requirements for the Certificate

Certificate T2188

Psychology and Education Department

Certificate T2103

This certificate program is designed to give students specific skills for employment in the commercial photographic industry as a digital technician, digital assistant, digital imaging specialist, or photography assistant.

Requirements for the Certificate

- ADJU 68 Administration of Justice 3.0
- CORS 10 Introduction to Correctional Sciences 3.0 CSU
- Cors 30 Ethnic Relations in Corrections 3.0

Recommended Electives:

- BUSL 18 Business Law, or 3.0 CSU, UC
- BUSL 18H Business Law - Honors 3.0 CSU, UC
- BUSM 60 Human Relations in Business 3.0 CSU
- FCS 41 Life Management 3.0 CSU
- FCS 80 Financial Planning 3.0 CSU
- or BUSA 71 Financial Planning 3.0 CSU
- or FCS 91 Work Experience in Family and Consumer Sciences 1.0
Electronics and Computer Technology Department

Certificate T0906

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

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

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

Requirements for the Certificate

**Required courses:**

- **ELEC 11** Technical Applications 3.0 CSU in Microcomputers
- **ELEC 12** Computer Simulation and Troubleshooting 2.0
- **ELEC 50A** Electronic Circuits (DC) 4.0 CSU
- **ELEC 50B** Electronic Circuits (AC) 4.0 CSU
- **ELEC 51** Electronic Devices 4.0 CSU
- **ELEC 53** Communications Circuits 4.0
- **ELEC 54A** Industrial Electronics 4.0 CSU
- **ELEC 54B** Industrial Electronic Systems 3.0 CSU
- **ELEC 55** Microwave Communications 4.0
- **ELEC 56** Digital Electronics 4.0 CSU
- **ELEC 61** Electronic Assembly and Fabrication 2.0 CSU
- **ELEC 74** Microprocessor Systems 4.0 CSU
- **TECH 60** Customer Relations for the Technician 1.0

**Total Units 43.0**

**Recommended Electives:**

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

**Electronics Communications Technology Department

Certificate T0904**

This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. The Electronics Communications curriculum encompasses advanced coursework in electronics communications. This includes both land-based and wireless forms of communications. The curriculum culminates with microwave communications coursework that includes radar, PCS, GPS, and satellite operations. Two additional certificate programs are also available: a one-year certificate in Electronics Technology, and a one-year certificate having the same title as the A.S. Degree. All students completing an Electronics A.S. Degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License, and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

**Requirements for the Certificate**

**Required courses:**

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

**Total Units 22.0**

**Electronics Technology

Electronics and Computer Technology Department

Certificate L0905**

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

**Requirements for the Certificate**

**Required courses:**

- **ELEC 11** Technical Applications 3.0 CSU in Microcomputers
- **ELEC 50A** Electronic Circuits (DC) 4.0 CSU
- **ELEC 50B** Electronic Circuits (AC) 4.0 CSU
- **ELEC 51** Electronic Devices 4.0 CSU
- **ELEC 56** Digital Electronics 4.0 CSU
- **ELEC 61** Electronic Assembly and Fabrication 2.0 CSU

**Total Units 32.0**

**Electronics: Industrial Systems

Electronics and Computer Technology Department

Certificate T0908**

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

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

**Requirements for the Certificate**

**Required courses:**

- **ELEC 11** Technical Applications 3.0 CSU in Microcomputers
- **ELEC 12** Computer Simulation and Troubleshooting 2.0
- **ELEC 50A** Electronic Circuits (DC) 4.0 CSU
- **ELEC 50B** Electronic Circuits (AC) 4.0 CSU
- **ELEC 51** Electronic Devices 4.0 CSU
- **ELEC 53** Communications Circuits 4.0
- **ELEC 55** Microwave Communications 4.0
- **ELEC 56** Digital Electronics 4.0 CSU
- **ELEC 61** Electronic Assembly and Fabrication 2.0 CSU
- **TECH 60** Customer Relations for the Technician 1.0

**Total Units 31.0**

**Emergency Medical Technician - Paramedic (EMT-P)

Medical Services Department

Certificate T1281**

This Paramedic Program is accredited by CAHHEP (Committee on Accreditation of Allied Health Education Programs) and approved by the Los Angeles County Department of Health Services as meeting and exceeding the minimum standards as specified in Title 22 of the California Code of Regulations and the federal Department of Transportation national standard curriculum. It is designed to train paramedics to work on ambulances and in the fire service.

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 1** Fundamentals for Paramedics 4.0
- **EMS 10** Anatomy and Physiology 2.0 for Paramedics
Programs of Study Leading to a Certificate

EMS 20 Emergency Cardiac Care for Paramedics 1.0
EMS 30 Pharmacology for Paramedics 2.0
EMS 40 Cardiology for Paramedics 5.0
EMS 50 Paramedic Skills Competency 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 41.00

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

The Emergency Medical Services faculty recommends 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 on all final exams, per academic standards for admission, applicants must be in the Health Science Programs Office (909) 594-5611,Ext.4265 is open Monday through Friday.

Application Requirements and Selection Procedures

Application Requirements:

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

1) Be an EMT-I, currently certified in California.
2) Submit a letter on official stationery from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last 2 years.
3) File a College application and be accepted as a student at Mt. San Antonio College.
4) Submit an application for the Paramedic Program to the Health Sciences Programs Office (909) 594-5611.

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.

Entrance Procedure:

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

1) Completion of all application requirements
2) Ability to distinguish and identify colors
3) Ability to recognize a full range of tones
4) Ability to see clearly 20 feet or more
5) Take the AWE (Assessment of Written English), the Mt. SAC Math Placement Test, and the Degrees of Reading Power reading test at least 10 working days before the start of the pre-course (EMS 1). Placement examinations will be individually assessed to determine eligibility. The placement test is administered by the Assessment Center, located in the Student Services Center. If required, arrange with the Center a day and time to take the examination. The Assessment Center (909) 594-5611, Ext. 4265 is open Monday through Friday.
6) Successful completion of EMS 1 — Fundamentals for Paramedics.
7) Forward two (2) official transcripts of all coursework completed (high school, EMT-I, Fire Science, and college work other than Mt. San Antonio College courses). One transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office.

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

Courage: ability to speak, write and read English to be transferred

Admission into the program. In addition, drug testing may be required as part of the physical examination and/or requested by the college or one of its agents.

Entrance Procedure:

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

1) Completion of all application requirements
2) Ability to distinguish and identify colors
3) Ability to recognize a full range of tones
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7) Forward two (2) official transcripts of all coursework completed (high school, EMT-I, Fire Science, and college work other than Mt. San Antonio College courses). One transcript must be sent to the Health Science Programs Office; the other to the Admissions and Records Office.

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

Physical Demands:

- Color vision: ability to distinguish and identify colors
- Sensory Demands:
  - Shallow depth perception
  - May be required to perform fine motor movements with hands and fingers
  - Perform considerable reaching, stooping, bending, kneeling, and crouching
  - Vision: ability to see clearly 20 inches or less
  - Hearing: ability to recognize a full range of tones

Working Environment:

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations

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 L0900

The Engineering Design Technology Level I Certificate is designed to prepare students for entry-level employment in the technical and computer-aided drafting design fields. Upon completion of the Level I Certificate, students will be prepared in fundamental working practices related to the technical design 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 4.0 CSU
- EDT 18 Engineering CAD Applications 4.0 CSU
- Plus

Select one (1) course from:

- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- MFG 11 Manufacturing Processes I 2.0 CSU

Total Units 19.0 - 21.0

Special Information:

Students interested in pursuing transfer and a Bachelor's Degree in Engineering or Engineering Technology are advised to verify with each transfer institution specific requirements for transfer and appropriate courses. Requirements vary depending on specialty and institution and may include areas such as math at the levels of calculus or trigonometry at a minimum. See the Mt. SAC catalog under either Engineering or Surveying for a list of transferable engineering courses.
Engineering Design Technology - Level II
Architecture and Engineering Design Department
Certificate T0915

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

Requirements for the Certificate
Required courses:
Level I as follows:
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
or ELEC 50A Electronic Circuits (DC) 4.0 CSU

Required courses:
Level II as follows:
EDT 20 Technical Descriptive Geometry 3.0 CU
EDT 24 Engineering CAD 3-D Solids and Surfaces 3.0 CSU
ELEC 50B Electronic Circuits (AC) 4.0 CSU
MFG 11 Manufacturing Processes I 2.0 CSU
or ELEC 50A Electronic Circuits (DC) 4.0 CSU

Required courses:
Level III as follows:
EDT 26 Civil Engineering Technology and CAD 3.0 CSU
EDT 28 Engineering CAD 3-D Illustration/Animation 3.0 CU

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:

Child Development
Certificate L1316

CHLD 1 Child, Family and Community 3.0 CU
CHLD 5 Principles/Practices in Child Development Programs 3.0 CU
CHLD 6 Survey of Child Development Curriculum 3.0 CU
CHLD 10 Child Growth and Development or 3.0 CU
CHLD 10H Child Growth and Development - Honors 3.0 CU
CHLD 92 Family Child Care 3.0

Plus the following courses:

CHLD 64 Health, Safety and Nutrition of Young Children 3.0 CU
CHLD 68 Children with Special Needs 3.0 CU
CHLD 84 Guidance and Discipline in Child Development Settings 1.0 CU

PLUS Select one (1) course from:

CHLD 50 Multicultural Education: Anti-Bias Perspective 3.0
CHLD 66 Early Childhood Development Observation Laboratory 2.0 CU
CHLD 66L Early Childhood Development Observation Laboratory 1.0 CU
CHLD 72 Teacher, Parent and Child Relationships 3.0
CHLD 73 Infant/Toddler Care and Development 3.0 CU

Total Units: 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:

Fashion Design: Level I
Certificate L1397

FASH 8 Introduction to Fashion 3.0 CU
FASH 10 Clothing Construction I 3.0 CU
FASH 12 Clothing Construction II 3.0 CU
FASH 15 Fashion Strategies 3.0 CU
FASH 20 Illustration for Fashion and Costume Design 3.0
FASH 21 Patternmaking I 3.0 CU
FASH 22 Fashion Design By Draping 3.0
FASH 23 Patternmaking II 3.0
FASH 30 Fashion Design and Product Development I 3.0

Total Units: 27.0

Fashion Design - Level II
Consumer Science and Design Technologies
Certificate T1389

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:

Fashion Design: Level II
Certificate T1389

FASH 8 Introduction to Fashion 3.0 CU
FASH 10 Clothing Construction I 3.0 CU
### Programs of Study Leading to a Certificate

#### Fashion Merchandising - Level II
**Consumer Science and Design Technologies Certificate L1303**

The Fashion Merchandising Level II Certificate is designed to build upon the Fashion Merchandising - Level I Certificate to provide students with proven business and management tools that will increase their practical understanding of merchandising and marketing. Students will be exposed to projects and visual display coursework (15 units) as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>FASH 12</td>
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<td>CSU</td>
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<tr>
<td>FASH 15</td>
<td>Fashion Strategies</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>FASH 20</td>
<td>Illustration for Fashion and Costume Design</td>
<td>3.0</td>
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<tr>
<td>FASH 21</td>
<td>Patternmaking I</td>
<td>3.0</td>
<td>CSU</td>
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<tr>
<td>FASH 22</td>
<td>Fashion Design By Draping</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>FASH 23</td>
<td>Patternmaking II</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
<td></td>
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</tbody>
</table>

**Plus the following courses:**

**Level II as follows:**

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 9</td>
<td>History of Costume and Fashion</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>FASH 62</td>
<td>Retail Store Management and Merchandising</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSS 50</td>
<td>Retail Store Management and Merchandising</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>FASH 63</td>
<td>Advertising and Promotion</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>BUSS 33</td>
<td>Advertising and Promotion</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>FASH 66</td>
<td>Visual Merchandising Display</td>
<td>3.0</td>
<td>CSU</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

- FASH 25: Fashion Computer-Assisted Drawing
- FASH 26: Fashion Computer Assisted Design
- FASH 60: Field Studies
- FASH 61: Field Studies - New York
- FASH 62: Field Studies - Fashion Capital

**Total Units**: 27.0

#### Fire Science Technology Department Certificate L2105

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 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**

- AGAB 20: Microcomputer Applications in Agriculture 3.0 CSU,UC
- AGAG 59: Work Experience in Agriculture 1.0 - 4.0
- AGAN 2: Animal Nutrition 3.0 CSU
- AGAN 94: Animal Breeding 3.0
- AGLI 16: Horse Production 4.0 CSU,UC
- AGLI 18: Horse Ranch Management 4.0 CSU
- AGLI 19: Horse Hoof Care 2.0 CSU
- AGLI 96: Animal Sanitation and Disease Control 3.0 CSU
- AGLI 97: Artificial Insemination of Livestock 2.0

**Recommended Electives:**

- PE-F 50: Arson and Fire Investigation 3.0 CSU
- FIRE 11: Fire Apparatus and Equipment 3.0 CSU
- FIRE 12: Wildland Fire Control 4.5 CSU
- FIRE 86: Basic Fire Academy 15.5
- PE-F 53: Physical Training for the Basic Fire Academy 2.5 CSU

**Total Units**: 27.5 - 38.0

#### Horse Ranch Management
**Agricultural Sciences Department Certificate L1012**

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**

- AGAB 20: Microcomputer Applications in Agriculture 3.0 CSU,UC
- AGAG 59: Work Experience in Agriculture 1.0 - 4.0
- AGAN 2: Animal Nutrition 3.0 CSU
- AGAN 94: Animal Breeding 3.0
- AGLI 16: Horse Production 4.0 CSU,UC
- AGLI 18: Horse Ranch Management 4.0 CSU
- AGLI 19: Horse Hoof Care 2.0 CSU
- AGLI 96: Animal Sanitation and Disease Control 3.0 CSU
- AGLI 97: Artificial Insemination of Livestock 2.0

**Recommended Electives:**

- NF 20: Principles of Foods with Lab 3.0 CSU

**Total Units**: 20.5

#### Hospitality: Catering
**Consumer Science and Design Technologies Certificate L1395**

The Hospitality: Catering Certificate will prepare students for catering and banquet job opportunities in the hospitality industry. The program emphasizes menu planning, food preparation, service and catering management.

**Requirements for the Certificate**

- HRM 51: Introduction to Hospitality 3.0 CSU
- HRM 52: Food Safety and Sanitation 1.5 CSU
- HRM 53: Dining Room Service 3.0 CSU
- HRM 54: Basic Cooking Techniques 3.0 CSU
- HRM 61: Menu Planning 3.0 CSU
- HRM 62: Catering 3.0 CSU
- HRM 91: Work Experience in Restaurant/Hospitality 1.0 CSU
- NF 20: Principles of Foods with Lab 3.0 CSU

**Total Units**: 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**

- 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**: 19.0
**Hospitality: Restaurant Management - Level II**  
*Consumer Science and Design Technologies Certificate L1319*

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

**Requirements for the Certificate**

**Required courses:**
- HRM 51 Introduction to Hospitality 3.0 CSU
- HRM 52 Food Safety and Sanitation 1.5 CSU
- HRM 53 Dining Room Service 3.0 CSU
- HRM 54 Basic Cooking Techniques 3.0 CSU
- HRM 57 Restaurant Cost Control 3.0 CSU
- HRM 54 Basic Cooking Techniques 3.0 CSU
- HRM 54 Basic Cooking Techniques 3.0 CSU
- HRM 57 Restaurant Cost Control 3.0 CSU
- NF 28 Cultural and Ethnic Foods 3.0 CSU,UC
- Total Units 19.5

**Infant/Toddler 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 11 Child, Family and Community 3.0 CSU,UC
- CHLD 5 Principles/Practices 3.0 CSU
- CHLD 6 Survey of Child Development 3.0 CSU
- CHLD 10 Child Growth and Development 3.0 CSU,UC
- CHLD 10H Child Growth and Development 3.0 CSU,UC Honors
- CHLD 73 Infant/Toddler Care and Development 3.0 CSU
- CHLD 85 Infants At Risk 3.0
- PLUS Select four (4) courses from:
  - CHLD 12 Multicultural Education: Anti-Bias Perspective 3.0

**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 4.0 CSU
- Total Units 9.0

**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 intermediate position as an assistant to a designer, library coordinator, or a specialization in the field of interior design.

**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 4.0 CSU
- Total Units 9.0

**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 a specialization in the field of interior design.

**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 4.0 CSU
- Total Units 9.0

**Elective courses:**
- ID 50 Interior Design Specialized Studio 3.0
- ID 52 Interior Design Laboratory Studies 3.0

**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 qualify 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.

**Required for the Certificate**

**Completion of the 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 and Decorative Arts 4.0 CSU
- Total Units 9.0

**Elective courses:**
- ID 50 Interior Design Specialized Studio 3.0
- ID 52 Independent Studies in Interior Design 3.0
- Total Units 50.0
Programs of Study Leading to a Certificate

And 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 3.0
- ID 23 Computer Aided Drawing 3.0
- ID 24 Rapid Visualization 3.0
- ID 25 Codes and Specifications 3.0
- ID 26 Space Planning for Interior Design 3.0
- ID 27 Interior Design Studio 3.0

Elective courses:

- ID 48 Internship in Kitchen and Bath 2.0
- ID 41 Kitchen and Bath Studio II 3.0

Required courses for Kitchen and Bath Specialization:

- ID 31 Building Systems 3.0 CSU
- ID 32 Lighting Design 3.0 CSU
- ID 34 Computer Aided Drawing for Interior Design II 3.0 CSU
- ID 36 Professional Practices 3.0 CSU
- ID 37 Business Practice 3.0 CSU
- ID 38 Internship in Interior Design 2.0 CSU

Total Units: 58.0

And completion of the required Interior Design: Level III coursework as follows:

- ID 31 Building Systems for Interior Design 3.0 CSU
- ID 32 Lighting Design for Interior Design 3.0 CSU
- ID 34 Computer Aided Drawing for Interior Design II 3.0 CSU
- ID 36 Professional Practices for Interior Design 3.0 CSU
- ID 37 Business Practice for Interior Design 3.0 CSU
- ID 38 Internship in Interior Design 2.0 CSU

Required courses:

- ID 39 Interior Design Studio II 3.0 CSU

Total Units: 24.0

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.

Total Units: 27.0

Landscape Design and Construction

Agricultural Sciences Department

Certificate L0109

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

Requirements for the Certificate

- AGOR 1 Horticultural Science 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
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU
- AGOR 50 Soil Science 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 CSU

Total Units: 33.0

Landscape Equipment Technology

Agricultural Sciences Department

Certificate T0117

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

- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU
- AGOR 30 Ornamental Plants - Trees and Woody Shrubs 3.0 CSU
- AGOR 50 Soil Science 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 CSU
- AGOR 71 Landscape Construction Fundamentals 3.0 CSU

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

- ADJU 1 The Administration of Justice System 3.0 CSU
- ADJU 2 Principles and Procedures of the Justice System 3.0 CSU
### Marketing Management

**Business Administration Department**  
**Certificate L0510**

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

- **Total Units**: 51.0

### Mental Health Technology - Psychiatric Technician

**Psychiatric Technician Department**  
**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENT 40</td>
<td>Interviewing and Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>MENT 56</td>
<td>Medical-Surgical Nursing for Psychiatric Technicians</td>
<td>9.0</td>
</tr>
<tr>
<td>MENT 56L</td>
<td>Clinical Experience</td>
<td>4.0</td>
</tr>
<tr>
<td>MENT 58D</td>
<td>Advanced Medical-Surgical Nursing and Pharmacology for PT</td>
<td>4.0</td>
</tr>
<tr>
<td>MENT 58L</td>
<td>Advanced Medical-Surgical Nursing for Psychiatric Technicians</td>
<td>1.5</td>
</tr>
<tr>
<td>MENT 60</td>
<td>Introduction to Psychiatric Technology</td>
<td>1.5</td>
</tr>
<tr>
<td>MENT 70L</td>
<td>Introduction to Psychiatric Technology Clinical Technicians</td>
<td>2.0</td>
</tr>
<tr>
<td>MENT 72</td>
<td>Nursing Care of the Developmentally Disabled Person</td>
<td>7.0</td>
</tr>
<tr>
<td>MENT 72L</td>
<td>Nursing Care of the Developmentally Disabled Person - Clinical</td>
<td>5.5</td>
</tr>
</tbody>
</table>

- **Total Units**: 25.0

### Programs of Study Leading to a Certificate

**Certificate T0918**

**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  
  - 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 Modelling 2.0  
  - MFG 19 Parametric Solid Modelling 2.0 for Manufacturing  
  - 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 Numerical Control (CNC) Programming 2.0  

**PLUS**

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

- **Total Units**: 27.0
Programs of Study Leading to a Certificate

Programs of Study Leading to a Certificate

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 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)
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

Working Environment:

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

English Language Skills:

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

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 Microsoft Windows 2.0 CSU
- CISN 21 Windows Operating System 4.0 CSU
- CISB 15 Microcomputer Applications 4.0 CSU, UC
- CISB 21 Microsoft Excel 4.0
- CISD 01 Database Management - Microsoft Access 4.0 CSU
- CISW 11 Introduction to Internet Technologies 4.0 CSU
- CISB 51 Microsoft PowerPoint 3.0

Total Units 21.0 - 23.0

Nursery Management

Agricultural Sciences Department Certificate L0107

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

Requirements for the Certificate

Required courses:

- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 2 Plant Propagation/Greenhouse Management 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU, UC
- AGOR 30 Ornamental Plants 3.0 CSU, UC
- AGOR 32 Landscape 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 CSU

Total Units 21.0 - 23.0

Park Management

Agricultural Sciences Department Certificate T0186

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

Requirements for the Certificate

Required courses:

- AGOR 1 Horticultural Science 3.0 CSU
- AGOR 4 Park Management 3.0
- AGOR 5 Park Facilities 3.0
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 30 Ornamental Plants 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
- AGOR 63 Landscape Irrigation Systems Management 3.0
- AGOR 75 Urban Arboriculture 3.0

Total Units 30.0

Pet Science

Agricultural Sciences Department Certificate T0104

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

Requirements for the Certificate

Required courses:

- AGAB 20 Microcomputer Applications in Agriculture 3.0 CSU, UC
- AGAN 1 Animal Science 3.0 CSU, UC
- AGAN 2 Animal Nutrition 3.0 CSU, UC
- AGAN 51 Animal Handling and Restraint 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLU 96 Animal Sanitation and Disease Control 3.0 CSU
- AGPE 70 Pet Shop Management 3.0
- AGPE 71 Canine Management 3.0
**PHOT 2 Laboratory Studies: Color Photography**

**PHOT 1 Laboratory Studies:**

**GRAP 12 Advanced Photo Editing with Photoshop**

**ARTB 1 Understanding the Visual Arts**

**AHIS 1 Understanding the Visual Arts**

**Recommended Electives:**

**PHOT 28 Photography Portfolio 2.0**

**PHOT 30 Commercial and Illustrative Photography 3.0**

**PHOT 15 History of Photography**

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**Programs of Study Leading to a Certificate**

**PHOT 20 Color Photography 3.0**

**PHOT 17 Photocommunication 3.0**

**PHOT 18 Portraiture and Wedding Photography 3.0**

**PHOT 17 Photocommunication 3.0**

**PHOT 28 Photography Portfolio 2.0**

**PHOT 30 Commercial and Illustrative Photography 3.0**

**Total Units 27.0**

**Programming In C++**

**Computer Information Systems Department Certificate L0794**

This certificate program is intended to prepare students to use the C++ programming language in a business environment.

**Requirements for the Certificate**

**Required courses:**

| CISP 11 | Computer Information Systems | 3.5 | CSU, UC |
| CSD 11 | Database Management | 4.0 | CSU |
| CSM 11 | Systems Analysis and Design | 3.5 | CSU, UC |
| CISP 31 | Programming in C++ | 4.0 | CSU, UC |
| CISP 34 | Advanced C++ Programming | 4.0 | CSU, UC |

**Total Units 23.0**

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**Programming In Visual Basic**

**Computer Information Systems Department Certificate L0789**

This certificate is intended to prepare students to work in Visual Basic which is used to develop graphical user interfaces and client/server applications.

**Requirements for the Certificate**

**Required courses:**

| CISP 11 | Computer Information Systems | 3.5 | CSU, UC |
| CSD 11 | Database Management | 4.0 | CSU |
| CSM 11 | Systems Analysis and Design | 3.5 | CSU, UC |
| CISP 14 | Advanced Visual Basic | 4.0 | CSU, UC |
| CISP 34 | Programming in Visual Basic | 4.0 | CSU, UC |

**Total Units 19.0**

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**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 | 3.0 |
| PUB 158 | Municipal and Urban Tree Care | 3.0 |

| AGOR 1 | Horticultural Science | 3.0 |
| AGOR 39 | Turf Grass Production and Management | 3.0 |

**Total Units 12.00**

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**Radio Broadcasting: On the Air**

**Commercial and Entertainment Arts Certificate T0605**

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

**Requirements for the Certificate**

**Required courses:**

| R-TV 03 | Sportscasting and Reporting | 1.5 |
| R-TV 04 | Broadcast News Field Reporting | 1.5 |
| R-TV 05 | Radio-TV Newswriting | 3.0 |
| R-TV 07A | Beginning Radio Production | 3.0 |
| R-TV 09 | Broadcast Sales and Promotion | 3.0 |
| R-TV 10 | Radio Management and Programming | 3.0 |
| R-TV 11A | Beginning Radio Production | 3.0 |
| R-TV 11B | Advanced Radio Production | 3.0 |
| R-TV 15 | Broadcast Business Practices | 3.0 |
| R-TV 16 | Broadcast Career Preparation | 3.0 |
| R-TV 97A | Radio/Entertainment Industry Seminar | 1.0 |
| R-TV 97B | Radio/Entertainment Industry Internship | 1.0 |

**Total Units 29.0 - 30.0**

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**Radio Broadcasting: Behind the Scenes**

**Commercial and Entertainment Arts Certificate T0606**

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

**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 05 | Radio-TV Newswriting | 3.0 |
| R-TV 07A | Beginning Commercial Voice-Overs | 3.0 |
| R-TV 11A | Beginning Radio Production | 3.0 |
| R-TV 11B | Advanced Radio Production | 3.0 |
| R-TV 15 | Broadcast Business Practices | 3.0 |
| R-TV 16 | Broadcast Career Preparation | 3.0 |
| R-TV 97A | Radio/Entertainment Industry Seminar | 1.0 |
| R-TV 97B | Radio/Entertainment Industry Internship | 1.0 |
| R-TV 97C | KSAR Radio Internet Radio Internship | 1.0 or 2.0 |

**PLUS**

Select six (6) units from:

| R-TV 02 | On-Air Personality Development | 3.0 |
| R-TV 05 | Radio-TV Newswriting | 3.0 |
| R-TV 07A | Beginning Commercial Voice-Overs | 3.0 |
| R-TV 11A | Beginning Radio Production | 3.0 |
| R-TV 11B | Advanced Radio Production | 3.0 |
| R-TV 15 | Broadcast Business Practices | 3.0 |
| R-TV 16 | Broadcast Career Preparation | 3.0 |
| R-TV 97A | Radio/Entertainment Industry Seminar | 1.0 |
| R-TV 97B | Radio/Entertainment Industry Internship | 1.0 |
| R-TV 97C | KSAR Radio Internet Radio Internship | 1.0 or 2.0 |

**Total Units 29.0 - 30.0**
### Programs of Study Leading to a Certificate

#### 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 units.

#### Requirements for the Certificate

**Required courses:**

- BUSR 50 Real Estate Principles 3.0 CSU
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 52 Real Estate Practice 3.0
- BUSR 53 Real Estate Economics 3.0
- BUSR 54 Income Tax Aspects of Real Estate Investments 3.0
- BUSR 69 Real Estate Property Management 3.0
- BUSR 76 Escrow Procedures I 3.0
- BUSR 78 Elements of Construction 3.0

**Total Units** 31.0 - 33.0

#### 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
- 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 three (3) courses from:

- BUSR 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 3.0
- BUSR 76 Escrow Procedures I 3.0
- BUSR 78 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. The 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
- CHLD 5 Principles/Practices in Child Development Programs 3.0 CSU

**Total Units** 18.5

#### 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.

#### Requirements for the Certificate

**Required courses:**

- SIGN 105 American Sign Language 5 4.0
- SIGN 108 Fingerspelling 2.0
- SIGN 201 Deaf Perspectives 3.0
- SIGN 202 American Deaf Culture 3.0 CSU,UC
- SIGN 210 American Sign Language Structure 3.0 CSU,UC
- SIGN 220 Translation: American Sign Language/English 3.0 CSU
- SIGN 223 Principles of Interpreting 3.0 CSU
- SIGN 225 Ethical Decision Making 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 202 American Deaf Culture 3.0 CSU,UC
- SIGN 201 Deaf Perspectives 3.0
- SIGN 220 Translation: American Sign Language/English 3.0 CSU
- SIGN 223 Principles of Interpreting 3.0 CSU
- SIGN 225 Ethical Decision Making 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

**Total Units** 40.0 - 43.0

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**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.
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 3.0 CSU,UC
AGOR 39 Turf Grass Production 3.0 CSU
AGOR 40 Sports Turf Management 3.0
AGOR 50 Soil Science and Management 3.0 CSU,UC
AGOR 51 Tractor and Landscape 3.0 CSU
AGOR 52 Equipment Operations 3.0 CSU
AGOR 62 Landscape Irrigation 3.0 CSU
AGOR 63 Landscape Irrigation 3.0
AGOR 64 Cross Connection Control 3.0
AGOR 65 Water Hydraulics 3.0
Total Units 27.0

PLUS
Select nine (9) units from:
R-TV 18 Writing for Television/Film 3.0 CSU
R-TV 20 Television News Production 3.0
R-TV 21 Remote Television Production and Engineering 3.5
R-TV 22 Editing for Film and Television 3.0 Total Units 26.0

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
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 15 Broadcast Business Practices 3.0
R-TV 19A Beginning Television Production 3.0 CSU
R-TV 19B Advanced Television Production 3.0 CSU
R-TV 100 Work Experience in Film and TV 2.0

R-TV 19B Advanced Television Production 3.0 CSU
R-TV 20 Television News Production 3.0
R-TV 21 Remote Television Production 3.5 and Engineering
R-TV 22 Editing for Film and Television 3.0

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 3.0 and Instrumentation Total Units 18.0

Recommended Electives:
WATR 63 Cross Connection Control 3.0
WATR 64 Cross Connection Control 3.0 - Certified Specialist
WATR 65 Water Hydraulics 3.0 and Instrumentation
Total Units 18.0

Web Page Design
Commercial and Entertainment Arts Department
Certificate L0618
This certificate program is designed to provide students with a combination of aesthetic design principles and the technical expertise necessary for employment as a Web page designer.

Requirements for the Certificate
Required courses:
ARTC 70 Computer Graphics: Introduction 3.0 CSU
ARTC 74 Computer Graphics: 3.0 CSU
ARTC 171 Computer Graphics 2 3.0 CSU
ARTC 20 Design: Two Dimensional 3.0 CSU,UC
COM 13 Using Web Page Software 4.0 CSU
PHOT 10 Beginning Photography 3.0 CSU,UC
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 61 Grade II Water Treatment Operator Certification 3.0
WELD 62 Grade III Water Treatment Operator Certification 3.0
WELD 70A Beginning Arc Welding 3.0
WELD 70B Intermediate Arc Welding 3.0
WELD 70C Certification for Welders 3.0
WELD 80 Fabrication and Construction 3.0 Welding
WELD 81 Pipe and Tube Welding 3.0 Total Units 27.0

Note: Any higher level welding courses may be substituted for WELD 40.
**Programs of Study Leading to a Certificate**

**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
- and Computations for Welders
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction 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.

**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 structural steel and 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
- and Computations for Welders
- WELD 70A Beginning Arc Welding 3.0
- WELD 70B Intermediate Arc Welding 3.0
- WELD 70C Certification for Welders 3.0
- WELD 80 Fabrication and Construction 3.0
- WELD 81 Pipe and Tube Welding 3.0
- WELD 90B Gas Tungsten Arc Welding 3.0
- WELD 90A Semiautomatic Arc Welding 3.0

**Total Units 30.0**

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

**WELD 53A Welding Metallurgy 3.0 CSU**

**WELD 60 Print Reading 3.0**

**WELD 70A Beginning Arc Welding 3.0**

**WELD 70B Intermediate Arc Welding 3.0**

**WELD 70C Certification for Welders 3.0**

**WELD 80 Fabrication and Construction 3.0**

**WELD 81 Pipe and Tube Welding 3.0**

**WELD 90B Gas Tungsten Arc Welding 3.0**

**WELD 90A Semiautomatic Arc Welding 3.0**

**SKILLS CERTIFICATES**

**Accounting - Bookkeeping**

**Accounting and Management Department Certificate E0504**

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

**Requirements for the Certificate**

**Required courses:**

- BUSA 7 Principles of Accounting 5.0 CSU, UC
  - Financial
  - or
- BUSA 72 Bookkeeping - Accounting 5.0
  - or
- BUSA 53 Ten-Key Calculations 2.0
  - or
- BUSA 81 Work Experience in Accounting 1.0
  - or
- BUSO 5 Business English 3.0
  - or
- BUSO 25 Business Communications 3.0 CSU
  - Total Units 9.0 - 10.0

BUS 7 can be substituted for BUSA 72 for those students pursuing a higher level certificate/degree or plan on taking a course for which BUS 7 is a prerequisite.

**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
  - Financial
  - or
- BUSA 72 Bookkeeping - Accounting 5.0
  - or
- BUSA 81 Work Experience in Accounting 1.0
  - or
- BUSO 5 Business English 3.0
  - or
- BUSO 25 Business Communications 3.0 CSU
  - 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
- or
- CSI 11 Computer Keyboarding 3.0 CSU
  - or
- CSI 11A Computer Keyboarding 1.5 CSU
  - and
- CSI 11B Computer Keyboarding 1.5 CSU
  - or
- CSI 41 Office Management Skills 3.0
  - Total Units 13.0
Art: Aesthetics for Technology
Commercial and Entertainment Arts Certificate E1013
The certificate program is designed for the student thinking about joining the professional work force or seeking current job advancement. It provides design skills necessary in art and technology related industries. A variety of career opportunities are available in Art, Advertising, Graphic Design, Animation, Journalism, and Multimedia. Working professionals or students who hold current certificates offered by the Computer Information Systems Department, Photographics, Architecture and Design Department, the Family and Consumer Sciences Department, and wish to augment their design skills, would find this certificate beneficial.

Requirements for the Certificate
Required courses:
ARTC 70 Computer Graphics: Introduction 3.0 CSU
ARTC 171 Computer Graphics 2: Layout and Design with QuarkXPress 3.0 CSU
ARTD 15A Drawing: Beginning 3.0 CSU,UC
ARTD 20 Design: Two Dimensional 3.0 CSU,UC
Total Units 12.0

Recommended Electives:
ARTC 60 Graphic Design: Lettering and Typography
ARTC 74 Computer Graphics: Web Page Design
ARTC 161 Graphic Design/Layout
ARTC 165 Illustration
ARTD 25A Painting: Beginning

Athletic Trainer Aide I
Physical Education Department Certificate E0802
The Athletic Trainer Aide I Certificate provides minimal experience necessary to assist High School Athletic Trainers and Athletic Health Care Providers in the community. Students desiring a Bachelor's Degree (transfer program) should consult with an advisor to discuss transferability of courses.

Requirements for the Certificate
Required courses:
PE 3 First Aid and CPR 3.0 CSU,UC
PE 5 Advanced First Aid/CPR/Emergency Response 3.0 CSU
PE 19 Introduction to Care/Prevention of Activity/Sports-Related Injuries 3.0 CSU,UC
PE 34 Fitness for Living 3.0 CSU,UC
PE 92 Work Experience 2.0
- Athletic Training 11.0

Business: Human Resource Management - Level I
Accounting and Management Department Certificate E0531
This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. This certificate may aid the student's search for an entry-level job in the business world.

Requirements for the Certificate
Required courses:
BUSM 20 Principles of Business 3.0 CSU,UC
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 62 Human Resource Management 3.0
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: 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 62 Human Resource Management 3.0
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 be exposed to the terms, trends, organizational structure, and opportunities inherent in business management. Upon completion of the Business Management - Level I Certificate students may qualify for an entry-level management position in California's diverse economy.

Requirements for the Certificate
Required courses:
BUSM 20 Principles of Business 3.0 CSU,UC
BUSM 61 Business Organization and Management 3.0 CSU
BUSM 76 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: Retail Management - Level I
Accounting and Management Department Certificate E0500
Introductory 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:
BUSM 25 Business Communications 3.0 CSU
CSBM 15 Microcomputer Applications 4.0 CSU
GHSM 62 Retail Store Management and Merchandising 3.0 CSU
or
BUSM 76 Principles of Marketing 3.0 CSU
BUSM 50 Retail Store Management and Merchandising 3.0
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 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,UC
Total Units 12.0

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

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:
- CISD 14 Advanced Database 4.0
- CISD 11 Database Management 4.0
- CISD 21 Database Management 4.0
- CISD 31 Database Management – Oracle 4.0
- CISD 10 Principles of Object-Oriented Design 2.0
- CISP 10 Programming in Visual Basic 4.0
- CISP 11 Programming in Java 4.0
- CISP 21 Programming in C++ 4.0
- CISP 41 Programming in C# 4.0
- CISP 24 Advanced Java Programming 4.0
- CISP 34 Advanced C++ Programming 4.0
- CISP 44 Advanced Programming in C# 4.0

Total Units 14.0

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:
- CISD 40 Database Design 3.0
- CISD 31 Database Management - Oracle 4.0
- CISD 21 Database Management 4.0
- CISD 40 Database Design 3.0
- CISD 14 Advanced Database 4.0
- CISD 21 Database Management – Microsoft Access 4.0
- CISD 10 Principles of Object-Oriented Design 2.0
- CISP 21 Programming in Java 4.0
- CISP 31 Programming in C++ 4.0
- CISP 41 Programming in C# 4.0
- CISP 24 Advanced Java Programming 4.0
- CISP 34 Advanced C++ Programming 4.0
- 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:
- CISD 21 Database Management 4.0
- CISD 14 Advanced Database 4.0
- CISD 21 Database Management – Microsoft Access 4.0
- CISD 10 Principles of Object-Oriented Design 2.0
- CISP 21 Programming in Java 4.0
- CISP 31 Programming in C++ 4.0
- CISP 41 Programming in C# 4.0
- CISP 24 Advanced Java Programming 4.0
- CISP 34 Advanced C++ Programming 4.0
- CISP 44 Advanced Programming in C# 4.0

Total Units 8.0

CIS Professional Certificate in LINUX Programming
Computer Information Systems Department
Certificate E0796
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, manage, and troubleshoot 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:
- CISD 21 Database Management 4.0
- CISD 14 Advanced Database 4.0
- CISD 21 Database Management – Microsoft Access 4.0
- CISD 10 Principles of Object-Oriented Design 2.0
- CISP 21 Programming in Java 4.0
- CISP 31 Programming in C++ 4.0
- CISP 41 Programming in C# 4.0
- CISP 24 Advanced Java Programming 4.0
- CISP 34 Advanced C++ Programming 4.0
- CISP 44 Advanced Programming in C# 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:
- CISS 27 Defending Computer Systems 1.0
- CISS 25 Network Security and Firewalls 4.0
- CISS 23 Network Analysis and NIDS 4.0
- CISS 21 Network Vulnerabilities 4.0
- CISS 20 Autoscan Pattern Database 4.0
- CISS 19 Ethical Hacker 4.0
- CISS 18 Network Security and Systems Administration 4.0
- CISS 17 Network Security and Web Applications 4.0
- CISS 16 Network Security and Concepts and Practice 4.0

Total Units 13.0

CIS Professional Certificate in SQL Programming
Computer Information Systems Department
Certificate E0730
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 view and update databases, create and maintain database objects, and develop programs to automate database functions.

Requirements for the Certificate

Required courses:
- CISD 21 Database Management 4.0
- CISD 14 Advanced Database 4.0
- CISD 21 Database Management – Microsoft Access 4.0
- CISD 10 Principles of Object-Oriented Design 2.0
- CISP 21 Programming in Java 4.0
- CISP 31 Programming in C++ 4.0
- CISP 41 Programming in C# 4.0
- CISP 24 Advanced Java Programming 4.0
- CISP 34 Advanced C++ Programming 4.0
- CISP 44 Advanced Programming in C# 4.0

Total Units 11.0

CIS Professional Certificate in SOA and Web Services
Computer Information Systems Department
Certificate E0724
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 help the student understand the concepts and theories underlying service oriented architecture (SOA), XML technologies (DTD, XSD, XLLT, XQuery and XPath), and Web services technologies (UDDI, WSDL and SOAP).

Requirements for the Certificate

Required courses:
- CISS 41 XML Secure Programming 3.0
- CISS 49 Service Oriented Architecture 3.0
- CISS 47 Concepts & Practice 3.0

Total Units 6.0

CIS Professional Certificate in LINUX Programming
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 help the student understand the concepts and theories underlying service oriented architecture (SOA), XML technologies (DTD, XSD, XLLT, XQuery and XPath), and Web services technologies (UDDI, WSDL and SOAP).

Requirements for the Certificate

Required courses:
- CISS 27 Defending Computer Systems 1.0
- CISS 25 Network Security and Firewalls 4.0
- CISS 23 Network Analysis and NIDS 4.0
- CISS 21 Network Vulnerabilities 4.0
- CISS 20 Autoscan Pattern Database 4.0
- CISS 19 Ethical Hacker 4.0
- CISS 18 Network Security and Systems Administration 4.0
- CISS 17 Network Security and Web Applications 4.0
- CISS 16 Network Security and Concepts and Practice 4.0

Total Units 13.0
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 provide a basic understanding of Object-Oriented Design.
Requirements for the Certificate
Required courses:
- CISD 21 Database Management 4.0
- CISD 31 Database Management - Oracle 4.0
- CISP 31 Programming in C++ 4.0 CSU,UC
- CISP 34 Advanced C++ Programming 4.0 CSU,UC
Total Units 14.0

CIS Professional Certificate in Networking
Computer Information Systems Department Certificate E0716
This curriculum is designed to help students develop skills to administer and manage the heterogeneous corporate network. The courses examine and illustrate communication protocols with various industrial leading network operating systems. The main objective of the certificate is to integrate and enhance knowledge for network administration. However, individual courses may assist students in preparing for related certification exams.
Requirements for the Certificate
Required courses:
- CISD 21 Database Management 4.0
- CISD 31 Database Management - Oracle 4.0
- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 31 Programming in C++ 4.0 CSU,UC
- CISP 34 Advanced C++ Programming 4.0 CSU,UC
Total Units 14.0

CIS Professional Certificate in Java Programming
Computer Information Systems Department Certificate E0700
This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop applications using Java and includes techniques in Object Oriented Programming, web-based applets, servlets, navigating databases, and JavaBeans.
Requirements for the Certificate
Required courses:
- CISD 11 Database Management 4.0
- CISD 21 Database Management 4.0
- CISP 10 Principles of Object-Oriented Design 2.0
- CISP 21 Programming in Java 4.0 CSU,UC
- CISP 24 Advanced Java Programming 4.0
Total Units 14.0

CIS Professional Certificate in 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 31 Database Management 4.0
- CISD 32 Oracle Forms and Reports 4.0
- CISD 40 Database Design 3.0
Total Units 11.0

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. 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:
- CISD 21 Database Management 4.0
- CISD 32 Oracle Forms and Reports 4.0
- CISD 40 Database Design 3.0
Total Units 11.0

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 21 Web Servers 4.0
- CISW 31 Web Programming 4.0 CSU,UC
Total Units 12.0

Coaching
Physical Education Department Certificate E0804
This certificate program is intended to prepare students for employment as high school (walk-on) coaches, but is appropriate for coaches at various levels.
Requirements for the Certificate
Required courses:
- PE 13 Sports Officiating 3.0 CSU,UC
- PE 34 Fitness for Living 3.0 CSU,UC
- PE 44 Theory of Coaching 3.0 CSU
- PE 81 Work Experience for Coaching 2.0
Total Units 11.0
Exit Requirement: First Aid and CPR Certification
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
Select six (6) units from:
HRM 61 Menu Planning 3.0 CSU
HRM 62 Catering 3.0 CSU
NF 61 Creative Foods 3.0
NF 62 Meal Management 3.0 CSU

Total Units 14.5

Educational Paraprofessional - Level I
Psychology and Education Department Certificate E2187
This certificate program in the field of Education prepares paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning and development. Students will be able to assist classroom teachers in working with children of all ages and backgrounds. These classes assist students to prepare to pass the CBEST, as well.

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

Total Units 13.0

Electronic Assembly and Fabrication
Electronics and Computer Technology Department Certificate E0929
The Electronic Assembly and Fabrication Certificate is intended to prepare students to enter the electronics field as assembly and fabrication technicians. The program 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 50E Electronic Circuits (DC) 4.0 CSU
ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
ELEC 62 Advanced Surface Mount Assembly and Rework 2.0

Total Units 10.0

Electronics 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 3.0 CSU
ELEC 50A Electronic Circuits (DC) 4.0 CSU
ELEC 61 Electronic Assembly and Fabrication 2.0 CSU
ELEC 62 Advanced Surface Mount Assembly and Rework 2.0

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.

Application Requirements and Selection Procedures
Application Requirements:
a) Applicant must be 18 years of age upon entrance into the course.
b) High school graduate or equivalent.
c) File a College application and be accepted as a student at Mt. San Antonio College.
d) A physical examination, proof of certain immunizations, current certification in CPR, and a criminal background check are required of all students prior to entrance into the clinical setting. Forms and information will be provided upon 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 nursing program, students are encouraged to be able to speak, write and read English to complete classes successfully and to ensure safety for themselves and for others.

**Fashion Design - Computer-Aided**

**Consumer Science and Design Technologies**

Certificate E1329

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 20</td>
<td>Illustration for Fashion and Costume Design</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 21</td>
<td>Patternmaking I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 24</td>
<td>Fashion Patternmaking by Computer</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 25</td>
<td>Fashion Computer-Assisted Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 26</td>
<td>Fashion Computer Assisted Design</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>14.0</strong></td>
</tr>
</tbody>
</table>

**Fashion Merchandising - Level I**

**Consumer Science and Design Technologies**

Certificate E1388

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 8</td>
<td>Introduction to Fashion</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction I</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 15</td>
<td>Fashion Strategies</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FASH 17</td>
<td>Textiles</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>FASH 30</td>
<td>Fashion Design and Product Development I</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>15.0</strong></td>
</tr>
</tbody>
</table>

**Fire Management**

**Fire Technology Department**

Certificate E2131

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 7</td>
<td>Fire Fighting Tactics and Strategy</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 8</td>
<td>Fire Company Organization and Management</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 10</td>
<td>Arson and Fire Investigation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 20</td>
<td>Fire Instructor 1A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 21</td>
<td>Fire Instructor 1B</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 30</td>
<td>Fire Management I</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 50</td>
<td>Fire Command 1A</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>17.0</strong></td>
</tr>
</tbody>
</table>

**Fitness Specialist/Personal Trainer**

**Physical Education Department**

Certificate E080B

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NF 10</td>
<td>Nutrition for Personal Health and Wellness</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>17.0</strong></td>
</tr>
</tbody>
</table>

Recommended Electives:
- DNCE 39A Alignment and Correctives I

**Gallery Design/Operation and Art Profession**

**Fine Arts**

Certificate E1020

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

**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTG 20</td>
<td>Art, Artists and Society</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ARTG 21A</td>
<td>Introduction to Exhibition Production</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ARTG 21B</td>
<td>Intermediate Exhibition Production</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>ARTG 22A</td>
<td>Exhibition Design</td>
<td>1.0</td>
</tr>
<tr>
<td>ARTG 22B</td>
<td>Art Gallery Operation Work Experience</td>
<td></td>
</tr>
<tr>
<td><strong>PLUS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one (1) course from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMP 60</td>
<td>Desktop Publishing</td>
<td>4.0 CSU</td>
</tr>
<tr>
<td>COMP 62</td>
<td>Desktop Publishing</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>PLUS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one (1) course from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHIS 5</td>
<td>History of Western Art:</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td>AHIS 6</td>
<td>History of Modern Art:</td>
<td>3.0 CSU, UC</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>17.0</strong></td>
</tr>
</tbody>
</table>

Section 7 59
### Programs of Study Leading to a Certificate

#### 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 91 Work Experience 1.0 CSU
- HRM 52 Food Safety and Sanitation 1.5 CSU
- HRM 51 Introduction to Hospitality 3.0 CSU

**Certificate prepares the holder for an entry-level position in the hospitality industry.**

#### Hospitality: Management - Level I
Consumer Science and Design Technologies
Certificate E1332

The 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 CSU
- HRM 53 Dining Room Service 3.0 CSU
- HRM 70 Introduction to Lodging 3.0 CSU
- HRM 91 Work Experience 1.0 CSU

**Certificate prepares the holder for an entry-level position within the hospitality industry.**

#### 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 CSU
- HRM 52 Food Safety and Sanitation 1.5 CSU
- HRM 53 Dining Room Service 3.0 CSU
- HRM 91 Work Experience 1.0 CSU

**Certificate prepares the holder for an entry-level position within a restaurant.**

#### Information and Operating Systems Security
Computer Information Systems Department
Certificate E0731

This certificate will provide the fundamental knowledge needed to analyze the risk to one's network and systems and the steps necessary in order to select and deploy the appropriate countermeasures to reduce the computer's exposure to network threats.

**Requirements for the Certificate**

**Required courses:**
- CISS 11 Principles of Information Security 4.0 CSU
- CISS 13 Computer Security 4.0 CSU

**Certificate prepares the holder for an entry-level position within the information security field.**

#### Introduction to Computer Information Technology
Computer Information Systems Department
Certificate E0712

This program is designed as a foundational introduction to the computer and informational technology environment. This program will introduce the student to computer concepts, microcomputer applications, web/computer programming, and the Internet.

**Requirements for the Certificate**

**Required courses:**
- CSCI 11 Introduction to Computer Information Systems 3.5 CSU, UC
- CSCI 15 Microcomputer Applications 4.0 CSU, UC
- CSCI 11 Introduction to Internet Technologies 4.0 CSU

**Certificate prepares the holder for an entry-level position within the computer information technology field.**

#### LVN 30-Unit Option - Career Mobility Track
Nursing Department
Certificate E1202

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:**
- 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 Integration/Regulation 4.0 CSU
- PSYC 1A must be completed prior to entrance into NURS 5, Psychiatric Nursing.

**Certificate prepares the holder for an entry-level position within the nursing field.**

#### LVN 30-Unit Option - Career Mobility Track
Nursing Department
Certificate E1202

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:**
- 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 Integration/Regulation 4.0 CSU
- PSYC 1A must be completed prior to entrance into NURS 5, Psychiatric Nursing.

**Certificate prepares the holder for an entry-level position within the nursing field.**

#### LVN 30-Unit Option - Career Mobility Track
Nursing Department
Certificate E1202

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:**
- 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 Integration/Regulation 4.0 CSU
- PSYC 1A must be completed prior to entrance into NURS 5, Psychiatric Nursing.

**Certificate prepares the holder for an entry-level position within the nursing field.**

### 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 coursework completed.
- If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus.
Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (students may be able to obtain a list of agencies from the Admissions Office).

Due to specific college deadlines for International Student applications, please inform the Counselor/Educational Advisor that this applies to you.

c) All students will need to bring official proof of high 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.

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 of life issues
- Exposure to products containing latex

English Language Skills:

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

**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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 10</td>
<td>3.0</td>
</tr>
<tr>
<td>MFG 11</td>
<td>2.0</td>
</tr>
<tr>
<td>MFG 12</td>
<td>2.0</td>
</tr>
<tr>
<td>MFG 85</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>11.0</strong></td>
</tr>
</tbody>
</table>

**Certification E0927**

This certificate provides a strong background in MasterCAM 2-D, 3-D, and Solids packages along with the necessary machine shop theory and practice to input sound functional data into the CAD/CAM system.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 11</td>
<td>2.0</td>
</tr>
<tr>
<td>MFG 38</td>
<td>2.0</td>
</tr>
<tr>
<td>MFG 85</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>8.0</strong></td>
</tr>
</tbody>
</table>

**MasterCAM Aircraft Maintenance Technician & Manufacturing Technology**

**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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 52</td>
<td>1.5</td>
</tr>
<tr>
<td>MFG 20</td>
<td>3.0</td>
</tr>
<tr>
<td>MFG 25</td>
<td>3.0</td>
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<tr>
<td>MFG 25H</td>
<td>3.0</td>
</tr>
<tr>
<td>MFG 10</td>
<td>3.0</td>
</tr>
<tr>
<td>MFG 28</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>10.5</strong></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 52</td>
<td>1.5</td>
</tr>
<tr>
<td>MFG 20</td>
<td>3.0</td>
</tr>
<tr>
<td>MFG 25</td>
<td>3.0</td>
</tr>
<tr>
<td>MFG 25H</td>
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<tr>
<td>MFG 10</td>
<td>3.0</td>
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<tr>
<td>MFG 28</td>
<td>3.0</td>
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<tr>
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**Requirements for the Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 11</td>
<td>2.0</td>
</tr>
<tr>
<td>MFG 38</td>
<td>2.0</td>
</tr>
<tr>
<td>MFG 85</td>
<td>2.0</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>8.0</strong></td>
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**Nutrition Program Assistant - Level II: Weight Management Program Emphasis**

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### Programs of Study Leading to a Certificate

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<tr>
<th>Program</th>
<th>Description</th>
<th>Certificate E0923</th>
<th>Certificate E0925</th>
<th>Certificate E0919</th>
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<tbody>
<tr>
<td><strong>Parametric Solid Modeling</strong></td>
<td>With the strong relationship between AutoCAD and Manufacturing, this mini certificate glides the student through AutoDesk's 2-D, 3-D, Mechanical Desktop, and Inventor packages and relates them to real-life industrial usage.</td>
<td><strong>Required courses:</strong>&lt;br&gt;MFG 15 AutoCAD 2D 2.0&lt;br&gt;MFG 17 3-D CAD - Mechanical Modeling 2.0&lt;br&gt;MFG 19 Parametric Solid Modeling for Manufacturing 2.0&lt;br&gt;MFG 25 Advanced Parametric Solid Modeling for Manufacturing 2.0&lt;br&gt;MFG 27 Autodesk Inventor 2.0&lt;br&gt;Total Units 10.0</td>
<td><strong>Required courses:</strong>&lt;br&gt;MFG 11 Manufacturing Processes I 2.0 CSU&lt;br&gt;MFG 39 SurfCAM I 2.0 CSU&lt;br&gt;MFG 39B SurfCAM II 2.0 CSU&lt;br&gt;MFG 65 Manual Computerized Numerical Control (CNC) Programming 2.0 CSU&lt;br&gt;Total Units 8.0</td>
<td><strong>Required courses:</strong>&lt;br&gt;WELD 40 Introduction to Welding 2.0 CSU&lt;br&gt;WELD 70A Beginning Arc Welding 3.0&lt;br&gt;WELD 70B Intermediate Arc Welding 3.0&lt;br&gt;Total Units 8.0&lt;br&gt;Note: Any higher level welding courses may be substituted for WELD 70A.</td>
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<td><strong>SurfCAM</strong></td>
<td>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.</td>
<td><strong>Required courses:</strong>&lt;br&gt;MFG 11 Manufacturing Processes I 2.0 CSU&lt;br&gt;MFG 39 SurfCAM I 2.0 CSU&lt;br&gt;MFG 65 Manual Computerized Numerical Control (CNC) Programming 2.0 CSU&lt;br&gt;Total Units 8.0</td>
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<td><strong>Recommended Electives:</strong>&lt;br&gt;MFG 70 Technical Mathematics - Manufacturing Applications&lt;br&gt;WELD 60 Print Reading and Computations for Welders&lt;br&gt;WELD 70C Certification for Welders</td>
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SECTION EIGHT

Programs of Study
Leading to an
Associate 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.

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 & 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.

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 course work 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.

NOTE: All courses used for the A.A. degree majors may be doubled counted toward the Mt. San Antonio College General Education requirements.

NOTE: All students must file a petition for graduation with the Admissions & Records Office and have on file all required documents and transcripts.

GRADUATION REQUIREMENTS 2010-2011

The following requirements apply to both Associate in Science (A.S.) and Associate in Arts (A.A.) degrees:

Unit Requirement: Sixty (60) degree-appropriate units. A letter grade of “C” or better is required for each course required for graduation.

General Education Requirements: At least 24 units are required which shall include courses in each of the General Education areas, A through E (see pages 66-67). All courses must be completed with a grade of “C” or better.

Physical Well-Being Requirement: Complete at least one of the physical education activity courses with the following prefixes: DNCE, PE-A, PE-F, PE-I, PE-L, PE-S, PE-X with a grade of “C” or better or “CR”.

Reading Competency: This requirement is met by completing one of the following with a grade of “C” or better:

1. Math 71 Intermediate Algebra, or
   Math 71X Practical Intermediate Algebra
   or
   Math 71B Intermediate Algebra - Second Half
2. Obtaining a satisfactory score on the Intermediate Algebra Competency Examination.

GPA Requirement: A Mt. San Antonio College “degree” total grade point average, and “all college” total grade point average of 2.0.

Residency Requirement: The residency requirement for Mt. San Antonio College can be met in either of two ways:

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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)

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Adapted from CSU Executive Order 595 and Title 5 Section 40405.1
**Programs Leading to an Associate degree**

### GENERAL EDUCATION REQUIREMENTS FOR 2010-2011

**AREA A:**

**Communication in the English Language (6 units):**
- Select two (2) courses from the following:
  - ENGL 1A: Freshman Composition, or
  - ENGL 1AH: Freshman Composition – Honors, and
  - SPCH 1A: Public Speaking, or
  - SPCH 1AH: Public Speaking – Honors, or
  - SPCH 2: Fundamentals of Communication

**PHYS 24G** General Physics
**PHYS 2BG** 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: Biological Anthropology 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 5: 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 22: Principles of Microbiology
- BIOL 22L: Principles of Microbiology Laboratory
- PSYC 1B: Biopsychological Processing

**PHYSICS LABORATORY**
- PHSC 7L: Physical Science Laboratory
- PHSC 7L: Physical Science Laboratory
- PHYS 1: Physics

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

### AREA B:

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

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<thead>
<tr>
<th>PHYSICAL SCIENCES</th>
<th>ARC 5</th>
<th>Introduction to Astronomy</th>
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<tbody>
<tr>
<td>ASTR 7</td>
<td>Geology of the Solar System</td>
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<tr>
<td>ASTR 8</td>
<td>Introduction to Stars, Galaxies, and the Universe</td>
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<tr>
<td>CHEM 10</td>
<td>Chemistry for Allied Health Majors</td>
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<tr>
<td>CHEM 20</td>
<td>Introductory Organic and Biochemistry</td>
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<td>CHEM 40</td>
<td>Introduction to General Chemistry</td>
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<td>General Chemistry I</td>
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### 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:

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<th>Understanding the Visual Arts, or</th>
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<td>AHIS 5</td>
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<td>ARTD 15A</td>
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<td>ARTD 20</td>
<td>Design: Two-Dimensional</td>
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<td>ARTD 25A</td>
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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.*

**GENERAL EDUCATION REQUIREMENTS FOR 2010-2011**

**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 1 | Elementary German |
**GERM 2 | Continuing Elementary German |
**GERM 3 | Intermediate German |
**HIST 1 | History of the U.S. |
**HIST 3 | History of World Civilization |
**HIST 3H | History of World Civilization – Honors |
**HIST 4 | History of World Civilization |
**HIST 4H | History of World Civilization – Honors |
**HIST 7 | History of the U.S. |
**HIST 7H | History of the U.S. – Honors |
**HIST 8 | History of the U.S. |
**HIST 8H | History of the U.S. – 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 – Beyond the Stereotypes |
**HIST 39 | California History |
**HIST 40 | History of the Mexican American |
**HUMA 1 | The Humanities |
**ITAL 1 | Italian Language |
**ITAL 2 | Continuing Elementary Italian |
**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 1 | Elementary Japanese |
**JAPN 2 | Continuing Elementary Japanese |
**JAPN 3 | Intermediate Japanese |
**JAPN 4 | Continuing Intermediate Japanese |
**JAPN 5 | Advanced Japanese |
**LATIN 1 | Elementary Latin |
**LATIN 2 | Continuing Elementary Latin |
**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 |
GENERAL EDUCATION REQUIREMENTS FOR 2010-2011 (continued)

LIT 11A World Literature
LIT 11B World Literature
LIT 14 Introduction to Modern Poetry
LIT 15 Introduction to Cinema
LIT 20 African American Literature
LIT 25 Contemporary Mexican American Literature
LIT 36 Introduction to Mythology
LIT 40 Children's Literature
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 13 Major World Religions
PHIL 13H Major World Religions – Honors
PHIL 20A History of Western Philosophy
PHIL 20B History of Western Philosophy
*POLI 5 Political Theory – Ancient to Modern
*POLI 7 Political Theory – Early Modern to Contemporary
SIGN 101 American Sign Language 1
SIGN 102 American Sign Language 2
SIGN 103 American Sign Language 3
SIGN 104 American Sign Language 4
SIGN 202 American Deaf Culture
SPAN 1 Elementary Spanish
SPAN 1A Continuing Elementary Spanish
SPAN 3 Intermediate Spanish
SPAN 4 Continuing Intermediate Spanish
SPAN 5 Advanced Spanish
SPAN 6 Continuing Advanced Spanish
SPAN 11 Spanish for the Spanish Speaking
SPAN 12 Continuing Spanish for the Spanish Speaking
SPAN 25 Spanish Literature

AREA D:
Social, Political and Economic Institutions (6 units): U.S. History and American Institutions

Select one [1] course from the following:

*HIST 1 History of the U.S.
*HIST 7 History of the U.S.
*HIST 7H History of the U.S. – Honors
*HIST 8 History of the U.S.
*HIST 8H History of the U.S. – Honors
*HIST 30 History of the African American
*HIST 31 History of the African American

*HIST 36 Women in American History – Beyond the Stereotypes
*HIST 40 History of the Mexican American
POLI 1 Political Science
POLI 1H Political Science – Honors
POLI 25 Politics of the Mexican American
POLI 35 African American Politics

Elective Courses – select at least one [1] course from the following list (3 units):

AGAG 1 Food Production, Land Use and Politics – A Global Perspective
AGRI 20 Conservation of Natural Resources
ANTH 3 Archaeology
ANTH 5 Principles of Cultural Anthropology
ANTH 22 General Cultural Anthropology
ANTH 30 The Native American
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 3 World Regional Geography
GEOG 8 The Urban World
GEOG 30 Geography of California
*HIST 3 History of World Civilization
*HIST 3H History of World Civilization – Honors
*HIST 4 History of World Civilization
*HIST 4H History of World Civilization – 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 Media Images
POLI 2 Political Science
POLI 5 Political Theory – Ancient to Modern
POLI 7 Political Theory – Early Modern to Contemporary

*PSYC 1A Introduction to Psychology
*PSYC 1AH Introduction to Psychology – Honors
*PSYC 14 Developmental Psychology
*PSYC 19 Abnormal Psychology
*PSYC 25 The Psychology of Women
SOC 1 Sociology
SOC 1H Sociology – Honors
SOC 2 Sociology
SOC 2H Sociology – Honors
SOC 4 Introduction to Gerontology
SOC 5 Introduction to Criminology
SOC 5H Introduction to Criminology – Honors
SOC 14 Marriage and the Family
SOC 15 Child Development
SOC 20 Sociology of Ethnic Relations
SOC 20H Sociology of Ethnic Relations – Honors
SPCH 7 Interpersonal Communication
SPCH 7H Interpersonal Communication – Honors
*SPCH 26 Interpersonal Communication
*SPCH 26H Interpersonal Communication – Honors

AREA E:
Lifelong Understanding and Self-Development (3 units): Select one [1] course from the following:

AD 3 Chemical Dependency: Intervention, Treatment and Recovery

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

Mt. San Antonio College offers two year occupational degrees in the following section of this Catalog. To qualify for the degree, students must complete the required courses for the major as shown, plus additional general education courses as listed on pages 66-67. For further information, please consult with Counseling and Advising Services on the upper level of the Student Services Center.

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Accounting
Accounting and Management Department
Major S0502
Students preparing to become professional accountants should follow the Business Administration course for a four-year college or university. The following is semi-professional training for those who seek employment in bookkeeping or accounting positions at the end of two years.

**Requirements for the Major**

**Required courses:**
- BUSA 7: Principles of Accounting 5.0 CSU,UC - Financial
- BUSA 8: Principles of Accounting 5.0 CSU,UC - Managerial
- BUSA 21: Cost Accounting 4.0
- BUSA 52: Intermediate Accounting 3.0
- BUSA 53: Ten-Key Calculations 2.0
- BUSA 81: Work Experience in Accounting 1.0
- BUSA 58: Federal Income Tax Law 3.0
- BUSA 70: Payroll and Tax Accounting 3.0
- BUSA 75: Using Microcomputers in Financial Accounting 1.0
- BUSA 81: Work Experience in Accounting 1.0
- BUSA 76: Using Microcomputers in Managerial Accounting 1.0
- BUSM 20: Principles of Business 3.0 CSU,UC
- BUSO 25: Business Communications 3.0 CSU
- BUSO 26: Oral Communications for Business
- CSB 15: Microcomputer Applications 4.0 CSU,UC
- CSB 31: Microsoft Word 3.0
- CSB 51: Microsoft PowerPoint 3.0 CSU
- CIS 12: Intermediate Computer Keyboarding
- CIS 41: Office Management Skills 3.0

**PLUS**

Select one (1) course from:
- CSB 61: Desktop Publishing Software 3.0
- CSI 21: Data Entry 3.0
- CSW 15: Web Site Development 4.0 CSU

**Total Units 28.0-29.0**

Advertising Design and Illustration
Commercial and Entertainment Arts
Major S1003
This program is designed to provide students with a combination of critical thinking skills, problem solving capacities, and the technical expertise necessary for entry level employment as a Graphic Designer or Illustrator in Advertising and related Visual Communication industries. Students completing the course are eligible for advanced training or for transfer to a college or university for further study.

**Requirements for the Major**

**Required courses:**
- ARTC 60: Graphic Design 3.0 CSU,UC
- ARTC 66: Lettering and Typography 3.0
- ARTC 70: Computer Graphics: Introduction 3.0 CSU
- ARTC 165: Illustration 3.0 CSU
- ARTD 15A: Drawing: Beginning 3.0 CSU,UC
- ARTD 17A: Drawing: Life 3.0 CSU,UC
- ARTD 20: Design: Two Dimensional 3.0 CSU,UC
- ARTD 25A: Painting: Beginning 3.0 CSU,UC

**Recommended Electives:**
- AHS 5: History of Western Art 3.0 CSU,UC
- AHS 5H: History of Western Art - Renaissance Through Modern
- AHS 6: History of Modern Art 3.0 CSU,UC
- AHS 6H: History of Modern Art - Honors 3.0 CSU,UC
- BUSO 25: Business Communications 3.0 CSU
- BUSO 26: Oral Communications for Business
- CSB 15: Microcomputer Applications 4.0 CSU,UC
- CSB 31: Microsoft Word 3.0
- CSB 51: Microsoft PowerPoint 3.0 CSU
- CIS 12: Intermediate Computer Keyboarding
- CIS 41: Office Management Skills 3.0

**Total Units 28.0-29.0**

Agri-Technology
Agricultural Sciences Department
Major S0101
The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The department offers a comprehensive Agricultural Sciences program and is unique in that most courses provide hands-on experiences designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which the courses are offered.

The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. Additional courses needed for completion of the Associate 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AGOR 15</td>
<td>Animal Science</td>
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<tr>
<td>AGOR 21</td>
<td>Horticultural Science</td>
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</tr>
<tr>
<td>AGOR 32</td>
<td>Landscaping and Nursery Management</td>
<td>3.0</td>
</tr>
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<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>

**PLUS**

Select one course from:
- AGFR 20: Conservation of Natural Resources 3.0 CSU,UC
- AGFL 14: Swine Production 3.0 CSU
- AGFL 16: Horse Production 4.0 CSU,UC
- AGOR 11: Sheep Production 3.0 CSU
- AGOR 13: Beef Production 3.0 CSU
- AGOR 24: Integrated Pest Management 3.0 CSU
- AGOR 62: Landscape Irrigation 3.0 CSU
- AGOF 70: Pet Shop Management 3.0
- AGOF 71: Canine Management 3.0

**Total Units 33.0 - 34.0**
Programs Leading to an Associate degree

Air Conditioning and Refrigeration

Air Conditioning, Water & Welding Technologies

Major S0909

This program is designed to prepare the student for employment in the broad field of air conditioning, heating and refrigeration and leads to occupations in design, manufacturing, operation, sales, distribution, installation, maintenance and repair. Students desiring a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

AIRC 10  Technical Mathematics  2.0
  in Air Conditioning and Refrigeration
AIRC 11  Welding for Air Conditioning  2.0
  and Refrigeration
AIRC 12  Air Conditioning Codes  3.0
  and Standards
AIRC 20  Refrigeration Fundamentals  3.0
AIRC 25  Electrical Fundamentals  4.0
  for Air Conditioning and Refrigeration
AIRC 26A  Heat Pump Fundamentals  1.5
AIRC 26B  Gas Heating Fundamentals  2.0
AIRC 30  Heat Load Calculations  3.0
AIRC 31  Commercial Electrical  4.0
  for Air Conditioning and Refrigeration
AIRC 32A  Air Properties and Measurement  1.5
AIRC 32B  Air Distribution Systems  1.5
AIRC 34  Advanced Mechanical Refrigeration
AIRC 37  Pneumatic Controls  2.0
AIRC 39  Building Automation Systems  4.0
Total Units 37.5

Airframe and Aircraft Powerplant Maintenance Technology

Airframe and Aircraft Powerplant Maintenance Technology-Evening

Aircraft Maintenance Tech & Manufacturing Dept.

Major S0901

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, 93B, and 93B. The evening program courses are offered in 9-week modules.

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

Requirements for the Major

Required courses:

AIRM 70A  Aircraft Maintenance Technology  3.0
  and Electronics
AIRM 70B  Aircraft Maintenance Technology  3.0
  and Electronics
AIRM 71  Aviation Maintenance Science  6.0
AIRM 72  Aviation Materials and Processes  1.5
AIRM 73  Aviation Welding  1.5
AIRM 90A  Airframe Maintenance Technology 3.0
AIRM 90B  Airframe Maintenance Technology 3.0
AIRM 91A  Airframe Maintenance Technology 3.0
AIRM 91B  Airframe Maintenance Technology 3.0
AIRM 92A  Airframe Maintenance Technology 3.0
AIRM 92B  Airframe Maintenance Technology 3.0
AIRM 93A  Airframe Maintenance Technology 3.0
AIRM 93B  Airframe Maintenance Technology 3.0
AIRM 95A  Aircraft Powerplant Maintenance Technology 3.0
AIRM 95B  Aircraft Powerplant Maintenance Technology 3.0
AIRM 96A  Aircraft Powerplant Maintenance Technology 3.0
AIRM 96B  Aircraft Powerplant Maintenance Technology 3.0
AIRM 97A  Aircraft Powerplant Maintenance Technology 3.0
AIRM 97B  Aircraft Powerplant Maintenance Technology 3.0
AIRM 98A  Aircraft Powerplant Maintenance Technology 3.0
AIRM 98B  Aircraft Powerplant Maintenance Technology 3.0
Total Units 63.0

Recommended Electives:

AIRM 74  Aircraft Maintenance Technology - Work Experience
AIRM 80  Lab Studies in Aircraft Maintenance Technology
AIRM 81  Lab Studies in Aircraft Maintenance Technology
EDT 12  Technical Engineering Drawing II
ELEC 90  Survey of Electronics
MFG 70  Technical Mathematics - Manufacturing Applications
PHYS 1  Physics

Airframe and Aircraft Powerplant Maintenance Technology-Day

Aircraft Maintenance Tech & Manufacturing Dept.

Major S0911

This program prepares students to enter employment as a certified airframe and powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various 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, 93B, and 93B. The evening program courses are offered in 9-week modules.

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

Requirements for the Major

Required courses:

AIRM 65A  Aircraft Powerplant Maintenance Technology 13.0
AIRM 65B  Aircraft Powerplant Maintenance Technology 13.0
AIRM 66A  Airframe Maintenance Technology 13.0
AIRM 66B  Airframe Maintenance Technology 13.0
AIRM 70A  Aircraft Maintenance Technology - Work Experience
AIRM 70B  Aircraft Maintenance Technology - Work Experience
AIRM 71  Aviation Maintenance Science 6.0
AIRM 72  Aviation Materials and Processes 1.5
AIRM 73  Aviation Welding 1.5
AIRM 90A  Airframe Maintenance Technology 3.0
AIRM 90B  Airframe Maintenance Technology 3.0
AIRM 91A  Airframe Maintenance Technology 3.0
AIRM 91B  Airframe Maintenance Technology 3.0
AIRM 92A  Airframe Maintenance Technology 3.0
AIRM 92B  Airframe Maintenance Technology 3.0
AIRM 93A  Airframe Maintenance Technology 3.0
AIRM 93B  Airframe Maintenance Technology 3.0
AIRM 95A  Aircraft Powerplant Maintenance Technology 3.0
AIRM 95B  Aircraft Powerplant Maintenance Technology 3.0
AIRM 96A  Aircraft Powerplant Maintenance Technology 3.0
AIRM 96B  Aircraft Powerplant Maintenance Technology 3.0
Total Units 67.0

Recommended Electives:

AIRM 74  Aircraft Maintenance Technology - Work Experience
AIRM 80  Lab Studies in Aircraft Maintenance Technology
EDT 12  Technical Engineering Drawing II
ELEC 90  Survey of Electronics
MFG 70  Technical Mathematics - Manufacturing Applications
PHYS 1  Physics
## 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-dependant settings.

### Requirements for the Major

#### Required core courses:

- **AD 1** Alcohol/Drug Dependency 3.0 CSU
- **AD 2** Physiological Effects 3.0 CSU
- **AD 3** Chemical Dependency: Intervention, Treatment and Recovery 3.0 CSU
- **AD 4** Issues in Domestic Violence 3.0
- **AD 5** Chemical Dependency: Prevention and Education 1.5 CSU
- **AD 6** Dual Diagnosis 3.0 CSU
- **AD 8** Group Process and Leadership 3.0
- **AD 9** Family Counseling 3.0
- **AD 10** Client Record and Documentation 1.5
- **AD 11** Techniques of Intervention and Referral 3.0

#### Required field work courses:

- **AD 13** Internship/Seminar 3.5 CSU
- **AD 14** Advanced Internship/Seminar 3.5 CSU

**PLUS Select six (6) units from:**

- **CHILD 10** Child Growth and Development - Honors 3.0 CSU, UC
- **CHILD 10H** Child Growth and Development - Honors 3.0 CSU, UC
- **PSYC 1A** Introduction to Psychology 3.0 CSU, UC
- **PSYC 1AH** Introduction to Psychology - Honors 3.0 CSU, UC
- **PSYC 19** Abnormal Psychology 3.0 CSU
- **SOC 1** Sociology 3.0 CSU
- **SOC 1H** Sociology - Honors 3.0 CSU, UC
- **SOC 14** Marriage and the Family 3.0 CSU, UC
- **SOC 15** Child Development 3.0 CSU, UC

**Total Units 40.0**

### 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:

- Restricted Electives must be taken prior to enrollment in Field Experience
- Refer to Schedule of Credit Classes for sequence of courses
- For questions, call the division office at (909) 594-5611, 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 hazardous 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
- Exposure to a highly charged emotional environment which can be stressful

#### 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 write, speak and read English to complete classes successfully and to ensure safety for themselves and for others.

### Animation

#### Commercial and Entertainment Arts

**Major S1006**

The Animation Program offers an integrated/interdisciplinary approach to prepare students to meet current and future job market demands. The student will be given a balanced blend of art and technology-based skills which are essential for today’s careers in animation. The program offers both an A.S. degree and certificates. Course content is driven by industry needs in order to provide the student with the best possible preparation for a career in animation or for transfer to an institution of higher learning.

### Requirements for the Major

**Required courses:**

- **ANIM 101** Drawing - Gesture and Figure 3.0 CSU
- **ANIM 104** Drawing Fundamentals or 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 130** Introduction to 3-D Computer Animation 3.0
- **ARTC 66** Portfolio 3.0
- **ARTC 70** Computer Graphics: Introduction 3.0 CSU
- **ARTD 20** Design: Two Dimensional 3.0 CSU, UC
- **ARTS 22** Design: Three-Dimensional 3.0 CSU, UC

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

- **ANIM 109** Advanced Principles of Animation 3.0
- **ANIM 117** Animation Background Layout 3.0 CSU
- **ANIM 120** Script Development for Animation 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 36.0**

**Recommended Electives:**

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

### Programs Leading to an Associate degree

**ANIM 111** Animal Drawing 3.0
**ANIM 121** History of Animation 3.0
**ANIM 131** Introduction to Animation 3.0
**ANIM 134** Dynamic Digital Environments 3.0
**ANIM 135** Visual Effects II: Particle Systems 3.0
**ANIM 148** Demo-Reel 3.0

### 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 workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and trouble-shooting of experimental designs and outcomes.

**Requirements for the Major**

**Required courses:**

- **BUSM 10** Principles of Continuous Quality Improvement 3.0
- **CHEM 20** Introductory Organic and Biochemistry 5.0 CSU, UC
- **CHEM 50** General Chemistry I 5.0 CSU, UC
- **CHEM 51** General Chemistry II 5.0 CSU, UC
- **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 3.0

**PLUS Select six (6) units from:**

- **MICR 22** Microbiology 4.0 CSU, UC
- **PHIL 12** Ethics 3.0 CSU, UC
- **PHIL 12H** Ethics - Honors 3.0 CSU, UC
- **SPCH 26** Interpersonal Communication 3.0 CSU, UC
- **SPCH 26H** Interpersonal Communication - Honors 3.0 CSU, UC

**Total Units 35-36**
### Programs Leading to an Associate Degree

#### 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:**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ARCH 10</td>
<td>Design I - Elements of Design</td>
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<td>CSU</td>
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<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
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<td>ARCH 12</td>
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<td>CSU</td>
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<td>ARCH 13</td>
<td>Architectural Illustration</td>
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<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>CSU, UC</td>
</tr>
<tr>
<td>ARCH 21</td>
<td>Design II - Architectural Design</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ARCH 23</td>
<td>Architectural Presentations</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>ARCH 27</td>
<td>Design III - Environmental Design</td>
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</tr>
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<td>ARCH 29</td>
<td>Design IV - Advanced Project</td>
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<td>ARCH 31</td>
<td>World Architecture I</td>
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<td>CSU</td>
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<tr>
<td>ARCH 32</td>
<td>World Architecture II</td>
<td>3.0</td>
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**PLUS**

**Select one (1) course from:**

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<th>Units</th>
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</thead>
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<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings - I</td>
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<tr>
<td>ARCH 18</td>
<td>Architectural Computer Aided Design Elements</td>
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</table>

#### Architectural Technology - Technology Concentration

**Architecture and Engineering Design Department**

**Major S0201**

This program prepares students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to 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 certificate program is also available.

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 10</td>
<td>Design I - Elements of Design</td>
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<td>CSU</td>
</tr>
<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
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<td>CSU, UC</td>
</tr>
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<td>ARCH 12</td>
<td>Architectural Materials</td>
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<td>ARCH 14</td>
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<td>CSU</td>
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<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings - I</td>
<td>3.0</td>
<td>CSU</td>
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<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
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<td>CSU, UC</td>
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<td>ARCH 18</td>
<td>Architectural Computer Aided Design Elements</td>
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<td>CSU</td>
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<tr>
<td>ARCH 26</td>
<td>Architectural CAD Working Drawings</td>
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**PLUS**

**Select one (1) course from:**

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<td>ARCH 26</td>
<td>Architectural CAD Working Drawings</td>
<td>3.0</td>
<td>CSU</td>
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</tbody>
</table>

### Building Automation

**Air Conditioning, Welding and Water Technologies**

**Major S030B**

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 course.

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>Refrigeration Fundamentals</td>
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<td>AIRC25</td>
<td>Electrical Fundamentals for A/C &amp; Refrigeration</td>
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<td>AIRC31</td>
<td>Commercial Electrical for A/C &amp; Refrigeration</td>
<td>4.0</td>
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<td>AIRC34</td>
<td>Advanced Mechanical Refrigeration</td>
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<tr>
<td>AIRG61</td>
<td>Building Automation Fundamentals</td>
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<td>AIRG63</td>
<td>Building Control Networks</td>
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<td>Building Automation Network &amp; Programming</td>
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<td>AIRG67</td>
<td>Energy Management</td>
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<td>CSN11</td>
<td>Telecommunications/Networking</td>
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<tr>
<td>CWS441</td>
<td>Service Oriented Architecture Concepts &amp; Practice</td>
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<tr>
<td>CWS449</td>
<td>XML Secure Programming</td>
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**Total Units**

<table>
<thead>
<tr>
<th>Total Units</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>37.5</td>
<td></td>
</tr>
</tbody>
</table>
### Business: Management

**Accounting and Management Department**
**Major S0506**

This program is intended to prepare students for employment following graduation. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

#### Requirements for the Major

##### Required courses:
- BUSA 7 Principles of Accounting 5.0 CSU,UC - Financial
- BUSM 10 Principles of Continuous Quality Improvement 3.0
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 51 Principles of International Business 3.0
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSM 62 Human Resource Management 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSO 26 Oral Communications 3.0
- BUSO 26 Principles of Marketing 3.0 CSU for Business
- BUSO 15 Microcomputer Applications 4.0 CSU,UC
- BUSO 62 Retail Store Management and Merchandising 3.0
- BUSO 50 Retail Store Management and Merchandising 3.0

#### Total Units: 33.0

##### Recommended Electives:
- BUSA 71 Computer Information Systems 3.5 CSU,UC
- FASH 62 Retail Store Management 3.0 CSU
- BUSO 27 Business Communications 3.0 CSU
- BUSO 25 Business Communications 3.0
- BUSM 62 Human Resource Management 3.0

### Child Development

**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 credits 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

##### 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 101 Child Growth and Development - Honors 3.0 CSU,UC
- CHLD 64 Health, Safety and Nutrition of Young Children 3.0 CSU
- CHLD 66 Early Childhood Development Observation 2.0 CSU
- CHLD 66 Early Childhood Development Observation Laboratory 1.0 CSU
- CHLD 67 Early Childhood Development Participation 2.0 CSU
- CHLD 67 Principles of Marketing 3.0 CSU for Business
- CHLD 68 Children With Special Needs 3.0 CSU
- CHLD 69 Early Childhood Development Field Work Seminar 2.0 CSU

#### Total Units: 33.0

##### Recommended Electives:
- CHLD 71A Administration of Child Development Programs 3.0
- CHLD 71B Management/Marketing/Personnel for ECD Programs 3.0
- CHLD 72 Teacher, Parent, and Child Relationships 3.0
- CHLD 73 Infant/Toddler Care and Development 3.0

### Commercial Flight

**Aeronautics, Transportation and Travel Department**
**Major S0512**

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.

#### Required courses:
- AERO 23 Primary Pilot Ground School 4.0 CSU
- AERO 24 Navigation 3.0 CSU
- AERO 25 Commercial Pilot Ground School 3.0 CSU
- AERO 26 Aviation Weather 3.0 CSU
- AERO 27 Aviation Safety 3.0 CSU
- AERO 28 Aircraft and Engines 3.0 CSU

#### Requirements for the Major

##### Required courses:
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSO 26 Oral Communications 3.0
- BUSO 25 Principles of Business 3.0
- BUSM 62 Human Resource Management 3.0
- BUSO 15 Microcomputer Applications 4.0 CSU,UC
- BUSO 62 Retail Store Management and Merchandising 3.0
- BUSO 50 Retail Store Management and Merchandising 3.0

#### Total Units: 28.0

##### Recommended Electives:
- CHLD 71A Administration of Child Development Programs 3.0
- CHLD 71B Management/Marketing/Personnel for ECD Programs 3.0
- CHLD 72 Teacher, Parent, and Child Relationships 3.0
- CHLD 73 Infant/Toddler Care and Development 3.0

### Computer - Database Management Systems

**Computer Information Systems Department**
**Major S0706**

This 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.

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.

#### Requirements for the Major

##### Required core courses:
- CISB 11 Computer Information Systems 3.5 CSU,UC
- CISB 15 Microcomputer Applications 4.0 CSU,UC
- CISM 11 Systems Analysis and Design 3.5 CSU,UC
- CISN 21 Windows Operating System 4.0 CSU

**Programs Leading to an Associate degree**

<table>
<thead>
<tr>
<th>Program</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 20</td>
<td>Federal Aviation Regulations 2.0 CSU</td>
</tr>
<tr>
<td>AERO 30</td>
<td>Instrument Ground School 3.0 CSU</td>
</tr>
<tr>
<td>TRAN 17</td>
<td>Air Transportation 3.0 CSU</td>
</tr>
</tbody>
</table>

**Total Units:** 27.0

#### Recommended Electives:
- AERO 40 Flight 3.0 CSU
- AERO 40 Flight Laboratory 3.0 CSU
- AERO 41 Basic Flight Simulator Laboratory 3.0 CSU
- AERO 58 Flight Instructor Ground School 3.0 CSU
- AERO 61 Aircraft Recognition and Performance 3.0 CSU
- AERO 21 Flight Operations 3.0 CSU
- AERO 22 Flight Operations Laboratory 3.0 CSU
- AERO 23 Commercial Pilot Ground School 3.0 CSU
- AERO 24 Navigation 3.0 CSU
- AERO 25 Commercial Pilot Ground School 3.0 CSU
- AERO 26 Aviation Weather 3.0 CSU
- AERO 27 Aviation Safety 3.0 CSU
- AERO 28 Aircraft and Engines 3.0 CSU
- BUSA 7 Principles of Accounting 5.0 CSU

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Programs Leading to an Associate degree

**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 4.0
- CISD 40 Database Design 3.0

**Oracle Concentration:**
- CISD 31 Database Management - Oracle 4.0
- CISD 32 Oracle Forms and reports 4.0
- CISD 40 Database Design 3.0

**Total Units: 29.0 – 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 or the catalog of the institution they wish to attend to address transferability of courses.

**Requirements for the Major**

**Required courses:**
- GRAP 10 Computer Graphics Lab 1.0
- GRAP 12 Advanced Photo Editing with Photoshop 3.0
- GRAP 16 Digital Image Design with Illustrator & Freehand 3.0
- GRAP 18 Advanced Image Design 3.0
- GRAP 20 Applying Photos and Images in Multimedia 3.0
- GRAP 28 Digital Portfolio 2.0
- PHOT 10 Beginning Photography 3.0 CSU,UC
- PHOT 17 Photocommunication 3.0

**Total Units: 27.0**

**Recommended Electives:**
- AHIS 1 Understanding the Visual Arts or
- ARTB 1 Understanding the Visual Arts
- COMP 10 Operating the Macintosh Computer
- GRAP 1 Laboratory Studies: Black and White Photography
- GRAP 2 Laboratory Studies: Color Photography
- GRAP 15 History of Photography
- GRAP 24 Work Experience in Computer Graphics
- PHOT 1 Laboratory Studies: Advanced Image Design
- PHOT 2 Laboratory Studies: Digital Cameras and Composition
- PHOT 4 Digital Cameras and Composition

**Computer and Networking Technology**

**Electronics and Computer Technology Department**

**Major S0725**

The Computer and Networking Technology major prepares students to enter the computer and networking fields as service technicians. The program provides foundations in basic electronics, computer servicing, operating systems, network/services, security and customer relations. The student will be prepared to perform installation, software configuration and the maintenance, operation, troubleshooting and repair of computers and their associated networking software/hardware. In addition, the program prepares students to take the A+, Network+, Server+ and Security+ certification tests offered at testing centers throughout the country. These certifications are CompTIA sponsored and are worldwide-recognized industry benchmarks for the computer and networking technician. Multi-level certificates are also available.

**Requirements for the Major**

**Required courses:**
- CNET 50 PC Servicing 4.0
- CNET 52 PC Operating Systems 4.0
- CNET 54 PC Troubleshooting 4.0
- CNET 56 Computer Networks 4.0
- CNET 60 A+ Certification Preparation 3.0
- CNET 62 Network+ Certification Preparation 3.0
- CNET 64 Server + Certification Preparation 3.0
- CNET 66 Security + Certification Preparation 3.0
- ELEC 11 Technical Applications in Microcomputers 3.0 CSU
- CISP 15 or Microcomputer Applications 4.0 CSU,UC
- ELEC 50A or Electronic Circuits (DC) 4.0 CSU
- ELEC 50B or Electronic Circuits (AC) 4.0 CSU
- ELEC 56 or Digital Electronics 4.0 CSU
- TECH 60 Customer Relations 1.0 for the Technician

**Total Units: 44.0 - 45.0**

**Recommended Electives:**
- ELEC 51 or Electronic Devices
- ELEC 74 or 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 corporate network with security emphasis. The courses test offered at testing centers throughout the country. These certifications are CompTIA sponsored and are worldwide-recognized industry benchmarks for the computer and networking technician. Multi-level certificates are also available.

**Requirements for the Major**

**Required courses:**
- CISP 10 Object-Oriented Design 2.0
- CISP 11 Telecommunications/Networking Fundamentals 4.0 CSU
- CISP 24 Microsoft NT Network System Administration 4.0 CSU
- CISP 31 Cisco CCNA Networking Fundamentals and Routing 4.0 CSU and Countermeasures
- CISP 33 Network Analysis and NIDS 4.0 CSU
- CISP 35 Network Security and Firewalls 4.0 CSU
- CISP 36 or Linux Operating System 4.0 CSU
- CISP 38 or UNIX Operating System 4.0 CSU
- CISP 40 or Security System Operating System 4.0 CSU
- CISP 42 or Database Management - Oracle 4.0 CSU

**Total Units: 27.5 - 28.0**

**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 programming and 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 or Computer Information Systems 3.5 CSU,UC
- CISP 15 or Microcomputer Applications 4.0 CSU
- CISP 17 or Systems Analysis and Design 3.5 CSU
- CISP 21 or Windows Operating System 4.0
- CISP 31 or Linux Operating System 4.0
- CISP 34 or UNIX Operating System 4.0
- CISP 18 or Object-Oriented Design 2.0
- BUSB 20 or Principles of Business 3.0
- BUSM 25 or Principles of E-Commerce 3.0
- BUSA 7 or Principles of Accounting - Financial 5.0
- CISP 11 or Database Management - Microsoft Access 4.0
- CISP 21 or Database Management - Microsoft SQL Server 4.0
- CISP 31 or Database Management - Oracle 4.0
Correctional Sciences

Public Services Department
Major S2103

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 Major

Required courses:
- ADJU 68 Administration of Justice Report Writing 3.0
- 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 in the Community/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 32.0 - 34.0

Construction Inspection

Architecture and Engineering Design Department
Major S0920

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

Requirements for the Major

Required courses:
- ARCH 12 Architectural Materials and Specifications 3.0 CSU
- ARCH 14 Building and Zoning Codes 3.0 CSU
- INSP 17 Legal Aspects of Construction 3.0 CSU
- INSP 70 Elements of Construction 3.0 CSU
- INSP 71 Construction Estimating 3.0 CSU
- INSP 87 Fundamentals of Construction Inspection 3.0 CSU

Total Units 18.0

Recommended Electives:
- ARCH 11 Architectural Drawing
- ARCH 15 Architectural Working Drawings - I
- INSP 67 Reading Construction Drawings

Electronics and Computer Engineering Technology

Electronics and Computer Technology Department
Major S0906

This program begins with basic electronic components and circuitry, culminates with coursework in electronic systems, and is characterized by advanced coursework in three major areas. These include microprocessors and interfacing, electronic communications, and industrial electronic controls.

Students completing the program will have training in all the major areas of electronics and will possess ample skills to make them versatile employees. Nearly all labs have new, state-of-the-art equipment to provide the student with quality hands-on learning experiences.

This program is intended to prepare students for employment in electronic industries or for transfer into electronic and computer engineering technology or industrial technology programs at various universities in the CSU system. Many of the courses directly articulate to courses offered at the CSUs. Typical technician job classifications this program covers include field service technician, field engineer, computer service technician, customer service technician, communications technician, maintenance technician and electronics technician.

Three certificate programs are also available; an 8-10 unit certificate in Electronics Assembly and Fabrication, a one-year certificate in Electronics Technology, and a two-year certificate with the same title as the A.S. degree. All students completing an Electronic A.S. degree program are automatically eligible to receive, without further examination, the N.A.R.T.E. 3rd Class Technician License; and all students completing certificate programs are automatically eligible to receive, without further examination, the N.A.R.T.E. 4th Class Technician License.

Programs Leading to an Associate degree

Section 8
**Programs Leading to an Associate degree**

**Emergency Medical Services**

**Medical Services Department**

**Major S1210**

Students who complete the required courses listed below for the Emergency Medical Technician-Paramedic (EMT-P) Certificate and who also complete the graduation requirements of Mt. San Antonio College will be awarded the Associate in Science degree in Emergency Medical Services.

This Paramedic Program is accredited by CAHHEP (Committee on Accreditation of Allied Health Education Programs) and approved by the Los Angeles County Department of Health Services as meeting and exceeding the minimum standards as specified in Title 22 of the California Code of Regulations and the federal Department of Transportation national standard curriculum. It is designed to train paramedics to work on ambulances and in the fire service.

**Requirements for the Major**

**Required courses:**
- EMS 1: Fundamentals for Paramedics 4.0
- EMS 10: Anatomy and Physiology for Paramedics 2.0
- EMS 20: Emergency Cardiac Care for Paramedics 1.0
- EMS 30: Pharmacology for Paramedics 2.0
- EMS 40: Cardiology for Paramedics 5.0
- EMS 50: Paramedic Skills Competency 5.0
- EMS 60: EMS Theory for Paramedics 8.5
- EMS 70: Paramedic Clinical Internship 4.0
- EMS 80: Paramedic Field Internship 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
- SOC 1: Sociology

The Emergency Medical Services faculty recommend that students complete their studies with selected elective courses chosen from the list above. Students should meet with a professor of Emergency Medical Services to help them determine which electives would best suit their career plans.

**Special Information**

To remain in the program, students must maintain a grade of “C” (80%) or better in all courses, per state regulations. Before starting clinical rotations, students must pass a criminal background check.

Upon successful completion of the required courses, students are granted a certificate documenting completion of the Paramedic Program. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

**Application Requirements and Entrance Procedures**

**Application Requirements:**

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

1. Be an EMT-I, currently certified in California.
2. Submit a letter on official stationery from a recognized EMS agency verifying completion of six (6) months of pre-hospital field experience as an EMT-I (approximately 1,200 hours) within the last two years.
3. File a college application and be accepted as a student at Mt. San Antonio College.
4. Submit an application for the Paramedic Program to the Technology and Health Division Office (909)594-5611, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. The Paramedic Program begins three times per year, in August, January, and May and runs for 29 weeks.
5. Take the AWE (Assessment of Written English, the Mt. SAC Math Placement test, and the degrees of Reading Power reading test at least ten working days before the state of the pre-course (EMS 1). Placement examinations will be individually assessed to determine eligibility. The placement test is administered by the Assessment Center, located in the Student Services Center. If required, arrange with the Center a day and a time to take the examination. The Assessment Center (909)594-5611 Ext. 4265, is open Monday through Friday.
7. Forward two official transcripts of all coursework completed (high school, EMT-I, Fire Science, and other than Mt. San Antonio College courses). One transcript must be sent to the Technology and Health Division Office, the other to the Admissions and Records Office.

**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
5. 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

- Possess the ability for extremely heavy effort (lift and carry at least 125 pounds)
- Perform considerable reaching, stooping, bending, kneeling, and crouching

**Sensory Demands:**

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

**Working Environment:**

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

**English Language Skills:**

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

**Major S0913**

This curriculum is recommended for those who wish to become an engineering technician, CAD 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:**
- EDT 11 Technical Engineering Drawing I 3.0 CSU
- EDT 12 Technical Engineering Drawing II 3.0 CSU
- EDT 14 Mechanical Design 3.0 CSU
- EDT 16 Basic CAD and Computer Applications 4.0 CSU
- EDT 18 Engineering CAD Applications 4.0 CSU
- EDT 20 Technical Descriptive Geometry 3.0 CSU
- EDT 24 Engineering CAD 3-D Solids 3.0 CSU and Surfaces
- EDT 26 Civil Engineering Technology 3.0 CSU and CAD
- EDT 28 Engineering CAD 3-D Illustration/Animation 3.0 CSU
- ELEC 50A Electronic Circuits (DC) 4.0 CSU
- ELEC 50B Electronic Circuits (AC) 4.0 CSU
- MFG 11 Manufacturing Processes I 2.0 CSU

**Total Units 39.0**

**Recommended Electives:**
- EDT 89 Engineering Design Technology Work Experience
- ENGR 8 Properties of Materials

### Agricultural Technology
**Agricultural Sciences Department**

**Major S0118**

The courses in equipment technology are designed to enable students to prepare for a career in this essential and diverse profession. This degree is part of our comprehensive Agricultural Sciences program. Our program is unique in that most courses provide hands-on experience and are designed to give the student a combination of practical skills and technical knowledge.

Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

This program is intended to prepare students to become technicians for entry level positions or skills enhancement in the operation, service, maintenance and repair of industrial and agricultural power equipment.

Listed below are the courses needed to satisfy major requirements. It is recommended that students consult with the department chairperson, counselor or advisor to file an educational plan. For additional information, call the Agricultural Sciences Department, ext. 4540 or visit the Mt. SAC Web site at www.mtsac.edu/instruction/sciences/agriculture.

**Equipment Operations**
- AGOR 51 Tractor and Landscape 3.0 CSU
- AGOR 52 Hydraulics 3.0 CSU
- AGOR 53 Small Engine Repair I 3.0 CSU
- AGOR 54 Small Engine Repair II 3.0 CSU
- AGOR 55 Diesel Engine Repair 3.0 CSU
- AGOR 56 Engine Diagnostics 3.0 CSU
- AGOR 57 Power Train Repair 3.0
- AGOR 71 Landscape Construction Fundamentals 3.0 CSU
- AGOR 72 Landscape Hardscape Application 3.0 CSU
- CSIB 15 Microcomputer Applications 4.0 CSU,UC

**Total Units 40.0**

**Recommended Electives:**
- 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
- AGOR 18 Business Law
- BUSL 18H Business Law - Honors
- BUSM 62 Human Resource Management
- BUSO 5 Business English
- BUSO 62 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

### 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 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- 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 25 Business Communications 3.0 CSU
- BUSR 50 Real Estate Principles 3.0 CSU
- BUSR 51 Legal Aspects of Real Estate 3.0
- BUSR 53 Real Estate Finance 3.0
- BUSR 76 Escrow Procedures I 3.0
- BUSR 77 Escrow Procedures II 3.0
- CSIB 15 Microcomputer Applications 4.0 CSU,UC
- CSI 11 Computer Keyboarding 4.0 CSU

**Total Units 40.0**

**Recommended Electives:**
- BUSA 8 Principles of Accounting - Managerial 5.0
- BUSL 18H Business Law - Honors
- BUSM 62 Human Resource Management
- BUSO 5 Business English
- 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
- FCS 41 Life Management 3.0 CSU
- FCS 80 Financial Planning 3.0 CSU
- ID 100 Fundamentals of 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 105 Interior Design Studio I
- ID 130 Applied Color and Design Theory

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**Programs Leading to an Associate degree**

**Programs Leading to an Associate degree**
**Programs Leading to an Associate degree**

**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 to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**
- FASH 8: Introduction to Fashion 3.0 CSU
- FASH 9: History of Costume and Fashion 3.0 CSU
- FASH 10: Clothing Construction I 3.0 CSU
- FASH 12: Clothing Construction II 3.0 CSU
- FASH 15: Fashion Strategies 3.0 CSU
- FASH 17: Textiles 3.0 CSU
- FASH 20: Illustration for Fashion and Costume Design 3.0
- FASH 21: Patternmaking I 3.0 CSU
- FASH 22: Fashion Design By Draping 3.0
- FASH 23: Patternmaking II 3.0
- FASH 30: Fashion Design and Product Development I 3.0
- FASH 31: Fashion Design and Product Development II 3.0
- FASH 32: Fashion Design and Product Development III 3.0

**Total Units:** 39.0

**Recommended Electives:**
- FASH 90, FASH 91, and FASH 92 may be taken two times for credit.

**Fashion Merchandising**

**Consumer Science and Design Technologies**

**Major S1308**

This program is intended to prepare students for employment in the fashion industry. A variety of career opportunities are available in retail merchandising, manufacturing, fashion, promotion, and self-employment. Students intending to pursue a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**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 15: Fashion Strategies 3.0 CSU
- FASH 17: Textiles 3.0 CSU, UC
- FASH 30: Fashion Design and Product Development I 3.0
- FASH 62: Retail Store Management and Merchandising 3.0 CSU
- BUSS 50: Retail Store Management and Merchandising 3.0 CSU
- FASH 63: Advertising and Promotion 3.0 CSU
- BUSS 33: Advertising and Promotion 3.0 CSU
- FASH 66: Visual Merchandising Display 3.0 CSU

**Total Units:** 27.0

**Recommended Electives:**
- BUSS 36: Principles of Marketing
- FASH 25: Fashion Computer - Assisted Drawing
- FASH 90: Field Studies
- FASH 91: Field Studies - New York
- FASH 92: Field Studies - Fashion Capitals
- FCS 41: Life Management
- FCS 41: Work Experience in Family and Consumer Sciences
- FASH 90, FASH 91 and FASH 92 may be taken two times for credit.

**Fire Technology**

**Fire Technology Department**

**Major S2105**

The Fire Science major has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**
- FIRE 1: Fire Protection Organization 3.0 CSU
- FIRE 2: Fire Prevention Technology 3.0 CSU
- FIRE 3: Fire Protection Equipment and Systems 3.0 CSU
- FIRE 4: Building Construction for Fire Protection 3.0 CSU
- FIRE 5: Fire Behavior and Combustion 3.0 CSU
- FIRE 6: Hazardous Materials/ICS 3.0

**PLUS**

Select two (2) course from:
- EMT 90: Emergency Medical Technician I 10.5
- FIRE 7: Fire Fighting Tactics and Strategy 3.0 CSU
- FIRE 8: Fire Company Organization and Management 3.0 CSU
- FIRE 9: Fire Hydraulics 3.0 CSU
- FIRE 10: Arson and Fire Investigation 3.0 CSU
- FIRE 11: Fire Apparatus and Equipment 3.0 CSU
- FIRE 12: Wildland Fire Control 4.5 CSU
- FIRE 86: Basic Fire Academy 15.5
- PE-F 53: Physical Training for the Basic Fire Academy 2.5 CSU

**Total Units:** 29 – 44.5

**Recommended Electives:**
- FIRE 20: Fire Instructor 1A
- FIRE 21: Fire Instructor 1B
- FIRE 30: Fire Management 1
- FIRE 40: Fire Prevention 1A
- FIRE 41: Fire Prevention 1B

**Fire Technology - Administration**

**Fire Technology Department**

**Major S2106**

The Fire Science major has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**
- BUSA 7: Principles of Accounting 5.0 CSU, UC - Financial
- CSB 11: Computer Information Systems 3.5 CSU, UC
- CSP 11: Basic Programming 4.0 CSU
- FIRE 1: Fire Protection Organization 3.0 CSU
- FIRE 8: Fire Company Organization and Management 3.0 CSU
- FIRE 30: Fire Management 1 2.0

**Total Units:** 20.5

**Recommended Electives:**
- FIRE 2: Fire Prevention Technology
- FIRE 40: Fire Prevention 1A
- FIRE 41: Fire Prevention 1B
- SPAN 66: Spanish for Fire and Police Personnel
### Requirements for the Major

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7 Principles of Accounting</td>
<td>5.0 CSU,UC</td>
</tr>
<tr>
<td>CSB 11 Computer Information Systems</td>
<td>3.5 CSU,UC</td>
</tr>
<tr>
<td>FIRE 1 Fire Protection Organization</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 8 Fire Company Organization</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 20 Fire Instructor 1A</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 21 Fire Instructor 1B</td>
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**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FIRE 2 Fire Prevention Technology</td>
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</tr>
<tr>
<td>FIRE 30 Fire Management</td>
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</tr>
<tr>
<td>FIRE 40 Fire Prevention 1A</td>
<td></td>
</tr>
<tr>
<td>FIRE 41 Fire Prevention 1B</td>
<td></td>
</tr>
<tr>
<td>SPAN 66 Spanish for Fire and Police Personnel</td>
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### Requirements for the Major

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>FIRE 7 Fire Fighting Tactics and Strategy</td>
<td>3.0 CSU</td>
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<tr>
<td>FIRE 8 Fire Company Organization</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 10 Arson and Fire Investigation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 20 Fire Instructor 1A</td>
<td>2.0</td>
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<td>FIRE 21 Fire Instructor 1B</td>
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**Recommended Electives:**

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<tr>
<td>EMT 90 Emergency Medical Technician I</td>
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<tr>
<td>FIRE 40 Fire Prevention 1A</td>
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<tr>
<td>FIRE 41 Fire Prevention 1B</td>
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<tr>
<td>FIRE 50 Fire Command 1A</td>
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<tr>
<td>FIRE 51 Fire Command 1B</td>
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### Requirements for the Major

**Required courses:**

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<tr>
<td>FIRE 1 Fire Prevention 1A</td>
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<tr>
<td>FIRE 2 Fire Prevention 1B</td>
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**Recommended Electives:**

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<tr>
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<tbody>
<tr>
<td>PE-F 51 Agility Testing Preparation for Law Enforcement and Fire Science</td>
<td></td>
</tr>
<tr>
<td>PE-F 52 Fitness and Conditioning for Law Enforcement, Fire Science and Forestry</td>
<td></td>
</tr>
<tr>
<td>SPAN 66 Spanish for Fire and Police Personnel</td>
<td></td>
</tr>
</tbody>
</table>

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### Programs Leading to an Associate degree

### Fire Technology - Administrative Communications

**Fire Technology Department**

**Major S2107**

The Fire Science major has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 7 Principles of Accounting</td>
<td>5.0 CSU,UC</td>
</tr>
<tr>
<td>CSB 11 Computer Information Systems</td>
<td>3.5 CSU,UC</td>
</tr>
<tr>
<td>FIRE 1 Fire Prevention Organization</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 8 Fire Company Organization</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 20 Fire Instructor 1A</td>
<td>2.0</td>
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<tr>
<td>FIRE 21 Fire Instructor 1B</td>
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<td><strong>Total Units</strong></td>
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**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 2 Fire Prevention Technology</td>
<td></td>
</tr>
<tr>
<td>FIRE 30 Fire Management</td>
<td></td>
</tr>
<tr>
<td>FIRE 40 Fire Prevention 1A</td>
<td></td>
</tr>
<tr>
<td>FIRE 41 Fire Prevention 1B</td>
<td></td>
</tr>
<tr>
<td>SPAN 66 Spanish for Fire and Police Personnel</td>
<td></td>
</tr>
</tbody>
</table>

### Fire Technology - Fire Management

**Fire Technology Department**

**Major S2109**

The Fire Science major has been developed to offer pre-employment education for the undergraduate who desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

**Requirements for the Major**

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>FIRE 1 Fire Prevention Organization</td>
<td>3.0 CSU</td>
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<tr>
<td>FIRE 2 Fire Prevention Technology</td>
<td>3.0 CSU</td>
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<tr>
<td>FIRE 3 Fire Protection Equipment</td>
<td>3.0 CSU</td>
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<tr>
<td>FIRE 4 Building Construction</td>
<td>3.0 CSU</td>
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<tr>
<td>FIRE 5 Fire Behavior and Combustion</td>
<td>3.0 CSU</td>
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<tr>
<td>FIRE 6 Hazardous Materials/ICS</td>
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<tr>
<td><strong>PLUS</strong></td>
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<tr>
<td><strong>The following courses:</strong></td>
<td></td>
</tr>
<tr>
<td>FIRE 7 Fire Fighting Tactics and Strategy</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 8 Fire Company Organization</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 10 Arson and Fire Investigation</td>
<td>3.0 CSU</td>
</tr>
<tr>
<td>FIRE 20 Fire Instructor 1A</td>
<td>2.0</td>
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<tr>
<td>FIRE 21 Fire Instructor 1B</td>
<td>2.0</td>
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<tr>
<td>FIRE 30 Fire Command 1A</td>
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<tr>
<td><strong>Total Units</strong></td>
<td><strong>33.0</strong></td>
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**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>EMT 90 Emergency Medical Technician I</td>
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<tr>
<td>FIRE 40 Fire Prevention 1A</td>
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<td>FIRE 41 Fire Prevention 1B</td>
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<td>FIRE 50 Fire Command 1A</td>
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<td>FIRE 51 Fire Command 1B</td>
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<tr>
<td>FIRE 52 Physical Skills Preparation for Law Enforcement and Fire Science</td>
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<td>FIRE 53 Agility Testing Preparation for Law Enforcement and Fire Science</td>
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**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 66 Spanish for Fire and Police Personnel</td>
<td></td>
</tr>
</tbody>
</table>
Programs Leading to an Associate degree

General Business
Accounting and Management Department
Major S0501

This program is intended to prepare students for employment following graduation. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
- BUSA 7 Principles of Accounting 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSL 18 Business Law 3.0 CSU,UC
- 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
- BUSO 5 Business English 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU
- CBIS 15 Microcomputer Applications 4.0 CSU,UC

PLUS
Select six (6) units from:
- BUSA 7 Principles of Accounting 5.0 CSU,UC
- BUSA 72 Bookkeeping - Accounting 5.0
- BUSL 18 Business Law 3.0 CSU,UC
- 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
- BUSO 5 Business English 3.0
- BUSO 25 Business Communications 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU
- CBIS 15 Microcomputer Applications 4.0 CSU,UC

Programs Leading to an Associate degree

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:
- ANAT 10B Introductory Human Physiology 4.0 CSU,UC
- ANAT 36 Human Physiology 5.0 CSU,UC
- ANAT 35 Human Anatomy 5.0 CSU
- CHEM 10 Chemistry for Allied Health Majors 4.0 CSU,UC
- GM 40 Introduction to General Chemistry 4.0 CSU,UC
- CHEM 50 General Chemistry I 5.0 CSU,UC
- HT 1 Introduction to Histotechnology 1.0
- HT 2 Scientific Basics for Histologic Technicians 3.0
- HT 10 Histology 3.0
- HT 12 Beginning Histotechniques 5.0
- HT 14 Advanced Histotechniques 4.0
- HT 16 Histochemistry/Immunohistochemistry 4.0
- HT 17 Work Experience 4.0
- MCR 1 Principles of Microbiology 5.0 CSU,UC
- MCR 22 Microbiology 4.0 CSU,UC

Total Units 41.0 - 44.0

Hospitality and Restaurant Management
Consumer Science and Design Technologies
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:
- AGAB 20 Microcomputer Applications 3.0 CSU,UC in Agriculture
- AGAG 20 Microcomputer Applications 3.0 CSU,UC
- AGAB 60 Work Experience in Agriculture 2.0
- AGAG 60 Work Experience in Agriculture 2.0
- AGAB 62 Work Experience in Agriculture 4.0
- AGAG 62 Work Experience in Agriculture 4.0
- AGAN 2 Animal Nutrition 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLI 16 Horse Production 4.0 CSU,UC
- AGLI 18 Horse Ranch Management 4.0 CSU
- AGLI 19 Horse Hoof Care 2.0 CSU
- AGLI 20 Horse Behavior and Training 2.0
- AGLI 96 Animal Sanitation and Disease Control 3.0 CSU
- AGLI 97 Artificial Insemination of Livestock 2.0

PLUS
Select three (3) units from:
- AGHE 84A Applied Animal Health Procedures 1.0
- AGOR 53 Small Engine Repair I 3.0 CSU
- AGOR 71 Landscape Construction 3.0 CSU
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 66 Small Business Management 3.0 CSU

Total Units 28.5

Horse Ranch Management
Agricultural Sciences Department
Major S0102

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:
- HRM 51 Introduction to Hospitality 3.0 CSU
- HRM 52 Food Safety and Sanitation 1.5 CSU
- HRM 53 Dining Room Service Management 3.0 CSU
- HRM 54 Commercial Food Preparation 3.0 CSU
- HRM 56 Management of Hospitality Personnel and Operations 3.0 CSU
- HRM 57 Restaurant Cost Control 3.0 CSU
- HRM 64 Hospitality Financial Accounting 1.3 CSU
- HRM 66 Hospitality Law 3.0 CSU
- HRM 70 Introduction to Lodging 3.0 CSU

PLUS
Select three (3) units from:
- HRM 61 Menu Planning 3.0 CSU
- HRM 62 Catering 3.0 CSU
- HRM 93 Work Experience in Restaurant/Hospitality 3.0 CSU
- NF 20 Principles of Foods With Lab 3.0 CSU

Recommended Electives:
- HRM 91 Work Experience in Restaurant/Hospitality
### Human Resource Management

**Accounting and Management Department**

**Major S0530**

The Human Resource Management degree is intended to prepare students to enter the business world in the dynamic environment of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resource management. Studies in human resource law, compensation systems, training, and development will provide the student a solid foundation from which to build a career in human resource management. Transfer students will gain a strong human resource management business elective base initiating further study in a variety of fields. Students active in the work arena will acquire new skills that are highly desirable in a fast-paced work force.

**Requirements for the Major**

**Required courses:**
- BUSM 20 Principles of Business 3.0 CSU, UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization 3.0 CSU
- BUSM 62 Human Resource Management 3.0
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 81 Work Experience in Business

**Total Units** 28.0

**Recommended Electives:**

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<tr>
<td>BUSL 19</td>
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<td>BUSM 20</td>
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<td>BUSM 50</td>
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<td>BUSM 51</td>
<td>Principles of International Business</td>
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<td>BUSM 52</td>
<td>Principles of Exporting and Importing</td>
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<td>BUSM 58</td>
<td>Principles of Marketing</td>
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**Plus**

Select one (1) course from:
- BUSL 70 International Marketing Concepts 3.0
- CHIN 1 Beginning Chinese 4.0 CSU, UC
- FRCH 1 Elementary French 4.0 CSU, UC
- GERM 1 Elementary German 4.0 CSU, UC
- ITAL 1 Elementary Italian 4.0 CSU, UC
- JAPN 1 Elementary Japanese 4.0 CSU
- SPAN 1 Elementary Spanish 4.0 CSU

**Total Units** 27.0 - 28.0

### Interior 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 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:**
- 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

**Total Units** 28.0

**Recommended Electives:**

<table>
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<tr>
<th>Course ID</th>
<th>Course Title</th>
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<td>ID 20</td>
<td>Color and Design Theory I</td>
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<tr>
<td>ID 21</td>
<td>Color and Design Theory II</td>
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<tr>
<td>ID 22</td>
<td>Design Drawing for Interior Design</td>
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<tr>
<td>ID 23</td>
<td>Computer Aided Drawing for Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ID 25</td>
<td>Codes and Specifications for Interior Design</td>
<td>3.0</td>
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<td>ID 26</td>
<td>Space Planning for Interior Design</td>
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<tr>
<td>ID 27</td>
<td>Rapid Visualization</td>
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<td>ID 29</td>
<td>Interior Design Studio I</td>
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<td>ID 31</td>
<td>Building Systems for Interior Design</td>
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<td>ID 32</td>
<td>Lighting Design</td>
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<td>ID 34</td>
<td>Computer Aided Drawing for Interior Design II</td>
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<td>ID 37</td>
<td>Business Practices for Interior Design</td>
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<td>ID 38</td>
<td>Internship in Interior Design (1-3 unit course, 2 units required)</td>
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<tr>
<td>ID 39</td>
<td>Interior Design Studio II</td>
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</table>

**Total Units** 50.0

**Interior Design - Kitchen and Bath Design**

**Consumer Science and Design Technologies**

**Major S1302**

The Interior Design - Kitchen and Bath Design A.S. degree provides 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 program and meeting the eligibility requirements will qualify 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 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 3.0
- ID 16 Interior Design Studio I 3.0
- ID 18 Interior Design Studio II 3.0
- 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) 2.0
- ID 39 Interior Design Studio II 3.0
- ID 40 Kitchen and Bath Studio I 3.0
- ID 41 Kitchen and Bath Studio II 3.0
- ID 48 Internship in Kitchen and Bath Design (1-3 unit course, 2 units required) 2.0

**Total Units** 58.0

**Recommended Electives:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ARTG 20</td>
<td>Exhibition Design</td>
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</tr>
<tr>
<td>BUSL 72</td>
<td>Bookkeeping - Accounting</td>
<td>2.0</td>
</tr>
<tr>
<td>BUSM 50</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>
- 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) 2.0
- ID 39 Interior Design Studio II 3.0
- ID 40 Kitchen and Bath Studio I 3.0
- ID 41 Kitchen and Bath Studio II 3.0
- ID 48 Internship in Kitchen and Bath Design (1-3 unit course, 2 units required) 2.0

**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:**
- BUSL 20 International Business Law 3.0
- BUSM 20 Principles of Business 3.0 CSU, UC
- BUSM 50 World Culture: A Business Perspective 3.0 CSU
- ANTH 22 General Cultural Anthropology 3.0 CSU, UC
- BUSL 51 Principles of International Business 3.0 CSU
- BUSM 52 Principles of Exporting and Importing 3.0 CSU
- BUSM 61 Business Organization and Management 3.0 CSU
- BUSM 66 Small Business Management 3.0 CSU
- BUSM 36 Principles of Marketing 3.0 CSU

**Plus**

Select one (1) course from:
- BUSL 70 International Marketing Concepts 3.0
- CHIN 1 Beginning Chinese 4.0 CSU, UC
- FRCH 1 Elementary French 4.0 CSU, UC
- GERM 1 Elementary German 4.0 CSU, UC
- ITAL 1 Elementary Italian 4.0 CSU, UC
- JAPN 1 Elementary Japanese 4.0 CSU
- SPAN 1 Elementary Spanish 4.0 CSU

**Total Units** 27.0 - 28.0

**Recommended Electives:**

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<th>Course ID</th>
<th>Course Title</th>
<th>Units</th>
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<td>BUSS 85</td>
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</table>
Programs Leading to an Associate degree

Law Enforcement
Public Services Department
Major S2102
This program is intended to prepare students for employment following graduation. Students desiring a bachelor’s degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major
Required courses:
- ADJU 1 The Administration of Justice System 3.0 CSU
- ADJU 2 Principles and Procedures of the Justice System 3.0 CSU
- ADJU 3 Concepts of Criminal Law 3.0 CSU
- ADJU 4 Legal Aspects of Evidence 3.0 CSU
- ADJU 5 Community Relations 3.0 CSU
- ADJU 68 Administration of Justice 3.0

PLUS
Select four (4) courses from:
- ADJU 6 Concepts of Enforcement Services 3.0
- ADJU 13 Concepts of Traffic Services 3.0
- ADJU 20 Principles of Investigation 3.0 CSU
- ADJU 28 Narcotics Investigation 3.0
- ADJU 59 Gangs in the Community/Corrections 3.0 CSU
- ADJU 74 Vice Control 3.0

CORS 30 Ethnic Relations in Corrections 3.0
CORS 40 Crime and Delinegency 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

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 successfully pass the NCLEX-RN examination leading to licensure as a Registered Nurse.

Coursework includes anatomy, physiology, pharmacology, microbiology, and medical/surgical nursing. Graduates of the program receive an Associate Degree in Science in Nursing and are eligible to take the NCLEX-RN examination leading to licensure as a Registered Nurse.

NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis 5.0 CSU
NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation 5.0 CSU
NURS 9 Leadership in Nursing 1.0 CSU
NURS 10 Medical-Surgical Nursing: Integration/Regulation 4.0 CSU
NURS 11 Preceptorship in Nursing 2.0 CSU

Total Units 28.0

Requirements for the Major
ANAT 35 Human Anatomy and
ANAT 36 Human Physiology or
ANAT 10A Introductory Human Anatomy and
ANAT 10B Introductory Human Physiology
MIR 1 Principles of Microbiology 5.0 CSU
or
MICR 22 Microbiology 4.0 CSU
ENGL 1A Freshman Composition 3.0 CSU
CHLD 10 Child Growth and Development 3.0 CSU
or
SPCH 1A Public Speaking 3.0 CSU

Total Units 24.0 - 27.0

NOTE: Applicants planning to continue their education and enter a baccalaureate program in nursing will need to complete ANAT 35 and ANAT 36 instead of ANAT 10A and ANAT 10B and MIR 1 instead of MICR 22.

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 Unitek 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.

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
Livestock Management

Agricultural Sciences Department

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 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
- AGAG 91 Agricultural Calculations 3.0
- AGAN 1 Animal Science 3.0 CSU,UC
- AGAN 2 Animal Nutrition 3.0 CSU
- AGAN 94 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 35 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
- BUSM 20 Principles of Business 3.0 CSU,UC
- BUSM 66 Small Business Management 3.0 CSU
- BUSS 35 Professional Selling 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU

Total Units 43.0 – 46.0

Manufacturing Technology

Aircraft Maintenance Tech & Manufacturing Dept.

Major S05918

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 Blueprintreading 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 Numerical Control (CNC) Programming 2.0 CSU

PLUS

Select two (2) course from:

- MFG 25 Advanced Parametric Solid Modeling for Manufacturing 2.0
- MFG 27 AutoDesk Inventor 2.0
- WELD 40 Introduction to Welding 2.0 CSU

Total Units 27.0

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:

- BUSA 7 Principles of Accounting - Financial 5.0 CSU,UC
- BUSA 18H Principles of Economics - Microeconomics - Honors 3.0 CSU,UC
- BUSA 18 Principles of Economics - Microeconomics 3.0 CSU,UC
- BUSA 28 Microeconomics - Honors 3.0 CSU
- BUSC 1AH Principles of Economics - Macroeconomics - Honors 3.0 CSU,UC
- BUSC 1A Principles of Economics - Macroeconomics 3.0 CSU,UC
- BUSC 17 Applied Business Statistics 3.0 CSU,UC
- BUSM 60 Business English Total Units 3.0
Programs Leading to an Associate degree

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 58L 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 CSU,UC

Total Units 54.0

Special Information

Additional general education courses needed for completion of the Associate in Science degree requirements are listed in the Mt. San Antonio College Catalog, but are not required to qualify the student for the California State Board Examination.

Sensory Demands:
- Color vision: ability to distinguish and identify colors
- Distance vision: ability to see clearly 20 feet or more
- Depth perception: ability to judge distance and space relationships
- Hearing: able to recognize a full range of tones

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

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

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

**Nursing Department Major S1203**
The Mt. San Antonio College Nursing Program, approved and accredited by the California Board of Registered Nursing, is a two-year program designed to prepare men and women to give direct nursing care to clients in various practice settings. The program consists of 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.

#### 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:
- 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.
- A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
- Eligibility for Math 51.
- High school graduation or GED or academic degree from an accredited college/university in the United States.
- A criminal background check and drug screening must be completed prior to any patient contact.
- A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes.
- Current Level C-Provider CPR certification

#### Regarding Licensure:
The California Board of Registered Nursing (BRN) protects the consumer by screening applicants for licensure in order to identify potentially unsafe practitioners. The BRN may deny applications for interim permits, temporary licenses, and permanent licensure, if the applicant has been found guilty of dishonesty, fraud or deceit, felony child abuse, sex offended crimes, acts involving narcotics, dangerous drugs or devices, assault and/or battery, and other crimes. Applicants who have questions regarding limitations related to licensure should contact the California Board of Registered Nursing at (916) 322-3350 or access its website at www.rn.ca.gov

### Programs Leading to an Associate degree

#### Requirements for Nursing

**Required courses:**
- NURS 1A: The Nursing Process I 5.0 CSU
- NURS 1B: The Nursing Process II 5.0 CSU
- NURS 2: Pharmacology 2.0 CSU
- NURS 3: Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology 3.5 CSU
- NURS 4: Maternity Nursing 3.0 CSU
- NURS 5: Psychiatric Nursing 3.0 CSU
- NURS 6: Pediatric Nursing 3.0 CSU
- NURS 7: Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis 7.5 CSU
- NURS 8: Medical-Surgical Nursing: Circulation and Oxygenation 5.5 CSU
- NURS 9: Leadership in Nursing 1.0 CSU
- NURS 10: Medical-Surgical Nursing: Integration/Regulation 4.0 CSU
- NURS 11: Preceptorship in Nursing 2.0 CSU

**Total Units**: 44.5

#### Requirements for the Major

- ANAT 35: Human Anatomy 5.0 CSU, UC
- ANAT 36: Human Physiology 5.0 CSU, UC
- ANAT 10A: Introductory Human Anatomy and Animal Physiology 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 3.0 CSU
- CHLD 10: Child Growth and Development 3.0 CSU
- PSYC 14: Developmental Psychology 3.0 CSU
- PSYC 1A: Introduction to Psychology 3.0 CSU
- SPEECH 1A: Public Speaking 3.0 CSU, UC

**Total Units**: 24.0 - 27.0

**NOTE:** Applicants planning to continue their education and enter a baccalaureate program in nursing will need to complete ANAT 35 and ANAT 36 instead of ANAT 10A and ANAT 10B and 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.

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

**Procedure:**
- Students must complete all course prerequisites prior to requesting an appointment for certifying readiness to enter into the Nursing Program:
  1. Students must complete all course prerequisites prior to requesting an appointment for certifying readiness.
    - **Course Prerequisites:**
      a) ANAT 10A or 35, Human Anatomy; ANAT 10B or 36, Human Physiology; MICR 1 or 22, Microbiology; ENGL 1A, Freshman Composition
  
  2. Eligibility for entering the Nursing Program will be based on the following performance criteria:
     a) A grade point average of 2.5 in Human Anatomy, Human Physiology and Microbiology. Each course must be completed with a minimum grade of "C", and no more than one repetition of one course.
     b) English composition must be completed with a grade of "C" or higher;
     c) A minimum cumulative grade point average of 2.5, in all college coursework completed at the time of certification;
     d) Students must have eligibility to enroll in MATH 51, Elementary Algebra.
  
  3. The eligibility appointment:
     a) Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
     b) Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:

**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.
Programs Leading to an Associate degree

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

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

Ornamental Horticulture
Agricultural Sciences Department
Major S0119
The courses in ornamental horticulture are 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, arboriculture and botanic gardens, arboriculture, interior landscaping, education, and research are just some of the options. This degree is part of our comprehensive agricultural sciences program. Our program is unique in that most courses provide hands-on experience and are designed to give the student combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

Requirements for the Major Required courses:

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<th>Course</th>
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Total Units 38.0

Paralegal/Legal - Bankruptcy Specialty
Business Administration Department
Major S1401
The Paralegal/Legal - Bankruptcy Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney or learned professional, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills, as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses. The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.

Requirements for the Major Required courses:

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<th>Course</th>
<th>Units</th>
<th>Notes</th>
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</table>

Total Units 38.0

The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including PLGL 36 - Paralegal Internship.

Special Information:
The ABA does not recognize the following courses as meeting its definition of General Education: ARTD 14, ARTD 15A, ARTD 17A, ARTD 20, ARTD 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3 and COUN 5. Students developing their educational plan should select another course from the Mt.SAC General Education area which will satisfy that area's General Education requirement.
Programs Leading to an Associate degree

Paralegal/Legal - Corporations/Business Specialty
Business Administration Department
Major S1405

The Paralegal/Legal - Corporations/Business Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialist Program has been granted approval by the American Bar Association.

Requirements for the Major

**Required courses:**
- 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
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU

**Special Information:**
The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARJD 20, ARTD 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3, and COUN 5. Students developing their educational plan should select that area's General Education requirements.

**Recommended Electives:**
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU
- PLGL 33B Civil Procedure-Trial 3.0 CSU
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues 2.0
- PLGL 39 Contract Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues 2.0
- PLGL 39 Contract Law 3.0 CSU
- PLGL 48 Criminal Law and Procedures 3.0 CSU
- PLGL 49 Evidence Law 3.0 CSU

**Total Units 38.0**

**Paralegal/Legal - Criminal Specialty
Business Administration Department
Major S1402**

The Paralegal/Legal - Criminal Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.

Requirements for the Major

**Required courses:**
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU
- PLGL 33B Civil Procedure-Trial 3.0 CSU
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues 2.0
- PLGL 39 Contract Law 3.0 CSU
- PLGL 48 Criminal Law and Procedures 3.0 CSU
- PLGL 49 Evidence Law 3.0 CSU

**Recommended Electives:**
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU
- PLGL 33B Civil Procedure-Trial 3.0 CSU
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues 2.0

**Total Units 35.0**

**Paralegal/Legal - Family Law Specialty
Business Administration Department
Major S1403**

The Paralegal/Legal - Family Law Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws Section 21.12 uses the terms paralegal and legal assistant interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialty Program has been granted approval by the American Bar Association.

Requirements for the Major

**Recommended Electives:**
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU
- PLGL 33B Civil Procedure-Trial 3.0 CSU
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues 2.0

**Total Units 35.0**
### Programs Leading to an Associate degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLGL 39</td>
<td>Contract Law</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>PLGL 41</td>
<td>Property Law</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>PLGL 42</td>
<td>Family Law</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td>PLGL 43</td>
<td>Will's and Trusts</td>
<td>3.0</td>
<td>CSU</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>38.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Recommended Electives:**
- The Paralegal/Legal faculty recommends that students complement their studies with selected elective courses, including PLGL 36 - Paralegal Internship.

**Special Information:**
- The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARID 20, ARID 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3 and COON 5. Students developing their educational plan should select another course from the Mt.SAC General Education area which will satisfy that area's General Education requirement.

### Paralegal/Legal - Landlord/Tenant Specialty

#### Business Administration Department

**Major S1404**

The Paralegal/Legal - Landlord/Tenant Specialty program is intended to prepare students for employment as paralegals in both private and public sectors following graduation. The American Bar Association (ABA) By-Laws 21.7.12 uses the terms paralegal and legal assistant interchangeably referring to persons who although not members of the legal profession, are qualified through education, training, or work experience and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the direction and supervision of an attorney, of specifically delegated substantive legal work. Paralegals/legal assistants must comply with the legal restrictions in the practice of law by nonlawyers.

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

The American Bar Association has reviewed the Paralegal/Legal Specialist Program and found it in compliance with the standards developed by the Standing Committee on Legal Assistant Programs. The Paralegal/Legal Specialist Program has been granted approval by the American Bar Association.

**Requirements for the Major Required courses:**
- PLGL 30 Introduction to Paralegal/Legal 3.0 CSU
- PLGL 31A Legal Analysis and Writing 3.0 CSU
- PLGL 31B Advanced Legal Analysis and Writing 3.0 CSU
- PLGL 33A Civil Procedure Pretrial 3.0 CSU
- PLGL 33B Civil Procedure-Trial 3.0 CSU
- PLGL 35A Law Office Procedures 3.0 CSU
- PLGL 35B Automated Law Office Procedures 3.0 CSU
- PLGL 37 Tort Law 3.0 CSU
- PLGL 38 Employment and Ethical Issues 2.0 in Paralegalism
- PLGL 39 Contract Law 3.0 CSU
- PLGL 40 Landlord-Tenant Law 3.0 CSU
- PLGL 41 Property Law 3.0 CSU

**Total Units 35.0**

**Recommended Electives:**
- The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including PLGL 36 Paralegal Internship.

**Special Information:**
- The ABA does not recognize the following courses as meeting its definition of General Education: ARTB 14, ARTD 15A, ARTD 17A, ARID 20, ARID 25A, ARTS 30A, ARTS 40A, THTR 11, MUS 7, AD 3 and COON 5. Students developing their educational plan should select another course from the Mt.SAC General Education area which will satisfy that area's General Education requirement.

### Agricultural Sciences Department

#### Park and Sports Turf Management

**Major S0116**

The courses in park and sports turf management are designed to enable students to prepare for a career in this essential and diverse profession. The program is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

This program is intended to prepare students to manage a park or sports facility and also for employment following graduation. Students will learn how to design, install and manage irrigation systems, set up and implement fertilizer and pest management programs, design and properly install a complete landscape (including all plants and hard cape), 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 24 Microcomputer Applications 3.0 CSU, UC
- AGOR 4 Park Management 3.0
- AGOR 5 Park Facilities 3.0
- AGOR 13 Landscape Design 3.0 CSU
- AGOR 24 Integrated Pest Management 3.0 CSU
- AGOR 29 Ornamental Plants - Herbaceous 3.0 CSU, UC
- AGOR 30 Ornamental Plants 3.0 CSU, UC
- AGOR 39 Turf Grass Production and Management 3.0 CSU
- AGOR 40 Sports Turf Management 3.0 CSU
- AGOR 50 Soil Science and Management 3.0
- AGOR 51 Tractor and Landscape Equipment Operations 3.0
- AGOR 62 Landscape Irrigation - Design and Installation 3.0 CSU
- AGOR 63 Landscape Irrigation 3.0
- AGOR 71 Landscape Construction 3.0 CSU
- AGOR 73 Landscaping Laws, Contracting and Estimating 3.0
- AGOR 74 Urban Arboriculture 3.0
- AGOR 91 Work Experience in Nursery Operations 1.0 – 4.0

**Total Units 46.0 - 49.0**

### Pet Science

#### Agricultural Sciences Department

**Major S0104**

The program of courses in Agriculture is designed to enable students to prepare for a career in this essential and diverse profession. The Department offers a comprehensive Agricultural Sciences Program and is unique in that most courses provide hands-on experience designed to give the student a combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the lower division requirements in the catalog of the college or university they will attend and also the semester and year in which courses are offered.

The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. It is recommended that all students consult with the department chairperson, counselor or advisor to file an educational plan.

**Requirements for the Major Required courses:**
- AGAB 20 Microcomputer Applications in Agriculture 3.0 CSU, UC
- AGAN 1 Animal Science 3.0 CSU, UC
- AGAN 2 Animal Nutrition 3.0
- AGAN 51 Animal Handling and Restraint 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGLI 96 Animal Sanitation and Disease Control 3.0
- 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**
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

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 10 Photo Editing with Photoshop</td>
</tr>
<tr>
<td>PHOT 10 Basic Digital</td>
</tr>
<tr>
<td>or Film Photography</td>
</tr>
<tr>
<td>PHOT 11 Advanced Professional Photography</td>
</tr>
<tr>
<td>PHOT 12 Photographic Alternatives</td>
</tr>
<tr>
<td>PHOT 15 History of Photography</td>
</tr>
<tr>
<td>PHOT 16 Fashion Photography</td>
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<tr>
<td>or</td>
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<tr>
<td>PHOT 18 Portraiture</td>
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<tr>
<td>or</td>
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<tr>
<td>PHOT 17 Photomicrography</td>
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<tr>
<td>PHOT 20 Color Photography</td>
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<tr>
<td>PHOT 21 Exploring Color Photography</td>
</tr>
<tr>
<td>PHOT 28 Photography Portfolio</td>
</tr>
<tr>
<td>PHOT 30 Commercial or Illustrative Photography</td>
</tr>
<tr>
<td>Total Units</td>
</tr>
</tbody>
</table>

Recommended Electives:

| AHS 1 Understanding the Visual Arts |
| ARTB 1 Understanding the Visual Arts |
| GRAP 12 Advanced Photo Editing with Photoshop |
| PHOT 1 BLack and White Photography |
| PHOT 2 Laboratory Studies: Color Photography |

Physical Education
Physical Education Department
Major S0806
This program is designed to prepare students for employment in the field of Physical Education. Students wishing a bachelor's degree (transfer program) should consult with a counselor or advisor to file an educational plan and to discuss transferability.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 35 Human Anatomy</td>
</tr>
<tr>
<td>ANAT 36 Human Physiology</td>
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<tr>
<td>or</td>
</tr>
<tr>
<td>NF 10 Nutrition for Personal Health and Wellness</td>
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<tr>
<td>or</td>
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<tr>
<td>NF 25 Essentials of Nutrition</td>
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<tr>
<td>or</td>
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<tr>
<td>NF 25H Essentials of Nutrition - Honors</td>
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<tr>
<td>or</td>
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<tr>
<td>PE 3 First Aid and CPR</td>
</tr>
<tr>
<td>or</td>
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<tr>
<td>PE 5 Advanced First Aid CPR/Emergency Response</td>
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<tr>
<td>or</td>
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<tr>
<td>PE 17 Introduction to Physical Education</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>PE 19 Introduction to Care/Prevention of Activity/Related Injuries</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>PE 3A Fitness for Living</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>Plus Select eight (8) courses from:</td>
</tr>
<tr>
<td>DNCE Dance: Activity</td>
</tr>
<tr>
<td>PE-A Physical Education: Aquatics</td>
</tr>
<tr>
<td>PE-F Physical Education: Fitness</td>
</tr>
<tr>
<td>PE-I Physical Education: Individual</td>
</tr>
<tr>
<td>PE-L Physical Education: Adaptive</td>
</tr>
<tr>
<td>PE-S Physical Education: Team Sports</td>
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<tr>
<td>Total Units</td>
</tr>
</tbody>
</table>

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 with units with a minimum grade of C.
5. PSYC 1A Introduction to Psychology
6. CHLD 10 Child Growth and Development or 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 course.
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

Nursing 70 Role Transition must be completed with a credit grade prior to entrance into the program.

(NURS 70 Role Transition - Due to the clinical component of NURS 70, applicants must submit their names to Nursing Office for approval prior to enrollment in this course. Applicants must have completed all prerequisite courses prior to taking NURS 70. Applicants must provide proof of current 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 | 3.5 |
| NURS 4 Maternity Nursing | 3.0 |
| NURS 6 Pediatric Nursing | 3.0 |
| NURS 7 Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis | 3.0 |
| NURS 8 Medical-Surgical Nursing: Circulation and Oxygenation | 3.0 |
| NURS 9 Leadership in Nursing | 1.0 |
| NURS 10 Medical-Surgical Nursing: Integration/Regulation | 3.0 |
| NURS 11 Preceptorship in Nursing | 2.0 |
| Total Units | 28.5 |

Requirements for the Major

| ANAT 35 Human Anatomy | 5.0 |
| ANAT 36 Human Physiology | 5.0 |
| ANAT 10A Introductory Human Anatomy and Microbiology | 5.0 |
| MICR 1 Principles of Microbiology | 5.0 |
| MICR 22 Microbiology | 4.0 |
| ENGL 1A Freshman Composition | 4.0 |
| CHLD 10 Child Growth and Development | 3.0 |
| PSYC 1A Developmental Psychology | 3.0 |
| SPCH 1A Public Speaking | 3.0 |
| Total Units | 25.0 - 27.0 |

NOTE: Applicants planning to continue their education and enter a baccalaureate program in nursing will need to complete ANAT 35 and ANAT 36 instead of ANAT 10A and ANAT 10B and MICR 1 instead of MICR 22.
Programs Leading to an Associate Degree

Requirements for the Associate Degree

Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the A.S. degree. Contact Counseling and Advising Services to schedule an appointment.

Selection Process

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

Procedure:

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

The eligibility appointment:

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

b) Students who have completed coursework at other colleges must bring the following information to their 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

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, bending, pushing, and/or transferring patients
- Possess the ability to perform fine motor movements with hand 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 criteria for admission into the program, students are encouraged to be able to speak, write and read English, to complete classes successfully and to ensure safety for themselves and for others.

Radio Broadcasting: Behind the Scenes

Commercial and Entertainment Arts

Major S0605

The Radio Broadcasting Behind-the-Scenes degree is designed for students who are interested in the non-performance side of the broadcasting industry. In this major, students are prepared for entry-level jobs in a variety of areas including production, promotion, copywriting and management. Students also receive instruction in the business side of the industry and can further customize their program by selecting from a variety of optional courses. 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:

- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 09 Broadcast Sales and Promotion 3.0
- R-TV 10 Radio Management 3.0
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 97A Radio/Entertainment 1.0
- R-TV 97B Radio/Entertainment 1.0
- R-TV 97C Radio/Entertainment 1.0

PLUS

Select nine (9) units from:

- R-TV 12 Commercial Copywriting 3.0
- R-TV 26 Legal Issues in Entertainment Law 3.0
- R-TV 31 History of Radio Djs 3.0
- R-TV 32 R-TV Internet Applications 3.0
- R-TV 33 Radio Show Producer Techniques 3.0
- R-TV 01 Introduction to Broadcasting 3.0 CSU
- R-TV 02 On-Air Personality Development 3.0 CSU
- R-TV 05 Radio-TV Newswriting 3.0
- R-TV 07A Beginning Commercial Voice-Overs 3.0
- R-TV 11A Beginning Radio Production 3.0 CSU
- R-TV 11B Advanced Radio Production 3.0 CSU
- R-TV 15 Broadcast Business Practices 3.0
- R-TV 16 Broadcast Career Preparation 3.0
- R-TV 97A Radio/Entertainment 1.0
- R-TV 97B Radio/Entertainment 1.0
- R-TV 97C Radio/Entertainment 1.0

Total Units 33.0 - 34.0
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 Technologist. This is a licensed profession, and a valid Social Security Number is required to obtain state certification and national licensure.

Requirements for the Major

Required courses:

- ANAT 10A Introductory Human Anatomy 4.0 CSU, UC
- MEDI 90 Medical Terminology 3.0 CSU
- 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 CSU
- RAD 52A Techniques of Radiologic Technology 5.0 CSU
- RAD 52B Techniques of Radiologic Technology 2.5 CSU
- RAD 53 Techniques of Radiologic Technology 5.0 CSU
- RAD 54 Techniques of Radiologic Technology 3.0 CSU
- RAD 55A Techniques of Radiologic Technology 7.5 CSU
- RAD 55B Techniques of Radiologic Technology 2.5 CSU
- RAD 56 Techniques of Radiologic Technology 7.0 CSU
- RAD 57 Techniques of Radiologic Technology 4.5 CSU
- RAD 61A Theory of Radiologic Technology 4.0 CSU
- RAD 61B Radiographic Positioning 3.0 CSU
- RAD 61C Radiologic Technology Seminar 1.0 CSU
- RAD 62A Theory of Radiologic Technology 4.0 CSU
- RAD 62B Radiographic Positioning 3.0 CSU
- RAD 62C Radiologic Technology Seminar 1.0 CSU
- RAD 63 Theory of Radiologic Technology 4.0 CSU
- RAD 64 Theory of Radiologic Technology 4.0 CSU
- RAD 91 Nursing Procedures 1.5 CSU

Total Units 78.0

Required courses for the major will be offered each semester. The student should consult the college class schedule for course availability.

NOTE: ANAT 10A, and MEDI 90 may be taken prior to entering program.

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 used as an indicator. If you have already taken a college placement test exam within the past two years at another school, arrange to have your scores forwarded to the Technology and Health Division Office. If you were tested at Mt. San Antonio College, the Technology and Health Division Office will obtain the test scores as long as an “Application for Admission” is on file with the Admissions and Records Office. Arrangement should be made with the Service Center to schedule a date and time to take the college placement examination if required. The Assessment Center is open Monday through Friday.
- Complete the following prerequisite courses with a minimum grade of "C" in each course.

Acceptance Requirements:

- General High School Algebra (one year) or Introductory College Algebra (one semester) or MATH 51 (Elementary Algebra), or equivalent;
- General High School Chemistry (one year) or Introductory College Chemistry (one semester) or CHEM 10 - Chemistry for Allied Health.

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 later than one month prior to beginning of a program.

Program Completion 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 general 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.

Working Environment:

- May be exposed to infectious and contagious disease, with prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to odorous chemicals and specimens
- Subject to hazards of flammable, explosive gases
- Subject to burns and cuts
- Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires decisions/actions critical to patient safety
- Exposed to products containing latex.

Contact with patients having different religious, culture, ethnicity, race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
**Programs Leading to an Associate degree**

**Real Estate**  
Business Administration Department  
Major S0512

This program prepares students for employment following graduation. Students wishing a bachelor's degree (transfer program) should consult with an advisor to discuss transferability of courses.

**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 55 Real Estate Economics 3.0
- BUSR 81 Appraisal: Principles and Procedures 3.5
- CBIS 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 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

**Group B**  
Select zero (0), one (1) or two (2) units 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
- BUSS 35 Professional Selling 3.0 CSU
- BUSS 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 3.0
- BUSR 76 Escrow Procedures I 3.0
- CBIS 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, UC
- AGAN 51 Animal Handling and Restraint 3.0 CSU
- AGAN 94 Animal Breeding 3.0
- AGHE 54 Veterinary Office Procedures 3.0
- AGSL 96 Animal Sanitation and Disease Control 3.0 CSU

**Required courses 2nd year:**

- AGAN 95 Animal Reproduction and Disease Control 3.0 CSU, UC
- AGS 5 Veterinary Clinical Science 3.0
- AGS 7 Veterinary Science 4.0
- INSP 70 Elements of Construction 3.0 CSU
### Programs Leading to an Associate degree

#### Respiratory Therapy

**Respiratory Therapy Department Major S1205**

The Respiratory Therapy Program, which is accredited by the Committee on Accreditation for Respiratory Care (CoARC), is designed to train students to function as Respiratory Therapists.

Respiratory Therapy is the application of technical skills involving a complete understanding of cardiopulmonary physiology and recognition of various pathological conditions that alter the patient’s ability to breathe effectively.

By applying medical gases under pressure - i.e., compressed air, oxygen, and other mixtures - to the airways through the use of various kinds of equipment, the therapist, under the direction of the physician, treats the diseased or ineffective respiratory system.

Some mechanical aptitude and manual dexterity is helpful in learning the operation of specialized equipment. This includes diagnostic apparatus which aids the physician in detecting cardiopulmonary diseases.

#### 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>RESD 50</td>
<td>Theory and Principles of Respiratory Therapy</td>
<td>2.0</td>
</tr>
<tr>
<td>RESD 51A</td>
<td>Respiratory Therapy Science</td>
<td>4.0</td>
</tr>
<tr>
<td>RESD 51B</td>
<td>Respiratory Therapy Science</td>
<td>4.0</td>
</tr>
<tr>
<td>RESD 52</td>
<td>Pulmonary Anatomy and Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 53</td>
<td>Cardiopulmonary Pathophysiology</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 55</td>
<td>Adult Respiratory Intensive Care</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 56A</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
</tr>
<tr>
<td>RESD 56B</td>
<td>Techniques of Respiratory Therapy</td>
<td>6.0</td>
</tr>
<tr>
<td>RESD 56C</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
</tr>
<tr>
<td>RESD 56D</td>
<td>Techniques of Respiratory Therapy</td>
<td>2.5</td>
</tr>
<tr>
<td>RESD 57A</td>
<td>Special Procedures for Respiratory Care</td>
<td>1.5</td>
</tr>
<tr>
<td>RESD 57B</td>
<td>Special Procedures for Respiratory Care</td>
<td>1.5</td>
</tr>
<tr>
<td>RESD 58</td>
<td>Neonatal Intensive Care</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 59</td>
<td>Respiratory Therapeutic Modalities</td>
<td>3.0</td>
</tr>
<tr>
<td>RESD 60</td>
<td>Comprehensive Pulmonary Assessment</td>
<td>2.0</td>
</tr>
<tr>
<td>RESD 61</td>
<td>Current Issues in Respiratory Care</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units** 50.0

**Special Information**

The completion of the Respiratory Therapy Program and receipt of a certificate documenting completion of required courses requires completion of the Associate degree. The student may elect to pursue either the Associate in Science or Associate 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.

#### 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.

#### Selection Procedure:

Selection for the Respiratory Therapy program is on a first-come/first-served basis. RESD prerequisites must be completed prior to entering the program.

#### A.S. degree Requirements

All students entering the Respiratory Therapy Program MUST complete all the major course requirements and the general education requirements necessary to complete the Associate degree before a certificate documenting completion in Respiratory Therapy will be given. This certificate will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

#### Other Requirements:

All students will be required to complete a background check prior to entering the clinical education phase. A physical examination, including specific immunizations, is required of all candidates prior to beginning classes. These requirements are in accordance with healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing is required as part of this physical examination. All Applicants are required to meet the Essential Functions for Success in the Respiratory Therapy Program.

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### Required courses 2nd year:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGHE 60</td>
<td>Medical Nursing and Animal Care</td>
<td>4.0</td>
</tr>
<tr>
<td>AGHE 61</td>
<td>Surgical Nursing</td>
<td>4.0</td>
</tr>
<tr>
<td>AGHE 62A</td>
<td>Clinical Pathology</td>
<td>4.0</td>
</tr>
<tr>
<td>AGHE 62B</td>
<td>Clinical Pathology</td>
<td>4.0</td>
</tr>
<tr>
<td>AGHE 64</td>
<td>Veterinary Pharmacology</td>
<td>3.0</td>
</tr>
<tr>
<td>AGHE 65</td>
<td>Veterinary Radiography</td>
<td>2.0</td>
</tr>
<tr>
<td>AGHE 79</td>
<td>Laboratory Animal Medicine and Care</td>
<td>3.0</td>
</tr>
<tr>
<td>AGHE 84A</td>
<td>Applied Animal Health Procedures</td>
<td>1.0</td>
</tr>
<tr>
<td>AGHE 84B</td>
<td>Applied Animal Health Procedures</td>
<td>1.0</td>
</tr>
<tr>
<td>AGHE 85</td>
<td>Seminar in Animal Health Technology</td>
<td>1.0</td>
</tr>
<tr>
<td>AGHE 86</td>
<td>Anatomy and Physiology of Domestic Animals</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**PLUS**

Select four (4) units of work experience:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGHE 83A</td>
<td>Work Experience in Animal Health</td>
<td>1.0</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>AGLI 12</td>
<td>Exotic Animal Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 14</td>
<td>Swine Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 16</td>
<td>Horse Production</td>
<td>4.0</td>
</tr>
<tr>
<td>AGLI 17</td>
<td>Sheep Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGLI 18</td>
<td>Horse Ranch Management</td>
<td>4.0</td>
</tr>
<tr>
<td>AGLI 19</td>
<td>Horse Hoof Care</td>
<td>2.0</td>
</tr>
<tr>
<td>AGLI 30</td>
<td>Beef Production</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>
<tr>
<td>AGPE 72</td>
<td>Feline Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGPE 73</td>
<td>Tropical and Coldwater</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>Aviculture - Cage and Aviary Birds</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Units 58.0**
Programs Leading to an Associate degree

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
- Vision: ability to see clearly 20 inches or less
- Depth perception: ability to judge distance and space relationships
- Near vision: ability to see clearly 20 inches or less
- Hearing: able to recognize a full range of tones

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

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

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.

Small Business Management
Accounting and Management Department
Major S0508
This program is intended to prepare students for employment following graduation. Students wishing a bachelor’s degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:
- BUSA 7 Principles of Accounting 5.0 CSU, UC - Financial
- BUSM 10 Principles of Continuous Quality Improvement 3.0
- BUSM 20 Principles of Business 3.0 CSU, UC
- BUSM 60 Human Relations in Business 3.0 CSU
- BUSM 61 Business Organization Management 3.0 CSU, UC
- BUSM 62 Human Resource Management 3.0
- BUSM 66 Small Business Management 3.0 CSU
- BUSS 36 Principles of Marketing 3.0 CSU
- CISB 15 Microcomputer Applications 4.0 CSU, UC

Total Units 30.0

Recommended Electives:
- BUSM 81 Work Experience in Business
- BUSM 85 Special Issues in Business
- BUSM 85 Special Issues in Marketing

Television Production
Commercial and Entertainment Arts
Major S0602
Students will gain experience in film-style production, remote and studio production. This course of study qualifies the student for an Associate 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 15 Broadcast Business Practices 3.0
- R-TV 19A Beginning Television Production 3.0 CSU
- R-TV 19B Advanced Television Production 3.0 CSU
- R-TV 100A Work Experience in Film and TV 1-3

PLUS
Select twelve (12) units from:
- R-TV 05 Audio-Video Newswriting 3.0 CSU
- R-TV 15 Television News Production 3.0
- R-TV 21 Remote Television Production and Engineering 3.5
- R-TV 22 Editing for Film and Television 3.0

Total Units 29.0

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

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 40</td>
<td>Introduction to Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 50</td>
<td>Oxyacetylene Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 51</td>
<td>Basic Electric Arc Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 53A</td>
<td>Welding Metallurgy</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 70A</td>
<td>Beginning Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 70B</td>
<td>Intermediate Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 70C</td>
<td>Certification for Welders</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 80</td>
<td>Fabrication and Construction Welding</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Units</strong></td>
<td><strong>21.0</strong></td>
</tr>
</tbody>
</table>

**Recommended Electives:**

- BUSM 61 Business Organization and Management
- EDT 11 Technical Engineering Drawing I
- MFG 70 Technical Mathematics - Manufacturing Applications
- WELD 30 Metal Sculpture
- WELD 60 Print Reading and Computations for Welders
- WELD 81 Pipe and Tube Welding
Programs Leading to an 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
- and 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 (specific area)."

Note: Students wishing to transfer to the California State University system may be required to select additional General Education courses from either the CSU General Education pattern found on page 104 of this catalog or from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 108 of this catalog.

Students wishing to transfer to the University of California system may be required to select additional General Education courses only from the Intersegmental General Education Transfer Core Curriculum (IGETC) pattern listed on page 108 of this catalog.

All students wishing to transfer are strongly advised to meet with a counselor or educational advisor to determine the most effective selection of general education courses to facilitate transfer to either the California State University system or to the University of California in specific majors.

Area of Emphasis Requirements
(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 of this degree students will be prepared for an entry level job in the business world.

Core/Required Courses
BUSC 1A Principles of Economics 3.0
or BUSC 1AH Principles of Economics 3.0
- Macroeconomics

BUSC 1B Principles of Economics 3.0
- Microeconomics

BUSC 1BH Principles of Economics 3.0
- Microeconomics - Honors

CISB 15 Microcomputer Applications 4.0
or
CISB 11 Computer Information Systems 3.5

Plus select a minimum of three courses from the following which should be selected in consultation with a counselor or educational advisor.
BUSO 25 Business Communications 3.0
BUSM 20 Principles of Business 3.0
BUSA 7 Principles of Accounting 5.0
- Financial
BUSA 8 Principles of Accounting 5.0
- Managerial
BUSL 18 Business Law 3.0

BUSC 17 Applied Business Statistics 3.0

Elective Course:
SPCH 7 Intercultural Communication 3.0

Total Units 18.5 - 23.0

for Area of Emphasis

Associate in Arts degree in Liberal Arts and Sciences
Emphasis in Business
Degree A8982
An emphasis in Business provides the student with an understanding of communication strategies, reasoning, logic, and critical analysis as it relates to public and interpersonal communication, and the interrelationship of mass media and society. In addition to the foundational Communication courses, students select either a Performance Studies or Intercultural Communications track.

Core/Required Courses (12 units)
SPCH 1A Public Speaking 3.0
or
SPCH 1AH Public Speaking - Honors 3.0

SPCH 26 Interpersonal Communication 3.0
or
SPCH 26H Interpersonal Communication - Honors 3.0

SPCH 100 Mass Media and Society 3.0
JOUR 3B Intermediate Public Speaking 3.0
or
SPCH 20 Argumentation and Debate - Honors 3.0

SPCH 20H Argumentation and Debate 3.0
SPCH 1AH Public Speaking - Honors 3.0

PLUS
Choose one (1) of the following tracks:
Performance Studies Track
(6 additional units selected from the following):
SPCH 3 Voice and Diction 3.0
SPCH 4 Oral Interpretation of Literature 3.0
SPCH 5 Readers Theater 3.0
SPCH 1B Intermediate Public Speaking (if not used as a core class) 3.0

SPCH 15 Forensics 2.0
SPCH 16A Forensics 2.0
SPCH 16B Forensics 2.0
SPCH 16C Forensics 2.0
THTR 11 Principles of Acting I 3.0
THTR 12 Principles of Acting II 3.0

Intercultural Track
(6 additional units selected from the following):
SPCH 7 Intercultural Communication 3.0
SOC 20 Sociology of Ethnic Relations 3.0
SOC 20H Sociology of Ethnic Relations - Honors 3.0
PHIL 15 Major World Religions 3.0
or
PHIL 15H Major World Religions - Honors 3.0
JOUR 107 Race, Culture, Sex and Mass Media Images 3.0
LIT 3 Multicultural American Literature 3.0
ANTH 5 Principles of Cultural Anthropology 3.0
or
ANTH 22 General Cultural Anthropology 3.0

Total Units 18.0

for Area of Emphasis

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 practices and theories of traditional and contemporary two and three-dimensional studio arts and an introduction to the history of western art. In addition to the foundational courses, students select studio electives.

Core/Required Courses (27 units)
ARTD 15A Drawing: Beginning 3.0
ARTD 15B Drawing: Life 3.0
ARTD 20 Design: Two Dimensional 3.0
ARTS 22 Design: Three-Dimensional 3.0
ARTD 25A Painting: Beginning 3.0
AHIS 4 History of Western Art: 3.0
- Prehistoric Through Gothic
or
AHIS 4H History of Western Art: 3.0
- Prehistoric Through Gothic - Honors
AHIS 5 History of Western Art: 3.0
- Renaissance Through Modern
or
Music: also strengthens the understanding of other cultures
and philosophical and political thought. This emphasis
religion, history, music, literature and the dramatic arts,

MUS 12 History of Jazz 3.0
MUS 11A Music Literature Survey 3.0

Recommended two studio electives
(6 units selected from the following):

ANIM 101 Drawing - Gesture and Figure 3.0
ARTB 14 Basic Studio Arts 3.0
ARTC 165 Illustration 3.0
ART 70 Computer Graphics: Introduction 3.0
ARD 16 Drawing: Perspective 3.0
ARD 15B Drawing: Beginning 3.0
ARD 17B Drawing: Life 3.0
ARD 21 Design: Color and Composition 3.0
ARD 27 Painting: Watercolor 3.0
ARD 43 Printmaking: Silk-screen 3.0
ARD 45 Printmaking: Relief and Intaglio 3.0
ARDT 44 Printmaking: Relief and Lithography 3.0
ARTG 20 Art, Artists and Society 3.0
ARTG 21A Introduction to Exhibition and Production 3.0
ARTS 30A Ceramics: Beginning 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 Photography and Film Photography 3.0

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

MUS 14A World Music 3.0
MUS 14B American Folk Music 3.0
MUS 15 Rock Music History and Appreciation 3.0

Music Literature Survey 3.0

Arts History:
AHIS 3 History of Women and Gender in Art 3.0
AHIS 3H History of Women and Gender in Art - Honors 3.0
AHIS 4 History of Western Art: Prehistoric Through Gothic 3.0
AHIS 4H History of Western Art: Prehistoric Through Gothic - Honors 3.0
AHIS 5 History of Western Art: Renaissance Through Modern 3.0
AHIS 5H History of Western Art: Renaissance Through Modern - Honors 3.0

Art History:
AHIS 6 History of Modern Art 3.0
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 Precolombian Art 3.0
AHIS 12H History of Precolombian Art - Honors 3.0
ARCH 31 World Architecture I 3.0
ARCH 32 World Architecture II 3.0

Philosophy and Political Science:
PHIL 12 Ethics 3.0
PHIL 12H Ethics - Honors 3.0
PHIL 20A History of Western Philosophy 3.0
PHIL 20B History of Western Philosophy 3.0
POLI 5 Introduction to Political Science 3.0

English and Dramatic Arts Literature:
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
SCHC 4 Oral Interpretation of Literature 3.0
THTR 10 History of Theater Arts 3.0

Religion and Literature:
PHIL 15 Major World Religions 3.0
PHIL 15H Major World Religions - Honors 3.0
LIT 36 Introduction to Mythology 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 3.0
HIST 4 History of World Civilization 3.0
HIST 4H History of World Civilization - Honors 3.0
HIST 10 History of Asia 3.0
HIST 11 History of Asia 3.0
HIST 16 The Wild West 3.0

FOREIGN LANGUAGES:

ARAB 2 Continuing Elementary Arabic 4.0
ARAB 3 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
JPAN 2 Continuing Elementary Japanese 4.0
JPAN 3 Intermediate Japanese 4.0
SPAN 11 Spanish for the Spanish Speaking 4.0

Programs Leading to an Associate Degree

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 selected 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 11 Secure Client Side 4.0
CISW 13 Secure Server Side 4.0
CISW 21 Web Programming 4.0
CISW 23 Web Programming 4.0

Database Technology
(4 units selected from the following):

CISD 11 Database Management 4.0
CISD 13 - Microcomputers 4.0
CISD 21 SQL Server 4.0
CISD 31 Database Management 4.0

Operating Systems and Networking
(4 units selected from the following):

CISN 13 Telecommunications/Networking 4.0
CISN 21 Windows Operating System 4.0
CISN 31 Linux Operating System 4.0

Security (4 units selected from the following):

CIS 13 Principles of Information Systems Security 4.0
CIS 15 Operating Systems Security 4.0

Total Units 21.0 - 25.0

for Area of Emphasis
Programs Leading to an Associate degree

CIS 21 Network Vulnerabilities and Countermeasures 4.0

Total Units 19.5 – 20.0

Recommended Electives:
BUSA 7 Principles of Accounting - Financial
BUSM 20 Principles of Business
BUSM 60 Human Relations in Business
BUSO 25 Business Communications
CISB 31 Microsoft Word
CISB 51 Microsoft PowerPoint
CISM 11 Systems Analysis and Design
RTV 17 Internet Radio and Podcasting
SPCH 26 Interpersonal Communication

SPCH 26H Interpersonal Communication - Honors

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 body movement. In addition to the foundational physical education and movement courses, students select courses from a scientific and nutrition and a behavioral development and diversity cluster.

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 Emergency Response
PE 13 Sports officiating 3.0
PE 17 Introduction to Physical Education 3.0
PE 19 Introduction to Care/ 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 Introduction to Human Anatomy 4.0

ANAT 10B Human Anatomy and Physiology 4.0

ANAT 36 Human Anatomy 5.0

CHEM 10 Chemistry for Allied Health Majors or

CHEM 40 Introduction to General Chemistry

MICR 1 Principles of Microbiology 5.0

MICR 22 Microbiology 4.0

PHYS 1A 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 or

NF 25 Essentials of Nutrition 3.0

Behavioral Development and Diversity
(A minimum of 3 units selected from the following):
PSYC 1A Introduction to Psychology 3.0
PSYC 26 Psychology of Sexuality 3.0
PSYC 3 Methods in Research 4.0
PSYC 17 Introduction to Human Services 3.0
PSYC 33 Psychology for Effective Living 3.0
SOC 3H Sociology - Honors 3.0
SOC 2 Sociology 3.0
SOC 2H Sociology - Honors 3.0
SOC 20 Sociology of Ethnic Relations or

SOC 20H Sociology of Ethnic Relations - Honors 3.0
COUN 2 College Success Strategies 3.0
COUN 5 Career/Life Planning 3.0

Total Units 18.0

for Area of Emphasis

Activity Courses
(A minimum of two units selected from the following):
Students who are getting an AA degree with an emphasis in Kinesiology and Wellness are required to take a minimum of two activity courses in at least two areas of physical education or dance: PE-A (Aquatics); PE-F (Fitness); PE-I (Individual Sports); PE-S (Team Sports); PE-L (Adaptive); PE-S (Team Sports); DANCE (Dance).

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

PHIL 9 Critical Thinking and Logical Writing 3.0

ENGL 81 Language Acquisition and Critical Reading 3.0
SIGN 210 American Sign Language 3.0
STUD 100 Student Achievement and Fundamentals of Learning 3.0

Languages and Diversity
(minimum 6 units selected from the following):
SPAN 1 Elementary Spanish 4.0
SPAN 2 Elementary Spanish 4.0
SPAN 3 Intermediate Spanish 4.0
SPAN 4 Continuing Intermediate Spanish 4.0
SPAN 5 Advanced Spanish 4.0
SPAN 6 Continuing Advanced Spanish 4.0
SPAN 11 Spanish for the Spanish Speaking 4.0
SPAN 12 Continuing Spanish for the Spanish Speaking 4.0
SPAN 25 Spanish Literature 3.0
SPAN 53 Conversational Spanish 3.0
SPAN 54 Conversational Spanish 3.0
FRCH 1 Elementary French 4.0
FRCH 2 Continuing Elementary French 4.0
FRCH 3 Intermediate French 4.0
FRCH 4 Continuing Intermediate French 4.0
FRCH 5 Advanced French 4.0
FRCH 6 Continuing Advanced French 4.0
FRCH 52 Conversational French 3.0
FRCH 53 Continuing Conversational French 3.0
FRCH 54 Advanced Conversational French 3.0
ITAL 1 Elementary Italian 4.0
ITAL 2 Continuing Elementary Italian 4.0
ITAL 3 Intermediate Italian 4.0
ITAL 4 Continuing Intermediate Italian 4.0
ITAL 5 Advanced Italian 4.0
ITAL 6 Continuing Advanced Italian 4.0
ITAL 52 Conversational Italian 3.0
ITAL 53 Continuing Conversational Italian 3.0
ITAL 54 Advanced Conversational Italian 3.0
GERM 1 Elementary German 4.0
GERM 2 Continuing Elementary German 4.0
GERM 3 Intermediate German 4.0
CHIN 1 Elementary Chinese 4.0
CHIN 2 Continuing Elementary Chinese 4.0
CHIN 3 Intermediate Chinese 4.0
CHIN 4 Continuing Intermediate Chinese 4.0
JAPN 1 Elementary Japanese 4.0
JAPN 2 Continuing Elementary Japanese 4.0
JAPN 3 Intermediate Japanese 4.0
JAPN 4 Continuing Intermediate Japanese 4.0
JAPN 5 Advanced Japanese 4.0
LATN 1 Elementary Latin 4.0
LATN 2 Continuing Elementary Latin 4.0
LATN 3 Intermediate Latin 4.0
LATN 4 Continuing Intermediate Latin 4.0
LATN 5 Advanced Latin 4.0
FRCH 1 Elementary Arabic 4.0
FRCH 2 Continuing Elementary Arabic 4.0
SIGN 101 American Sign Language 1.0
SIGN 102 American Sign Language 2.0
SIGN 103 American Sign Language 3.0
SIGN 104 American Sign Language 4.0
SIGN 105 American Sign Language 5.0
LIT 3 Multicultural American Literature 3.0
LIT 11 Multicultural American Literature 3.0
LIT 11B World Literature 3.0
LIT 20 African American Literature 3.0
LIT 25 Contemporary Mexican 3.0

American Literature
LIT 33 Images of Women in Literature 3.0
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 from computer science programming options.

Core/Required Courses
(minimum 18 units selected from the following with at most 2 CSCI courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 140</td>
<td>Calculus for Business</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 150</td>
<td>Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 160</td>
<td>Precalculus Mathematics</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 180</td>
<td>Calculus and Analytic Geometry</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 181</td>
<td>Calculus and Analytic Geometry</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 245</td>
<td>A Transition to Advanced Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 280</td>
<td>Calculus and Analytic Geometry</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 285</td>
<td>Linear Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

and Differential Equations

CSCI 110 Fundamentals of Computer Science 3.5
CSCI 140 C++ Language and Object Development 4.0
CSCI 145 Java Language and Object Oriented Programming 4.0

Total Units 18 Units

Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 100</td>
<td>Survey of College Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Elementary Statistics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 110H</td>
<td>Elementary Statistics - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Finite Mathematics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

and

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry I - Honors</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Engineering Physics</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>Engineering Physics</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>Engineering Physics</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Total Units 18.0 - 20.0

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Music
Degree A9990

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>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 2</td>
<td>Music Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 3A</td>
<td>Harmony</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 5A</td>
<td>Musicianship</td>
<td>1.0</td>
</tr>
</tbody>
</table>
- Ear Training and Sight Singing
| MUS 5B | Musicianship | 1.0 |
- Ear Training and Sight Singing

MUS 11A Music Literature Survey 3.0
MUS 16 Individual Instruction (every semester) 3.0
MUS 22 Conducting 1.0

Piano (2 units selected from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 17A</td>
<td>Elementary Class Piano</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 17B</td>
<td>Intermediate Class Piano</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 18</td>
<td>Advanced Class Piano</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Performance Ensemble (1-3 units selected from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 27</td>
<td>Chamber Winds</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 30</td>
<td>Collegiate Chorale</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Concert Choir</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 32</td>
<td>Masterworks Chorale</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 34</td>
<td>Women's Vocal Ensemble</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 36</td>
<td>Concert and Community Band</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 38</td>
<td>Ensemble</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 39</td>
<td>Laboratory Band</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 40</td>
<td>Pep Band</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 44</td>
<td>Vocal Jazz Ensemble</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 45</td>
<td>Chamber Singers</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 46</td>
<td>Mt. SAC Singers</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 47</td>
<td>Jazz Band</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 48</td>
<td>Men's Vocal Ensemble</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 49</td>
<td>Wind Ensemble</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Units 18.0 - 20.0

Strongly Recommended Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 11B</td>
<td>Music Literature Survey</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 16</td>
<td>Individual Instruction (every semester)</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 9</td>
<td>Introduction to Music Technology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Natural Sciences
Degree A9988

An emphasis in Natural Sciences provides the student with an understanding of living and non-living systems and promotes an appreciation of the methodologies and tools of science. Students may select courses that focus on a specific major and then select complementary courses to strengthen their selected focus or they may select courses that strengthen and broaden their overall understanding of the Natural Sciences.

Select a minimum of 18 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 5</td>
<td>Introduction to Astronomy</td>
<td>3.0</td>
</tr>
<tr>
<td>ASTR 5H</td>
<td>Introduction to Astronomy - Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>ASTR SL</td>
<td>Astronomical Observing Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>ASTR 7</td>
<td>Geology of the Solar System</td>
<td>3.0</td>
</tr>
<tr>
<td>ASTR SL</td>
<td>Astronomical Observing Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>BIOL 2</td>
<td>Plant &amp; Animal Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 3</td>
<td>Ecology and Field Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 4</td>
<td>Biology for Majors</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 4H</td>
<td>Biology for Majors - Honors</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 8</td>
<td>Cell and Molecular Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 20</td>
<td>Marine Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 21</td>
<td>Marine Biology Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>BIOL 34</td>
<td>Fundamentals of Genetics</td>
<td>3.0</td>
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<tr>
<td>BTNY 3</td>
<td>Plant Structures, Functions and Diversity</td>
<td>5.0</td>
</tr>
<tr>
<td>METO 3</td>
<td>Weather and the Atmospheric Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>METO 3L</td>
<td>Weather and the Atmospheric Environment Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>MICR 1</td>
<td>Principles of Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>MICR 22</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 50H</td>
<td>General Chemistry - Honors</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
<td>5.0</td>
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</tbody>
</table>
Programs Leading to an Associate degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 80</td>
<td>Organic Chemistry</td>
<td>4.0</td>
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<tr>
<td>CHEM 81</td>
<td>Organic Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 60</td>
<td>Quantitative Chemical Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 1</td>
<td>Elements of Physical Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 11</td>
<td>Physical Geography Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 2</td>
<td>Historical Geography</td>
<td>4.0</td>
</tr>
<tr>
<td>GEOL 8</td>
<td>Earth Science</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 8H</td>
<td>Earth Science – Honors</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 8L</td>
<td>Earth Science Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>OCEA 10L</td>
<td>Introduction to Oceanography Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>PHYS 7</td>
<td>Physical Science</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 7L</td>
<td>Physical Science Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>PHYS 2AG</td>
<td>General Physics</td>
<td>4.0</td>
</tr>
<tr>
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<td>ENGR 40</td>
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<tr>
<td>ENGR 41</td>
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<td>18.0</td>
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</table>

Associate in Arts degree in Liberal Arts and Sciences

Emphasis in Social & Behavioral Sciences Degree A8991

An emphasis in Social & Behavioral Sciences provides the student with an understanding of statistics, cultural and gender diversity, the development of the person, 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):

- ANTH 1 Biological Anthropology 3.0
- ANTH 1H Biological Anthropology - Honors 3.0
- POLI 1 Political Science 3.0
- POLI 1H Political Science - Honors 3.0
- PSYC 1 Introduction to Psychology 3.0
- PSYC 1A Introduction to Psychology - Honors 3.0
- SOC 1H Sociology - Honors 3.0
- BUSC 1A Principles of Economics 3.0
- BUSC 1AH Principles of Economics - Honors 3.0
- BUSC 1B Microeconomics 3.0
- BUSC 1BH Principles of Economics - Honors 3.0
- HIST 1 History of the United States 3.0
- HIST 7 History of the United States - Honors 3.0
- MATH 110 Elementary Statistics 3.0
- MATH 110H Elementary Statistics - Honors 3.0

Cultural & Gender Diversity

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

- ANTH 30 The Native American 3.0
- ANTH 5 Principles of Cultural Anthropology 3.0
- ANTH 22 General Cultural Anthropology 3.0
- GEOG 2 Human Geography 3.0
- GEOG 5 World Regional Geography 3.0
- GEOG 30 Geography of California 3.0
- JOUR 100 Mass Media and Society 3.0
- JOUR 107 Race, Culture, Sex, and Mass Media Images 3.0
- POLI 25 Politics of the Mexican American 3.0
- POLI 35 African American Politics 3.0
- SPCH 7 Interracial Communication 3.0
- HIST 36 Women in American History - Beyond the Stereotypes 3.0
- BIOL 15 Human Sexuality 3.0
- BIOL 15H Human Sexuality - Honors 3.0
- PSYC 25 The Psychology of Women 3.0
- PSYC 26 Psychology of Sexuality 3.0
- R-TV 01 Introduction to Broadcasting 3.0
- R-TV 1H Introduction to Broadcasting - Honors 3.0
- SOC 5 Introduction to Criminology 3.0
- SOC 14 Marriage and the Family 3.0
- SOC 20 Sociology of Ethnic Relations 3.0
- SOC 20H Sociology of Ethnic Relations - Honors 3.0

Development of the Person

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

- BIOI 3 Contemporary Health Issues 3.0
- BIOI 13 Human Reproduction, Development and Aging 3.0
- CHILD 1 Child, Family and Community 3.0
- CHILD 10H Child Growth and Development - Honors 3.0
- PSYC 14 Developmental Psychology 3.0
- PSYC 19 Abnormal Psychology 3.0
- SOC 2H Sociology - Honors 3.0
- SOC 4 Introduction to Gerontology 3.0
- SOC 15 Child Development 3.0

Biology as it Relates to Behavior or Society

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

- ANTH 1 Biological Anthropology 3.0
- ANTH 3 Archaeology 3.0
- BIOL 6 Humans and the Environment 3.0
- BIOL 17 Neurobiology and Behavior 3.0
- BIOL 34 Fundamentals of Genetics 3.0
- PSYC 18 Biological Psychology 3.0
- PSYC 17 Introduction to Human Services 3.0
- PSYC 19 Abnormal Psychology 3.0
- PSYC 33 Psychology for Effective Living 3.0
- SPCH 26 Interpersonal Communication 3.0
- SPCH 26H Interpersonal Communication - Honors 3.0
- SL 1 Service Learning/Seminar for Health Occupations 3.0
- SL 2 Linked Service Learning 3.0
- SL 3 Service Learning/Seminar in Community Involvement 3.0
- SL 4 Service Learning and Community 1.0

Other recommended electives include:

- ANTH 3 Archaeology 3.0
- BUSM 60 Human Relations in Business 3.0
- FCS 41 Life Management 3.0
- COUN 5 Career/Life Planning 3.0
- COUN 51 Career Planning 3.0
- CHILD 1 Child, Family and Community 3.0
- CHILD 73 Infant/Toddler Care and Development 3.0
- CHILD 85 Infants at Risk 3.0
- LIT 15 Introduction to Cinema 3.0
- LIT 20 African American Literature 3.0
- LIT 25 Contemporary Mexican American Literature 3.0
- LIT 3 Multicultural American Literature 3.0
- PSYC 17 Introduction to Human Services 3.0
- PSYC 19 Abnormal Psychology 3.0
- PSYC 33 Psychology for Effective Living 3.0
- SPCH 26 Interpersonal Communication - Honors 3.0
- SL 1 Service Learning/Seminar for Health Occupations 3.0
- SL 2 Linked Service Learning 3.0
- SL 3 Service Learning/Seminar in Community Involvement 3.0
- SL 4 Service Learning and Community 1.0

Total Units 18.0 - 19.0

for Area of Emphasis
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.

---

**UNIVERSITY TRANSFER MAJOR OPTIONS**

<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>Behavioral Sciences</td>
</tr>
<tr>
<td>Art History</td>
<td>Behavioral Sciences</td>
<td>Cultural Geography</td>
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<tr>
<td>Classics</td>
<td>Child Development</td>
<td>Economics</td>
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<tr>
<td>Comparative Cultures</td>
<td>Asian Studies</td>
<td>Ethnic and Area Studies</td>
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<tr>
<td>Creative Studies</td>
<td>Chicana/Chicano Studies</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>Drama/Theater Arts</td>
<td>European Studies</td>
<td>Latin American Studies</td>
</tr>
<tr>
<td>English and Literature</td>
<td>Middle Eastern Studies</td>
<td>Native American Studies</td>
</tr>
<tr>
<td>Foreign Languages and Literature</td>
<td>Third World Studies</td>
<td>History</td>
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<tr>
<td>Humanities</td>
<td>Human Development</td>
<td>Law and Society</td>
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<tr>
<td>Liberal Studies</td>
<td>Human Development</td>
<td>Legal Studies</td>
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<tr>
<td>Linguistics</td>
<td>Human Development</td>
<td>Peace and Conflict Studies</td>
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<tr>
<td>Medieval Studies</td>
<td>History</td>
<td>Political Science</td>
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<tr>
<td>Museum Studies</td>
<td>History</td>
<td>Psychology</td>
</tr>
<tr>
<td>Music</td>
<td>History</td>
<td>Social Sciences</td>
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<td>Sociology</td>
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<td>Philosophy</td>
<td>Law and Society</td>
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<td>Religious Studies</td>
<td>Legal Studies</td>
<td>Women's Studies</td>
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<td>Renaissance Studies</td>
<td>History</td>
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<td>Rhetoric</td>
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<table>
<thead>
<tr>
<th>LIFE SCIENCES</th>
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<tr>
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<td>Marine Biology</td>
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<td>Botany</td>
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<td>Ecology</td>
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<tr>
<td>Environmental Biology</td>
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<tr>
<td>Genetics</td>
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<td>Molecular Biology</td>
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<tr>
<td>Integrative Biology</td>
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<td>Molecular Biology</td>
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<td>Marine Biology</td>
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<td>Zoology</td>
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<td>Health Sciences</td>
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**UNIVERSITY TRANSFER MAJOR OPTIONS (continued)**

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<tr>
<th>PHYSICAL SCIENCES</th>
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<td>Chemistry</td>
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<td>Earth Science</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>
<td>Behavioral Sciences</td>
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<td>Physics</td>
<td>Behavioral Sciences</td>
<td>Landscape</td>
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<td>Soil/Water Sciences</td>
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**ENGINEERING & COMPUTER SCIENCE**

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<td>Aeronautics</td>
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</tr>
<tr>
<td>Bio-engineering</td>
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**Business**

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<td>Mass Communication</td>
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<td>Motion Picture – Television</td>
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<td>Public – Relations</td>
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<td>Radio – Television Services</td>
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**Services**

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<td>Counseling</td>
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<tr>
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<td>Anthropology</td>
<td>Agriculture</td>
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</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 2010-2011 California State University (CSU) undergraduate application.
### Transferring to California Colleges and Universities

#### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2010-11

The requirements listed below are for the 2010-2011 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) 594-5611, ext. 4293.

Forty-eight units of general education are required to graduate from campuses of the CSU system. A maximum of 39 units may be certified by community colleges; nine units must be taken at the upper division level. Acceptable courses are grouped in five areas, A through E. A maximum of 30 units may be certified from Areas B through D collectively. The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet General Education-Breadth Requirements will be honored if they are on the list during the year taken. The following program is structured so that a student who completes the program will be assured of properly meeting the General Education-Breadth Requirements of CSU. Area A and Mathematics must be completed with a minimum grade of “C.” Students who have attended other colleges are urged to consult with a counselor or educational advisor for advice on satisfying General Education-Breadth Requirements.

Students beginning Fall 2010 must follow 2010-2011 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.

<table>
<thead>
<tr>
<th>Area A</th>
<th>The English Language and Critical Thinking (9 units)</th>
<th>Select one course from each group:</th>
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</thead>
<tbody>
<tr>
<td>A-1: Oral Communication</td>
<td>SPCH 1A Public Speaking or SPCH 1AH Public Speaking – Honors</td>
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</tr>
<tr>
<td>A-2: Written Communication</td>
<td>ENGL 1A Freshman Composition or ENGL 1AH Freshman Composition – Honors</td>
<td></td>
</tr>
<tr>
<td>A-3: Critical Thinking</td>
<td>ENGL 1C Critical Thinking and Writing or ENGL 1CH Critical Thinking and Writing – Honors</td>
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</tr>
<tr>
<td>PHIL 3 Logic in Practice</td>
<td>PHIL 8 Critical Thinking</td>
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<tr>
<td>PHIL 9 Critical Thinking and Logical Writing</td>
<td>PSYC 5 Psychology of Reasoning and Problem Solving</td>
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<tr>
<td>SPCH 1B Intermediate Public Speaking</td>
<td>SPCH 20 Argumentation and Debate</td>
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<tr>
<td>SPCH 30H Argumentation and Debate – Honors</td>
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<table>
<thead>
<tr>
<th>Area B</th>
<th>The Physical Universe &amp; Life (9 units minimum):</th>
<th>Select one course from each group. Also, one lab (+) course must be included in one of the science groups.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-1: Physical Science</td>
<td>ASTR 5 Introduction to Astronomy</td>
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<tr>
<td>+ASTR 5L Introduction to Astronomy – Honors</td>
<td>ASTR 7 Geology of the Solar System</td>
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<tr>
<td>+ASTR 8 Introduction to Stars, Galaxies and the Universe</td>
<td>+CHEM 10 Chemistry for Allied Health Majors</td>
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<tr>
<td>+CHEM 20 Introductory Organic and Biochemistry</td>
<td>+CHEM 30 General Chemistry I</td>
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<td>+CHEM 40 Introduction to General Chemistry</td>
<td>+CHEM 50H General Chemistry I – Honors</td>
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<tr>
<td>+CHEM 51 General Chemistry II</td>
<td>GEDG 1 Elements of Physical Geography – Honors</td>
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<td>GEGG 1H Elements of Physical Geography</td>
<td>+GEDG 1L Physical Geography Laboratory</td>
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<td>+GEDG 1LH Physical Geography Laboratory – Honors</td>
<td>+GEDG 1P Physical Geology</td>
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<td>GEOL 7 Geology of California</td>
<td>GEOL 8 Earth Science</td>
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<td>GEOL 8H Earth Science – Honors</td>
<td>GEOL 9 Environmental Geology</td>
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<td>GEOL 9L Earth Science Laboratory</td>
<td>GEOL 10 Natural Disasters</td>
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<tr>
<td>METO 3 Weather and the Atmospheric Environment</td>
<td>+METO 3L Weather and Atmospheric Environment Laboratory</td>
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<td>+OCE 10 Introduction to Geology</td>
<td>+OCE 10H Introduction to Geology – Honors</td>
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<tr>
<td>+PHSC 3 Energy Science</td>
<td>+PHSC 7L Physical Science Laboratory</td>
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</tr>
<tr>
<td>+PHYS 1 Physics</td>
<td>+PHYS 2AG General Physics</td>
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<td>+PHYS 2MG General Physics</td>
<td>+PHYS 4A Engineering Physics</td>
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<tr>
<td>+PHYS 4B Engineering Physics</td>
<td>+PHYS 4C Engineering Physics</td>
<td></td>
</tr>
</tbody>
</table>

| Area C | Arts, Literature, Philosophy and Foreign Languages (9 units) | Select three courses, with at least one course from “Arts” and one course from “Humanities”.
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>C-1: Arts</td>
<td>AHS 1 Understanding the Visual Arts</td>
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<td>AHS 1H Understanding the Visual Arts – Honors</td>
<td>AHS 3 History of Women and Gender in Art</td>
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<td>AHS 3H History of Women and Gender in Art – Honors</td>
<td>AHS 4 History of Western Art: Prehistoric</td>
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<tr>
<td>AHS 4H History of Western Art: Prehistoric Through Gothic</td>
<td>AHS 5 History of Western Art: Renaissance</td>
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<td>AHS 6 History of Modern Art</td>
<td>AHS 6H History of Modern Art – Honors</td>
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<tr>
<td>AHS 9 History of Asian Art</td>
<td>AHS 10 A History of Greek and Roman Art</td>
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<tr>
<td>AHS 11 History of African, Oceanic and Native American Art</td>
<td>AHS 12 History of Pre Columbian Art</td>
<td></td>
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<tr>
<td>AHS 13H History of Pre Columbian Art – Honors</td>
<td>ART 15A Drawing: Beginning</td>
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</tr>
<tr>
<td>ART 25A Painting: Beginning</td>
<td>ART 26B Design: Two Dimensional</td>
<td></td>
</tr>
<tr>
<td>ART 26C Design: Three Dimensional</td>
<td>ART 30A Ceramics: Beginning</td>
<td></td>
</tr>
<tr>
<td>ART 30B Ceramics: Beginning</td>
<td>ART 40A Sculpture: Beginning</td>
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<tr>
<td>ART 40H History of Furniture and Decorative Arts</td>
<td>DN-T 20 History and Appreciation of Dance</td>
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</tr>
<tr>
<td>DN-W 20 World Architecture I</td>
<td>FIT 10 Survey of Shakespeare</td>
<td></td>
</tr>
<tr>
<td>FIT 11 History of Furniture and Decorative Arts</td>
<td>MUS 7 Fundamentals of Music</td>
<td></td>
</tr>
<tr>
<td>MUS 11A Music Literature Survey</td>
<td>MUS 11B Music Literature Survey</td>
<td></td>
</tr>
<tr>
<td>MUS 11C Music Literature Survey</td>
<td>MUS 12 History of Jazz</td>
<td></td>
</tr>
</tbody>
</table>
## CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2010-11

|------|----------------|------------------|--------------|--------------------|---------------|-------------------|--------------------|----------------|-------------------|-----------------|--------------|-------------|----------------|------------------------|----------------|------------------|--------------------------|------------------------------------------------|

### Area D

#### Social, Political, and Economic Institutions and Behavior

**Required Courses:** Minimum 9 units with courses from at least two disciplines (D0 – D9):

- **D-0: Sociology & Criminology**
  - **CHILD 1** Child, Family, School and Community
  - **SOC 1** Sociology
  - **SOC 1H** Sociology — Honors
  - **SOC 2** Sociology
  - **SOC 2H** Sociology — Honors
  - **SOC 4** Introduction to Gerontology
  - **SOC 5** Introduction to Criminology
  - **SOC 14** Marriage and the Family
  - **SOC 15** Child Development
  - **SOC 20** Sociology of Ethnic Relations
  - **SOC 20H** Sociology of Ethnic Relations — Honors

#### D-1: Anthropology & Archeology

- **ANTH 3** Archeology
- **ANTH 5** Principles of Cultural Anthropology
- **ANTH 22** General Cultural Anthropology
- **ANTH 30** The Native American

#### D-2: Economics

- **AGAF 1** Food Production, Land Use and Politics — A Global Perspective
- **AGFR 20** Conservation of Natural Resources
- **BUSC 1A** Principles of Economics — Macroeconomics
- **BUSC 1AH** Principles of Economics — Macroeconomics — Honors

#### D-3: Ethnic Studies

* **HIST 3** History of the United States
* **HIST 3H** History of the United States — Honors
* **HIST 4** History of World Civilization
* **HIST 4H** History of World Civilization — 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

#### D-4: Gender Studies

* **PSYC 25** The Psychology of Women

#### D-5: Geography

* **GEOG 2** Human Geography
* **GEOG 2H** Human Geography — Honors
* **GEOG 5** World Regional Geography
* **GEOG 10** The Urban World
* **GEOG 30** Geography of California

#### D-6: History

* **HIST 1** History of the United States
* **HIST 3** History of World Civilization
* **HIST 3H** History of World Civilization — Honors
* **HIST 4** History of World Civilization
* **HIST 4H** History of World Civilization — 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

#### D-7: U.S. History

* **HIST 7** History of the United States

#### D-8: World Civilizations

* **BUSC 1H** Principles of Economics — Macroeconomics

#### D-9: Social Science

* **SIGN 101** American Sign Language 1
* **SIGN 102** American Sign Language 2
* **SIGN 103** American Sign Language 3
* **SIGN 104** American Sign Language 4
* **SIGN 202** American Deaf Culture

#### D-10: Anthropology & Archeology

* **ANTH 3** Archeology
* **ANTH 5** Principles of Cultural Anthropology
* **ANTH 22** General Cultural Anthropology
* **ANTH 30** The Native American

#### CSU American Institutions & U.S. History Graduation Requirement:

**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** — **HIST 7**
    - **HIST 3** — **HIST 31**
    - **HIST 40**
    - **HIST 4H** — **HIST 8H**
    - **HIST 30** — **HIST 36**
    - **POLI 1** — **POLI 25**
    - **HIST 7** — **HIST 8**
    - **HIST 30** — **HIST 36**
    - **POLI 1H** — **POLI 35**

The two courses from Option 1 or Option 2 may be used as part of the 9 units for Area D.

**Attention:** It is recommended that you use one of the options below as part of the 9 units required in Area D.
### Californian State University General Education Requirements 2010-11

<table>
<thead>
<tr>
<th>Area A</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Mexico</td>
<td>HIST 19</td>
</tr>
<tr>
<td>History of the African American</td>
<td>HIST 30</td>
</tr>
<tr>
<td>History of Africa</td>
<td>HIST 35</td>
</tr>
<tr>
<td>Women in American History – Beyond the Stereotypes</td>
<td>HIST 36</td>
</tr>
<tr>
<td>California History</td>
<td>HIST 39</td>
</tr>
<tr>
<td>History of the Mexican American</td>
<td>HIST 40</td>
</tr>
<tr>
<td>History of Native Americans</td>
<td>HIST 44</td>
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</table>

<table>
<thead>
<tr>
<th>D-7: Interdisciplinary Social or Behavioral</th>
<th>Courses</th>
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</thead>
<tbody>
<tr>
<td>Child Growth and Development</td>
<td>CHLD 10</td>
</tr>
<tr>
<td>Child Growth and Development – Honors</td>
<td>CHLD 10H</td>
</tr>
<tr>
<td>Intercultural Communication</td>
<td>SPCH 7</td>
</tr>
<tr>
<td>Intercultural Communication – Honors</td>
<td>SPCH 7H</td>
</tr>
<tr>
<td>Interpersonal Communication</td>
<td>SPCH 26</td>
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<tr>
<td>Interpersonal Communication – Honors</td>
<td>SPCH 26H</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>D-8: Political Science, Government, and Legal Institutions</th>
<th>Courses</th>
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</thead>
<tbody>
<tr>
<td>Political Science</td>
<td>POLI 1</td>
</tr>
<tr>
<td>Political Science – Honors</td>
<td>POLI 1H</td>
</tr>
<tr>
<td>Political Science Theory – Ancient to Modern</td>
<td>POLI 2</td>
</tr>
<tr>
<td>Political Theory – Early Modern to Contemporary</td>
<td>POLI 3</td>
</tr>
<tr>
<td>Introduction to International Relations</td>
<td>POLI 4</td>
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<tr>
<td>Environmental Politics</td>
<td>POLI 5</td>
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<tr>
<td>Politics of the Mexican American</td>
<td>POLI 25</td>
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<tr>
<td>African American Politics</td>
<td>POLI 35</td>
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<table>
<thead>
<tr>
<th>D-9: Psychology</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Introduction to Psychology</td>
<td>PSYC 1A</td>
</tr>
<tr>
<td>Introduction to Psychology – Honors</td>
<td>PSYC 1AH</td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>PSYC 14</td>
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<tr>
<td>Abnormal Psychology</td>
<td>PSYC 19</td>
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<tr>
<td>The Psychology of Women</td>
<td>PSYC 25</td>
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<table>
<thead>
<tr>
<th>Area E</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Lifelong Understanding &amp; Self Development (3 units)</td>
<td>COUN 5</td>
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<tr>
<td>Select at least one course.</td>
<td>FCS 41</td>
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<tr>
<td>Career/Life Planning</td>
<td>LEAD 55</td>
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<tr>
<td>Exploring Leadership</td>
<td>NF 10</td>
</tr>
<tr>
<td>Nutrition for Personal Health and Wellness</td>
<td>NF 25</td>
</tr>
<tr>
<td>Essentials of Nutrition</td>
<td>NF 25H</td>
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<tr>
<td>Essentials of Nutrition – Honors</td>
<td>NF 28</td>
</tr>
<tr>
<td>Cultural and Ethnic Foods</td>
<td>PE 34</td>
</tr>
<tr>
<td>Fitness for Living</td>
<td>PSIC 14</td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>PSIC 25</td>
</tr>
<tr>
<td>The Psychology of Women</td>
<td>PSIC 26</td>
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<tr>
<td>Psychology of Sexuality</td>
<td>PSIC 33</td>
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<td>Psychology for Effective Living</td>
<td>SOC 15</td>
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<tr>
<td>Child Development</td>
<td>*SPCH 26</td>
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<tr>
<td>Interpersonal Communication</td>
<td>*SPCH 26H</td>
</tr>
<tr>
<td>Interpersonal Communication – Honors</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:****

1. Upper division transfer students (60-70 semester baccalaureate units), will need to have at least 30 semester units of general education. Within those 30 units, Area A (9) semester units and Mathematics (3) semester units must be completed with grades of “C” or better.

2. CSULA transfer students are advised to complete ENGL 1C or ENGL 1CH as part of the Area A requirements. CSULA requires completion of ENGL 102 (ENGL 1C or 1CH) as a prerequisite to UNIV 400 (Writing Proficiency Examination).

3. Courses on this list have been approved by the CSU Office of the Chancellor for Fall 2010 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.
### Transferring to California Colleges and Universities

**INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) 2010-11**

The requirements listed below are for the 2010-2011 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) 594-5611, ext. 4293.

### Completion of the IGETC

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 2010 must follow 2010-2011 IGETC requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy of the Counseling Center.

<table>
<thead>
<tr>
<th>Area 1</th>
<th>English Communication</th>
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</thead>
<tbody>
<tr>
<td>Group A: English Composition</td>
<td>Select one course from each group:</td>
</tr>
<tr>
<td>ENGL 1A Freshman Composition</td>
<td>or</td>
</tr>
<tr>
<td>ENGL 1AH Freshman Composition – Honors</td>
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</tr>
<tr>
<td>Group B: Critical Thinking – Composition</td>
<td>Select one course from each group:</td>
</tr>
<tr>
<td>ENGL 1C Critical Thinking and Writing</td>
<td>or</td>
</tr>
<tr>
<td>ENGL 1CH Critical Thinking and Writing – Honors</td>
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<tr>
<th>Area 2</th>
<th>Mathematical Concepts and Quantitative Reasoning</th>
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</thead>
<tbody>
<tr>
<td>Select one course from:</td>
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<tr>
<td>MATH 110 Elementary Statistics</td>
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<td>MATH 110H Elementary Statistics – Honors</td>
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<tr>
<td>MATH 120 Finite Mathematics</td>
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<tr>
<td>MATH 130 College Algebra</td>
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<tr>
<td>MATH 140 Calculus for Business</td>
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<tr>
<td>MATH 160 Precalculus Mathematics</td>
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<tr>
<td>MATH 180 Calculus and Analytic Geometry</td>
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<tr>
<td>MATH 181 Calculus and Analytic Geometry</td>
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<tr>
<td>MATH 280 Calculus and Analytic Geometry</td>
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</tr>
<tr>
<td>MATH 285 Linear Algebra and Differential Equations</td>
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<tr>
<td>PSYC 10 Statistics for the Behavioral Sciences</td>
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<table>
<thead>
<tr>
<th>Area 3</th>
<th>Arts and Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select three courses minimum, at least one course from the Arts group and one course from the Humanities group:</td>
<td></td>
</tr>
</tbody>
</table>

#### Arts Courses:

- **AHIS 1** Understanding the Visual Arts, or
- **ARTB 1** Understanding the Visual Arts
- **AHS 3** History of Women and Gender in Art
- **AHS 3H** History of Women and Gender in Art – Honors
- **AHS 4** History of Western Art: Prehistoric through Gothic
- **MATH 110 Elementary Statistics**
- **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**
- **MUS 15** Rock Music History and Appreciation
- **THTR 10** History of Theater Arts

#### Humanities Courses:

- **CHIN 3** Intermediate Chinese
- **CHIN 4** Continuing Intermediate Chinese
- **ENGL 1B** English – Introduction to Literary Types
- **ENGL 1BH** English – Introduction to Literary Types – Honors
- **FRC 3** Intermediate French
- **FRC 4** Continuing Intermediate French
- **FRC 5** Advanced French
- **FRC 6** Continuing Advanced French
- **FRC 60** French Culture through Cinema
- **GERM 3** Intermediate German
- **HIST 1** History of the United States
- **HIST 3** History of World Civilization
- **HIST 3H** History of World Civilization – Honors
- **HIST 4** History of World Civilization
- **HIST 4H** History of World Civilization – Honors
- **HIST 5** History of the United States
- **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 – Beyond the Stereotypes
- **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
- **LIT 11B** World Literature
- **LIT 14** Introduction to Modern Poetry
- **LIT 15** Introduction to Cinema
- **LIT 20** African American Literature
- **LIT 25** Contemporary Mexican-American Literature
- **LIT 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
- **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
<table>
<thead>
<tr>
<th>Area 4</th>
<th>Physical and Biological Sciences</th>
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<tbody>
<tr>
<td></td>
<td>Select two courses, one physical and one biological science, at least one must include a laboratory. Laboratory must be a corresponding section to the lecture course taken. Laboratory courses are underlined.</td>
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<tr>
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<td>Physical Science:</td>
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<td></td>
<td>ASTR 5 Introduction to Astronomy</td>
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<td>ASTR 5H Introduction to Astronomy – Honors</td>
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<td>ASTR 5L Astronomical Observing Laboratory</td>
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<td>ASTR 7 Geology of the Solar System</td>
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<td>ASTR 8 Introduction to Stars, Galaxies, and the Universe</td>
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<td>CHEM 10 Chemistry for Allied Health Majors</td>
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<td>CHEM 20 Introductory Organic and Biochemistry</td>
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<td>CHEM 40 Introduction to General Chemistry</td>
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<td>CHEM 50 General Chemistry I</td>
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<td>CHEM 51 General Chemistry II</td>
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<td>GEOG 1 Elements of Physical Geography</td>
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<td>GEOG 1H Elements of Physical Geography – Honors</td>
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<td>GEOG 1L Physical Geography Laboratory</td>
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<td>GEOG 1LH Physical Geography Laboratory – Honors</td>
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<td>GEOG 1S Introduction to Oceanography Laboratory</td>
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<td></td>
<td>GEOG 1SH Introduction to Oceanography Laboratory – Honors</td>
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<td>GEOL 1 Physical Geology</td>
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<td>GEOL 6 Earth Science</td>
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<td>GEOL 8 Earth Science Laboratory</td>
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<td>GEOL 9 Environmental Geology</td>
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<td>GEOL 13 Evolution of the Earth</td>
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<td>OCEA 10 Introduction to Oceanography</td>
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<td>PHSC 3 Energy Science</td>
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<table>
<thead>
<tr>
<th>Area 5</th>
<th>Social and Behavioral Sciences</th>
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<tbody>
<tr>
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<td>Select three courses total from a minimum of two different subject areas:</td>
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<tr>
<td></td>
<td>ANTH 3 Archaeology</td>
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<tr>
<td></td>
<td>ANTH 5 Principles of Cultural Anthropology, or</td>
</tr>
<tr>
<td></td>
<td>ANTH 22 General Cultural Anthropology</td>
</tr>
<tr>
<td></td>
<td>BUSC 1A Principles of Economics: Macroeconomics</td>
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<tr>
<td></td>
<td>BUSC 1AH Principles of Economics: Macroeconomics – Honors</td>
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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
- Antioch University Los Angeles
- Art Center College of Design
- Azusa Pacific University
- Biola University
- California Baptist University
- California College of the Arts
- California Institute of Technology (Cal Tech)
- California Institute of the Arts
- California Lutheran University
- Chapman University
- Charles R. Drew University of Medicine and Science
- Claremont Graduate University
- Claremont McKenna College
- Cogswell Polytechnical College
- Concordia University
- DeVRY Institute of Technology
- Dominican University of California
- Fielding Graduate University
- Fresno Pacific University
- Golden Gate University
- Harvey Mudd College
- Holy Names College
- Hope International University
- Humphreys College
- John F. Kennedy University
- Keck Graduate Institute
- La Sierra University
- Laguna College of Art and Design
- Loma Linda University
- Loyola Marymount University
- Marymount College
- The Master’s College
- Menlo College
- Mills College
- Monterey Institute of International Studies
- Mount St. Mary’s College
- National University
- Notre Dame de Namur University
- Occidental College
- Otis College of Art and Design
- Pacific Graduate School of Psychology
- Pacific Oaks College
- Pacific Union College
- Patten College
- Pepperdine University
- Phillips Graduate Institute
- Pitzer College
- Point Loma Nazarene University
- Pomona College
- Saint Mary’s College of California
- Samuel Merritt College
- San Diego Christian College
- San Francisco Conservatory of Music
- Santa Clara University
- Saybrook Graduate School and Research Center
- Scripps College
- Simpson University
- Soka University of America
- Southern California University of Health Sciences
- Stanford University
- Thomas Aquinas College
- Touro University California
- University of Judaism
- University of La Verne
- University of Redlands
- University of San Diego
- University of San Francisco
- University of Southern California
- University of the Pacific
- Vanguard University of Southern California
- Western University of Health Sciences
- Westmont College
- Whittier College
- William Jessup University
- Woodbury University

For more information on California Independent Colleges and Universities see an educational advisor or counselor in the Counseling Center. You may also obtain information from the aiccu.edu.
Course Descriptions

DEFINITIONS OF TERMS

CSU Transfer
Courses designated “CSU” are baccalaureate level and will transfer to all of the California State Universities and count toward graduation at Mt. San Antonio College.

CSU/UC Cross Enrollment Program
California residents students at Mt. San Antonio College may enroll in one undergraduate course per term at any CSU or UC campus provided the student has met the course prerequisites and approval is granted by both Mt. SAC and the university. To cross-enroll, students must: have completed at least one term at Mt. SAC; have a 2.0 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.

Prerequisite
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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<tr>
<td>SL</td>
<td>Service Learning</td>
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<tr>
<td>SIGN</td>
<td>Sign Language &amp; Interpreting</td>
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<tr>
<td>SOC</td>
<td>Sociology</td>
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<tr>
<td>SPAN</td>
<td>Spanish</td>
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<td>SPCH</td>
<td>Speech</td>
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<tr>
<td>STDY</td>
<td>Study Techniques</td>
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<tr>
<td>SURV</td>
<td>Surveying</td>
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<tr>
<td>TECH</td>
<td>Technology &amp; Related Courses</td>
</tr>
<tr>
<td>THTR</td>
<td>Theater Arts</td>
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<td>TRAN</td>
<td>Transportation</td>
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<td>TURF</td>
<td>Turf Training</td>
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<tr>
<td>WATR</td>
<td>Water Technology</td>
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<td>WELD</td>
<td>Welding</td>
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</table>
## ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 1</td>
<td>The Administration of Justice System</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.</td>
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<tr>
<td>ADJU 2</td>
<td>Principles and Procedures of the Justice System</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>ADJU 3</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Provides an overview of California criminal law from the perspective of the law enforcement officer.</td>
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<tr>
<td>ADJU 4</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Introduction to criminal evidence, including admissibility, witness competency, privileged communication, hearsay, and collection and preservation of evidence.</td>
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<tr>
<td>ADJU 5</td>
<td>Community Relations</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Eligibility for English 68</td>
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<tr>
<td></td>
<td>Community problems and policing. Focus on service image, diversity, human relations, crises and confrontations with the public.</td>
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<tr>
<td>ADJU 6</td>
<td>Concepts of Enforcement Services</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.</td>
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<tr>
<td>ADJU 7</td>
<td>Concepts of Traffic Services</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ADJU 8</td>
<td>Traffic Control</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>A basic study of weather elements, the atmosphere, weather mechanics, weather disturbances, weather analysis and forecasts. Evaluation of aviation weather reports and forecasts.</td>
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</tbody>
</table>

## AERONAUTICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 23</td>
<td>Primary Pilot Ground School</td>
<td>4</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>72 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>AERO 24</td>
<td>Navigation</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Advisories: AERO 23</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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<tr>
<td>AERO 25</td>
<td>Commercial Pilot Ground School</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Advisories: AERO 23</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>AERO 26</td>
<td>Aviation Weather</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Advisories: AERO 23</td>
<td></td>
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<tr>
<td></td>
<td>A basic study of weather elements, the atmosphere, weather mechanics, weather disturbances, weather analysis and forecasts. Evaluation of aviation weather reports and forecasts.</td>
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<tr>
<td>AERO 27</td>
<td>Aviation Safety and Human Factors</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Advisories: AERO 23</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>AERO 28</td>
<td>Aircraft and Engines</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Advisories: AERO 23</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>AERO 29</td>
<td>Federal Aviation Regulations</td>
<td>2</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Advisories: AERO 23</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>
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
(May be taken for Pass/No Pass only)
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  1 Unit
Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
54 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 certified flight instructor. Students must complete a minimum of 15 hours of flight time, including three hours of dual instruction. Students who repeat this course will improve skills through further instruction and practice.

AERO 41 — Basic Flight Simulator Laboratory  0.5 Unit
Degree Applicable
(May be taken for Pass/No Pass only)
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 ADI orientation, and instrument approach procedures.

AERO 42 — Advanced Flight Simulator Laboratory  0.5 Unit
Degree Applicable
(May be taken for Pass/No Pass only)
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 86 and formal admittance to the Registered Veterinary Technology Program
Surgical preparation, surgical assistance, post-operative care, administer and monitor anesthesia, dentistry, CPR, sterilization and the maintenance of a sterile environment.
<table>
<thead>
<tr>
<th>Course Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGHE 83A</strong> — <strong>Work Experience in Animal Health</strong> 1 to 2 Units</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>AGHE 84A</strong> — <strong>Applied Animal Health Procedures</strong> 1 Unit</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>Fall field study course in the collection, handling, and analysis of feces, urine, and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.</td>
</tr>
<tr>
<td><strong>AGHE 84B</strong> — <strong>Applied Animal Health Procedures</strong> 1 Unit</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>AGHE 85</strong> — <strong>Seminar in Registered Veterinary Technology</strong> 1 Unit</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>18 hours lecture</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>AGHE 86</strong> — <strong>Anatomy and Physiology of Domestic Animals</strong> 4 Units</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>54 hours lecture</td>
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<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>AGFS 20</strong> — <strong>Conservation of Natural Resources</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68. Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, and conservation organizations. Emphasis on temperate forest, tropical forest, desert, and grassland ecosystems.</td>
</tr>
<tr>
<td><strong>AGVC 20</strong> — <strong>Vet Tech Certification</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Completion of AGHE 86, AGHE 82, AGHE 88, AGHE 84A, AGHE 84B, AGHE 85, AGHE 87, AGHE 89, AGHE 90. Group study course designed to prepare students for the North American Veterinary Technology Association (NAVTA) Certification Examination. Includes review of previously covered material and preparation for test-taking strategies. Course includes computer simulations and actual test tests with immediate feedback.</td>
</tr>
</tbody>
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**AGRICULTURE: ANIMAL SCIENCE GENERAL**

<table>
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<tr>
<th>Course Descriptions</th>
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<tbody>
<tr>
<td><strong>AGAN 1</strong> — <strong>Animal Science</strong> 3 Units</td>
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<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Prerequisite: Completion of the Registered Veterinary Technology program. A survey course 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.</td>
</tr>
<tr>
<td><strong>AGAN 2</strong> — <strong>Animal Nutrition</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.</td>
</tr>
<tr>
<td><strong>AGAN 51</strong> — <strong>Animal Handling and Restraint</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
<tr>
<td>54 hours lab</td>
</tr>
<tr>
<td>Methods of proper handling for large and small animals, including chemical and physical techniques of restraint.</td>
</tr>
<tr>
<td><strong>AGAN 94</strong> — <strong>Animal Breeding</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

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**AGRICULTURE: GENERAL SUBJECTS**

<table>
<thead>
<tr>
<th>Course Descriptions</th>
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</thead>
<tbody>
<tr>
<td><strong>AGAG 59</strong> — <strong>Work Experience in Agriculture</strong> 1 to 4 Units</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>(May be taken four times for credit)</td>
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<tr>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>75 to 300 hours lab</td>
</tr>
<tr>
<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. This course is designed to provide Animal Science 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.</td>
</tr>
<tr>
<td><strong>AGAG 90</strong> — <strong>Special Projects in Agriculture</strong> 2 Units</td>
</tr>
<tr>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>36 hours lecture</td>
</tr>
<tr>
<td>In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. 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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**AGRICULTURE: LIVESTOCK PRODUCTION**

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<thead>
<tr>
<th>Course Descriptions</th>
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</thead>
<tbody>
<tr>
<td><strong>AGLI 12</strong> — <strong>Exotic Animal Management</strong> 3 Units</td>
</tr>
<tr>
<td>Degree Applicable</td>
</tr>
<tr>
<td>54 hours lecture</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>
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 14 — Swine Production 3 Units
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 4 Units
54 hours lecture
54 hours lab
Skills and knowledge to work on or manage a modern equine ranch, including management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes experience in the care of horse and tack.

AGLI 17 — Sheep Production 3 Units
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 4 Units
54 hours lecture
54 hours lab
Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes experience in the care of horse and tack.

AGLI 19 — Horse Hoof Care 2 Units
18 hours lecture
54 hours lab
Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

AGLI 20 — Horse Behavior and Training 2 Units
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 30 — Beef Production 3 Units
36 hours lecture
54 hours lab
Principles and practices in the selection and management of feeder, market, and breeding beef cattle. Economics of production, retail product, utilization of farm-grown feeds, and feedlot operation.

AGLI 34 — Livestock Judging and Selection 2 Units
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 96 — Animal Sanitation and Disease Control 3 Units
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 97 — Artificial Insemination of Livestock 2 Units
54 hours lab
Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization, and pregnancy diagnosis.

AGRI CULTURE: ORNAMENTAL HORTICULTURE

AGOR 1 — Horticultural Science 3 Units
54 hours lecture
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.

AGOR 2 — Plant Propagation/Greenhouse Management 3 Units
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 sporing and division. Stresses greenhouses and other environmental structures for plant propagation and production.

AGOR 4 — Park Management 3 Units
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 3 Units
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 3 Units
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.

AGOR 15 — Interior Landscaping 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
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 3 Units
36 hours lecture
54 hours lab
Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses use, safety, equipment, laws, and regulations of pesticides.

AGOR 29 — Ornamental Plants: Herbaceous 3 Units
Degree Applicable, CSU, UC
36 hours lecture
54 hours lab
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 Nurserymen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.
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 Nurseriesmen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.

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 their interactions; irrigation; mechanization; financing; personnel management; retail displays, advertising and customer relationships; federal, state and local laws and regulations. Field trips are included.

AGOR 39 — Turf Grass Production and Management 3 Units
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 40 — Sports Turf Management 3 Units
Degree Applicable
(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 50 — 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 are included.

AGOR 51 — Tractor and Landscape Equipment Operations 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisites: AGOR 32
Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skip loader, skid steer loader, backhoe, lawn mowers, edges, weed eaters, blowers/vacuum, rototillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on application of this equipment.

AGOR 52 — Hydraulics 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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 53 — Small Engine Repair I 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 54 — Small Engine Repair II 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 55 — Diesel Engine Repair 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
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 are included.

AGOR 56 — Engine Diagnostics 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 62 — Landscape Irrigation - Design and Installation 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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 63 — Landscape Irrigation Systems Management 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 65 — Advanced Small Engine Repair 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 66 — Landscape Irrigation Systems Management 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 70 — Agricultural Labor 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 71 — Advanced Diesel Engine Repair 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.

AGOR 73 — Agricultural Labor 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
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 engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.
Course Descriptions

AGOR 64 — Landscape Irrigation - Drip and Low Volume 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Conservation of water in the landscape by utilization of drip and low-flow irrigation systems. Design, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.

AGOR 71 — Landscape Construction Fundamentals 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Fundamentals of construction techniques and tools used in landscaping. Students will gain hands-on experience in design and installation techniques.

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, walls, 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
Landscape laws, contracting, and estimating as they pertain to landscape construction. Information covered will be helpful for the Landscape Contractor’s (C-27 classification) licensing exam administered by the state of California. Off campus assignments required.

AGOR 74 — Reptile Management 2 Units
Degree Applicable
54 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, chainsaws, 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
Advisory: Eligibility for ENGL 68
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.

AGOR 77 — Tropical and Coldwater Fish Management 2 Units
Degree Applicable
54 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.

AGOR 91 — Work Experience in Nursery Operations 1 to 4 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
75 to 300 hours lab
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.

AGPE 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.

AGPE 71 — Canine Management 3 Units
Degree Applicable, CSU
36 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.

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.
### 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>AIRC 12</td>
<td>Air Conditioning Codes and Standards</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 20</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 25</td>
<td>Electrical Fundamentals for Air Conditioning and Refrigeration</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 26A</td>
<td>Heat Pump Fundamentals</td>
<td>1.5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 26B</td>
<td>Gas Heating Fundamentals</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 30</td>
<td>Heat Load Calculations</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 31</td>
<td>Commercial Electrical for Air Conditioning and Refrigeration</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 32A</td>
<td>Air Properties and Measurement</td>
<td>1.5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 32B</td>
<td>Air Distribution Systems</td>
<td>1.5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 33</td>
<td>Advanced Mechanical Refrigeration</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 34</td>
<td>Advanced Mechanical Refrigeration</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 35</td>
<td>Pneumatic Controls</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>AIRC 36</td>
<td>Building Automation Systems</td>
<td>4</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

#### AIRC 12 — Air Conditioning Codes and Standards
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.

#### AIRC 20 — Refrigeration Fundamentals
36 hours lecture
Principles of mechanical refrigeration based on the refrigeration cycle and associated mechanical components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydoration techniques, and the safe handling and containment of refrigerants.

#### AIRC 25 — Electrical Fundamentals for Air Conditioning and Refrigeration
54 hours lecture
Electrical principles and practices used in air conditioning and refrigeration as applied to the design of building electrical systems including power supplies, motors, and controls. Develops skills for designing electrical circuits, and electrical troubleshooting.

#### AIRC 26A — Heat Pump Fundamentals
27 hours lecture
Theory, operation, and application of heat pump systems used in residential and light commercial heating installations including the heat pump refrigeration cycle, reversing valves, defrost methods, supplemental heat, balance point, air flow, and heat pump thermostats.

#### AIRC 26B — Gas Heating Fundamentals
36 hours lecture
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
54 hours lecture
Heat load factors and charts will be explored, developed and applied to the heat loss and gain of a residential, refrigeration and commercial building.

#### AIRC 31 — Commercial Electrical for Air Conditioning and Refrigeration
54 hours lecture
54 hours lab
Principles of mechanical refrigeration 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
27 hours lecture
27 hours lab
Advisory: AIRC 20, AIRC 30 taken prior
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 32B — Air Distribution Systems
27 hours lecture
27 hours lab
Advisory: AIRC 20, AIRC 30, AIRC 32A taken prior
Designed as a continuation of AIRC 32A and explores airside equipment and duct design applied to built-up and unitary air distribution systems.

#### AIRC 33 — Advanced Mechanical Refrigeration
54 hours lecture
54 hours lab
Advisory: AIRC 31, AIRC 32A, AIRC 32B taken prior
Advanced principles of mechanical air conditioning and refrigeration based on operating characteristics of working equipment and the interpretation of the pressure-enthalpy chart. Advanced technical aspects of mechanical components will be explored to include compressors, metering devices, pressure regulators, capacity controls, and defrost methods.

#### AIRC 34 — Pneumatic Controls
27 hours lecture
27 hours lab
Advisory: AIRC 20 taken prior
Pneumatic controls including thermostats, valves, receiver controllers and dampers applied to various commercial air conditioning and refrigeration systems.

#### AIRC 35 — Building Automation Systems
54 hours lecture
54 hours lab
Advisory: AIRC 32A, AIRC 32B taken prior
Principles of building automation systems applied to air conditioning systems, chiller plant operation, and air distribution. Includes the application of variable air volume, constant air systems, multizone systems and controlled devices used in automated air conditioning systems. Emphasis on programming strategies applied to mechanical trainers.

#### AIRC 61 — Building Automation Fundamentals
36 hours lecture
27 hours lab
Advisory: AIRC 32A, AIRC 32B taken prior
Basics of commercial HVAC control theory as it applies to electric, pneumatic, and digital control systems. Principles of chilled plant operation, air distribution, Variable Air Volume, constant air systems, and multizone systems.

#### AIRC 63 — Building Control Networks
54 hours lecture
54 hours lab
Advanced principles of mechanical air conditioning and refrigeration based on operating characteristics of working equipment and the interpretation of the pressure-enthalpy chart. Advanced technical aspects of mechanical components will be explored to include compressors, metering devices, pressure regulators, capacity controls, and defrost methods.

#### AIRC 64 — Building Automation Systems
54 hours lecture
54 hours lab
Advisory: AIRC 32A, AIRC 32B taken prior
Principles of building automation systems applied to air conditioning systems, chiller plant operation, and air distribution. Includes the application of variable air volume, constant air systems, multizone systems and controlled devices used in automated air conditioning systems. Emphasis on programming strategies applied to mechanical trainers.

#### AIRC 65 — Building Automation Networks and Programming
108 hours lab
Advisory: AIRC 32A, AIRC 32B taken prior
Building Control Network implementations and protocol standards including web based applications, BACnet, Ethernet, LonTalk, and proprietary systems. Routers, installation, and troubleshooting will also be studied.

#### AIRC 66 — Building Automation Network Programming
18 hours lecture
108 hours lab
Programming HVAC direct digital controllers using line (text) programming, icon based programming, and template programming. Stresses good programming practices including complete program documentation.

#### AIRC 67 — Energy Management
72 hours lecture
Advisory: AIRC 32A, AIRC 32B taken prior
Recognition of distinctive identification features of operational aircraft

Advisory: AERO 23

36 hours lecture

Aircraft recognition and performance

Advisory: AERO 23

Recognition of distinctive identification features of operational aircraft and their performance characteristics. Classification of aircraft by Federal Aviation Administration designations.

AIRT 42 — Air Traffic Control Environment

3 units Degree Applicable, CSU

54 hours lecture

Advisory: AERO 22 and TRAN 17

Air traffic operation in the National Airspace System. Control tower operations, terminal and enroute radar control. Coordination and control within an ATC team environment. Radio communication techniques and phraseology. Non-radar control and separation procedures.

AIRT 43 — Air Traffic Control Team Skills

1.5 units Degree Applicable, CSU

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 45 — Flight Services

3 units Degree Applicable, CSU

54 hours lecture

Advisory: AERO 22, AERO 29

Air traffic control procedures utilized by Flight Services in providing flight assistance and communication services. Air traffic pilot briefings, emergency procedures, flight handling, search and rescue, and introduction to data transmission procedures and services.

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 22, 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 51 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.

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.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>AIRM 71</td>
<td>Aviation Maintenance Science</td>
<td>6</td>
<td>108 hours lecture. Federal aviation regulations, interpretation of aircraft drawings, basic physics, technical mathematics, and aircraft weight and balance computations. FAI approved course required of all aircraft powerplant and airframe maintenance technology majors.</td>
</tr>
<tr>
<td>AIRM 72</td>
<td>Aviation Materials and Processes</td>
<td>1.5</td>
<td>18 hours lecture. 36 hours lab. An FAA approved course covering aviation materials, non-destructive testing, basic heat-treating and an introduction to machine tool operation.</td>
</tr>
<tr>
<td>AIRM 73</td>
<td>Aviation Welding</td>
<td>1.5</td>
<td>18 hours lecture. 36 hours lab. Advisory: AIRM 70B, AIRM 72 (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.</td>
</tr>
<tr>
<td>AIRM 74</td>
<td>Aircraft Maintenance Technology -</td>
<td>2</td>
<td>90 hours lab. 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.</td>
</tr>
<tr>
<td>AIRM 80</td>
<td>Lab Studies in Aircraft Maintenance</td>
<td>.5 to 1</td>
<td>(May be taken for Pass/No Pass only). 27 to 54 hours lab. Advisory: AIRM 65 A/B, or AIRM 66 A/B, or AIRM 90-93 A/B, or AIRM 95-98 A/B, or equivalent. Additional lab instruction for students needing FAA required hours to complete a training certificate or required remediation of program modules or completion of laboratory assignments. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>AIRM 90A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. A FAA approved course covering aircraft flight, flight control and construction procedures.</td>
</tr>
<tr>
<td>AIRM 90B</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft structural designs, station numbers, aviation nomenclature and definitions. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 91A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft wood structures, their coverings and finishes. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 91B</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 92A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft hydraulic and pneumatic power systems, landing gear and wheel and brake systems. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 92B</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft warning systems, aircraft instrument systems and aircraft fuel storage and transfer systems. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 93A</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft warning systems. Aircraft instrument systems and aircraft fuel storage and transfer systems. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 93B</td>
<td>Airframe Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 95A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</td>
</tr>
<tr>
<td>AIRM 95B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 96A</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</td>
</tr>
<tr>
<td>AIRM 96B</td>
<td>Aircraft Powerplant Maintenance Technology</td>
<td>3</td>
<td>36 hours lecture. 72 hours lab. Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73. Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.</td>
</tr>
</tbody>
</table>
AD 1 — Alcohol/Drug Dependency 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73  
Examines the history, law, and psychology of domestic violence;  
private and public level. Appraises personal attitudes, past and present,  
and their influence on societal norms. Examines prevention  
programs and the essentials of effective  
recovery.

AD 2 — Physiological Effects of Alcohol/Drugs 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Examines in-depth the physiological effect of alcohol and other drugs  
on the human body. Includes aspects of tolerance, habituation, cross  
tolerance and synergistic effect.

AD 3 — Chemical Dependency: Intervention, Treatment and Recovery 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Examines and analyzes the tools and techniques necessary in moving  
the chemically dependent individual into the treatment process; the  
varying types of treatment programs, and the essentials of effective  
recovery.

AD 4 — Issues in Domestic Violence 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Examines the history, law and psychology of domestic violence;  
cultural/social aspects; relationship to substance abuse.

AD 5 — Chemical Dependency: Prevention and Education 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Reviews and examines drug prevention effectiveness, at both the  
private and public level. Appraises personal attitudes, past and present,  
and their influence on societal norms. Examines current prevention  
programs and the necessary steps for developing, funding and  
managing a program.

AD 6 — Dual Diagnosis 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Overview of the complex interactions of mental disorders and chemical  
dependency. Reviews examines key areas involving dual  
diagnosis: definition, diagnosis, treatment and aftercare.

AD 8 — Group Process and Leadership 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73  
Examines and analyzes tools and techniques necessary in moving  
the chemically dependent individual into the treatment process; the  
varying types of treatment programs, and the essentials of effective  
recovery.

AD 9 — Family Counseling 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73  
Examines in-depth the physiological effect of alcohol and other drugs  
on the human body. Includes aspects of tolerance, habituation, cross  
tolerance and synergistic effect.

AD 10 — Client Record and Documentation 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73  
Examines the tools and techniques necessary in moving  
the chemically dependent individual into the treatment process; the  
varying types of treatment programs, and the essentials of effective  
recovery.

AD 11 — Techniques of Intervention and Referral 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73  
Examines the tools and techniques necessary in moving  
the chemically dependent individual into the treatment process; the  
varying types of treatment programs, and the essentials of effective  
recovery.

AD 12 — Credentialed Internship 6.5 Units  
Degree Applicable, CSU  
126 hours lecture  
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73  
The second of a two-semester sequence in which the student applies  
the values, concepts and skills gained from previous courses to the  
actual process of helping chemically dependent persons.

AMERICAN LANGUAGE

AMLA 215 — Accent Reduction 2 Units  
Not Degree Applicable  
36 hours lecture  
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73  
The second of a two-semester sequence in which the student applies  
the values, concepts and skills gained from previous courses to the  
actual process of helping chemically dependent persons.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMLA 22S</td>
<td>American Language Interpersonal Communication</td>
<td>2</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Enhances ability of non-native speakers to communicate in everyday and academic situations. Emphasis on grammatical accuracy and sophistication as well as confidence in communications in personal and professional settings.</td>
</tr>
<tr>
<td>AMLA 23S</td>
<td>American Language Formal Speaking</td>
<td>2</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>36 hours lecture</td>
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<td>Advisory: Eligibility for AMLA 41W</td>
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<tr>
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<td>Enhances the ability of non-native speakers to listen effectively and speak formally in a variety of situations; Emphasis is on note-taking, outlining, organizing speeches, and verbal articulation of ideas.</td>
</tr>
<tr>
<td>AMLA 24</td>
<td>Idiomatic English</td>
<td>2</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>Intermediate course in the study of idiomatic language, including common American idioms and proverbs, as used in everyday language situations</td>
</tr>
<tr>
<td>AMLA 31R</td>
<td>American Language Basic Reading</td>
<td>4</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td></td>
<td>Prerequisite: Satisfactory score on appropriate Reading Placement Test or successful completion of noncredit ESL Level 4</td>
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<tr>
<td></td>
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<td></td>
<td>Basic reading and vocabulary for non-native speakers.</td>
</tr>
<tr>
<td>AMLA 32R</td>
<td>American Language Intermediate Reading</td>
<td>4</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Intermediate reading and vocabulary for non-native speakers.</td>
</tr>
<tr>
<td>AMLA 33R</td>
<td>American Language Advanced Reading</td>
<td>4</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td></td>
<td>Prerequisite: Successful completion of AMLA 32R or satisfactory score on appropriate Reading Placement Test</td>
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<tr>
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<td></td>
<td></td>
<td>Advanced reading and vocabulary for non-native speakers.</td>
</tr>
<tr>
<td>AMLA 41W</td>
<td>American Language Basic Writing</td>
<td>4</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: Satisfactory score on the English Placement Test or successful completion of AMLA 41W or noncredit ESL levels 5 or 6 or VESL</td>
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<td></td>
<td>Advisory: AMLA 31R taken prior or concurrently</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Basic grammar and writing for non-native speakers.</td>
</tr>
<tr>
<td>AMLA 42W</td>
<td>American Language Intermediate Writing</td>
<td>4</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>Prerequisite: Satisfactory score on the English Placement Test or successful completion of AMLA 42W</td>
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<td>Advisory: AMLA 32R taken prior or concurrently</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Intermediate grammar and writing for non-native speakers.</td>
</tr>
<tr>
<td>AMLA 43W</td>
<td>American Language Advanced Writing</td>
<td>4</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>72 hours lecture</td>
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<td>Prerequisite: Satisfactory score on the English Placement Test or successful completion of AMLA 43W</td>
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<td>Advisory: AMLA 33R taken prior or concurrently</td>
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<tr>
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<td></td>
<td>Advanced grammar and writing for non-native speakers.</td>
</tr>
<tr>
<td>AMLA 56</td>
<td>American Language Nouns and Articles</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>18 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Advanced grammar and writing for non-native speakers.</td>
</tr>
<tr>
<td>AMLA 57</td>
<td>American Language Verb Review I</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td>18 hours lecture</td>
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<td>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.</td>
</tr>
<tr>
<td>AMLA 58</td>
<td>American Language Verb Review II</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>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.</td>
</tr>
<tr>
<td>AMLA 59</td>
<td>American Language Prepositions</td>
<td>1</td>
<td>Not Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td>18 hours lecture</td>
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<tr>
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<td></td>
<td>Advanced work on gerunds, infinitives and participles for non-native English students. Exercises and writing practice will emphasize improved verb usage in writing.</td>
</tr>
</tbody>
</table>

### ANATOMY AND PHYSIOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 10A</td>
<td>Introductory Human Anatomy</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
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<td>A systematic study of the macroscopic and microscopic structures of the human body. Emphasis on cell structures, skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory, endocrine, and reproductive systems.</td>
</tr>
<tr>
<td>ANAT 10B</td>
<td>Introductory Human Physiology</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
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<td></td>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td></td>
<td>Prerequisite: ANAT 10A or ANAT 35</td>
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<td>Advisory: CHEM 10 or CHEM 40</td>
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<td>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).</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Units</td>
<td>Description</td>
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<tr>
<td>ANAT 35</td>
<td>Human Anatomy</td>
<td>5</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td>Advisory: BIOL 1 or BIOL 4</td>
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<td></td>
<td>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.</td>
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<tr>
<td>ANAT 36</td>
<td>Human Physiology</td>
<td>5</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Prerequisite: ANAT 35, and CHEM 10 or CHEM 40</td>
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<td></td>
<td>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.</td>
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<tr>
<td>ANAT 40</td>
<td>Human Prosection</td>
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<td></td>
<td>108 hours lab</td>
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<td>Prerequisite: Completion of ANAT 35</td>
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<td></td>
<td>Techniques for human prosection. Regional exploration of the human organ systems at the gross level.</td>
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<tr>
<td>ANAT 50</td>
<td>Basic Anatomy and Physiology</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>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.</td>
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<tr>
<td>ANTH 1</td>
<td>Biological Anthropology</td>
<td>3</td>
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<td></td>
<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>The evolutionary biology of primates with particular emphasis on hominin evolution and behavior. The genetic and evolutionary mechanisms underlying evolution, human variation, primate field studies, and the hominid palentological record are stressed.</td>
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<tr>
<td>ANTH 5</td>
<td>Principles of Cultural Anthropology</td>
<td>3</td>
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<td></td>
<td>54 hours lecture</td>
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<td>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.</td>
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<tr>
<td>ANTH 1H</td>
<td>Biological Anthropology - Honors</td>
<td>3</td>
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<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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<tr>
<td></td>
<td>The evolutionary biology of primates with particular emphasis on hominin evolution and behavior. The genetic and evolutionary mechanisms underlying evolution, human variation, primate field studies, and the hominid palentological record are stressed. This enriched course is designed for the honors program allowing, for example, more student directed discussions and more extensive writing assignments. Students may not receive credit for both ANTH 1 and ANTH 1H.</td>
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<tr>
<td>ANTH 7</td>
<td>Biological Anthropology Laboratory</td>
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<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Corequisite: ANTH 1 or ANTH 1H (may have been taken previously)</td>
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<td>Scientific study of human evolution. Students will generate and test hypotheses using the techniques and materials of biological anthropology. Includes genetic observations and calculations, osteological techniques and measurements, and primate behavior observations. One field trip to a zoo for primate observation is required.</td>
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<tr>
<td>ANTH 99</td>
<td>Special Projects in Anthropology</td>
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<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td>To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to 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>
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<tr>
<td>ARAB 1</td>
<td>Elementary Arabic</td>
<td>4</td>
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<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Intended for students with little or no previous exposure to Arabic. Begins to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Focuses on mastery of Arabic script, pronunciation, simple grammatical structures, and basic vocabulary, along with an introduction to Arab culture.</td>
<td></td>
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</tr>
<tr>
<td>ARAB 2</td>
<td>Continuing Elementary Arabic</td>
<td>4</td>
<td></td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: ARAB 1 or equivalent</td>
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<tr>
<td></td>
<td>Continues to develop elementary reading, writing, and speaking skills in Modern Standard Arabic. Emphasizes verbs, word patterns, and vocabulary building; introduces short authentic texts. Includes some exposure to formal Spoken Arabic.</td>
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</tr>
</tbody>
</table>
### Course Descriptions

#### ARCHITECTURAL TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 10</td>
<td>Design I - Elements of Design</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ARCH 11</td>
<td>Architectural Drawing</td>
<td>3</td>
<td>Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.</td>
</tr>
<tr>
<td>ARCH 12</td>
<td>Architectural Materials and Specifications</td>
<td>3</td>
<td>Application and development of construction materials. Formulation of materials specification used in architecture and the construction industry.</td>
</tr>
<tr>
<td>ARCH 13</td>
<td>Architectural Illustration</td>
<td>3</td>
<td>Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio.</td>
</tr>
<tr>
<td>ARCH 14</td>
<td>Building and Zoning Codes</td>
<td>3</td>
<td>Building and zoning codes, including code requirements related to architectural design and construction documentation. Process of obtaining design approvals and building permits from proper authorities having jurisdiction.</td>
</tr>
<tr>
<td>ARCH 15</td>
<td>Architectural Working Drawings - I</td>
<td>3</td>
<td>Application of methods and theory used in architectural design projects. Includes graphic technique, design process, site analysis, presentation drawings and construction principles. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Basic CAD and Computer Application</td>
<td>4</td>
<td>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.</td>
</tr>
<tr>
<td>ARCH 17</td>
<td>Advanced Project</td>
<td>3</td>
<td>Advanced design seminars and complex building design projects in architecture, including portfolio development.</td>
</tr>
<tr>
<td>ARCH 18</td>
<td>Architectural Computer Aided Design Elements</td>
<td>3</td>
<td>Development of architecture including ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Influence of geography, religion, and socio-economic movements on architecture.</td>
</tr>
<tr>
<td>ARCH 19</td>
<td>World Architecture I</td>
<td>3</td>
<td>Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.</td>
</tr>
<tr>
<td>ARCH 20</td>
<td>World Architecture II</td>
<td>3</td>
<td>Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.</td>
</tr>
<tr>
<td>ARCH 21</td>
<td>Design II - Architectural Design</td>
<td>3</td>
<td>Application of theory and principles of environmental design as applied to architecture, landscape architecture, urban design, urban planning and (civil) engineering. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 22</td>
<td>Architectural CAD 3-D Illustration and Animation</td>
<td>3</td>
<td>Application of CAD (Computer Aided Design and Drafting) specifically for architectural design and production. Portfolio of 2-D drawings and 3-D CAD models will be produced.</td>
</tr>
<tr>
<td>ARCH 23</td>
<td>Architectural Presentations</td>
<td>3</td>
<td>Analysis and preparation of architectural presentation projects, including schematic and final design, architectural models, oral presentation techniques, board layouts using hand-drawn and computer-aided techniques, and development of project portfolio.</td>
</tr>
<tr>
<td>ARCH 24</td>
<td>Architectural Working Drawings - II</td>
<td>3</td>
<td>Methods and techniques used in the development of architectural construction documents for light frame structures (Type V construction) including construction theory, practice, and working drawings. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 25</td>
<td>Architectural CAD Working Drawings</td>
<td>3</td>
<td>Advanced architectural CAD drawings. Portfolio of working drawings and presentation applications of integrated 2-D and 3-D CAD models will be produced.</td>
</tr>
<tr>
<td>ARCH 26</td>
<td>Architectural CAD Working Drawings</td>
<td>3</td>
<td>Application of methods and techniques used in the development of architectural construction documents for light frame structures (Type V construction) including construction theory, practice, and working drawings. Portfolio will be produced.</td>
</tr>
<tr>
<td>ARCH 27</td>
<td>Design III - Environmental Design</td>
<td>3</td>
<td>Development of architecture including ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Influence of geography, religion, and socio-economic movements on architecture.</td>
</tr>
<tr>
<td>ARCH 28</td>
<td>Architectural CAD 3-D Illustration and Animation</td>
<td>3</td>
<td>Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.</td>
</tr>
<tr>
<td>ARCH 29</td>
<td>Design IV - Advanced Project</td>
<td>3</td>
<td>Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.</td>
</tr>
</tbody>
</table>
Emphasizes creative expression through the use of drawing media and 72 hours lab achieving compositional integrity through objective analysis and techniques. Emphasis is placed on use of light logic, atmospheric and human figure will be explored. Students who repeat this course will improve skills through further instruction and practice.

ANIM 104 — Drawing Fundamentals 3 Units Degree Applicable
36 hours lecture
72 hours lab
Explores contemporary and traditional approaches to sketching basic objects and the human figure using drawing techniques for rapid visualization. Emphasizes and develops perceptual and technical skills for capturing basic visual mechanics of motion and gesture.

ANIM 107 — Figure in Motion 3 Units Degree Applicable
(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 Degree Applicable, CSU
36 hours lecture
72 hours lab
Explores the 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 Degree Applicable
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 110 — Figure Drawing 1.5 Units Degree Applicable
18 hours lecture
18 hours lab
Prerequisite: ARTD 15A or ANIM 4 or ANIM 104
Explores both traditional and contemporary approaches to sketching and drawing animals. Gesture, anatomical structure, proportion, line and action analysis will be explored. Requires several off-campus field trips.

ANIM 111 — Animal Drawing 3 Units Degree Applicable
36 hours lecture
72 hours lab
Prerequisite: ARTD 15A or ANIM 4 or ANIM 104
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 112 — Drawing, Gesture and Figure 3 Units Degree Applicable
36 hours lecture
71 hours lab
Explores contemporary and traditional approaches to sketching basic objects and the human figure using drawing techniques for rapid visualization. Emphasizes and develops perceptual and technical skills for capturing basic visual mechanics of motion and gesture.

ANIM 115 — Storyboarding 3 Units Degree Applicable
36 hours lecture
72 hours lab
Prerequisite: ARTD 15A or ANIM 4 or ANIM 104
Storyboarding for animation including script, idea and action development. Staging, expression, emotional appeal, camera movement, dialogue and character enhancement, and development will be included.

ANIM 116 — Character Development 1.5 Units Degree Applicable
18 hours lecture
36 hours lab
Prerequisite: ARTD 15A or ANIM 4 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 117 — Animation Background Layout 3 Units Degree Applicable, CSU
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 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 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
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 125 — Animation Production 3 Units Degree Applicable, CSU
72 hours lab
Prerequisite: ARTD 15A or ANIM 4 or ANIM 104
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 130 — Animation for Gaming 3 Units Degree Applicable, CSU
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 131 — Introduction to Gaming 3 Units Degree Applicable, CSU
36 hours lecture
71 hours lab
The field of game design including the principles, tools, and strategies for designing various types of games.
ANIM 137A — Work Experience in New Digital Media 1 to 3 Units
36 hours lecture
72 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 one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

ANIM 137B — Web Animation With Flash 3 Units
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
36 hours lecture
72 hours lab
Prerequisite: ARTC 70
Principles and design considerations of animation for the Web will be explored and developed through use of professional Web animation software.

ANIM 138 — Motion Graphics, Compositing and Visual Effects 3 Units
Prerequisite: ARTC 70
36 hours lecture
71 hours lab
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.

ANIM 139 — Visual Effects II: Particle Systems 1.5 Units
18 hours lecture
36 hours lab
Advisory: ANIM 134
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.

ANIM 140 — Demo-Reel 1.5 Units
18 hours lecture
36 hours lab
Prerequisite: ANIM 132
Animation of a pre-selected 3-D dynamic environment project and development of characteristics and personality of 3-D characters through animation.

ANIM 141 — Advanced 3-D Animation 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions.

ANIM 142 — Advanced 3-D Modeling 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.

ANIM 143 — Animation Environment Layout 3 Units
36 hours lecture
72 hours lab
Advisory: ANIM 132
Create an environment project: design, model, texture, and light an environment for a computer graphics game or film.

ANIM 144 — Visual Effects I: Dynamics 1.5 Units
18 hours lecture
36 hours lab
Advisory: ANIM 132
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.

ANIM 145 — Advanced 3-D Modeling 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.

ANIM 146 — Advanced 3-D Animation 3 Units
36 hours lecture
72 hours lab
Advisory: ANIM 132
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.

ANIM 147 — Visual Effects II: Particle Systems 1.5 Units
18 hours lecture
36 hours lab
Prerequisite: ANIM 134
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.

ANIM 148 — Demo-Reel 1.5 Units
18 hours lecture
36 hours lab
Prerequisite: ANIM 132
Animation of a pre-selected 3-D dynamic environment project and development of characteristics and personality of 3-D characters through animation.

ANIM 149 — Advanced 3-D Animation 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions.

ANIM 150 — Advanced 3-D Modeling 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.

ANIM 151 — Advanced 3-D Animation 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions.

ANIM 152 — Advanced 3-D Modeling 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.

ANIM 153 — Advanced 3-D Animation 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions.

ANIM 154 — Advanced 3-D Modeling 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation.

ANIM 155 — Advanced 3-D Animation 3 Units
36 hours lecture
72 hours lab
Prerequisite: ANIM 130
Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions.
# 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>ARTC 77</td>
<td>Computer Graphics: Exploring Digital Illustration</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
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<tr>
<td>ARTC 165</td>
<td>Illustration</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>71 hours lab</td>
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<tr>
<td>Corequisite: ARTD 20 or ARTD 15A or ANIM 104</td>
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<tr>
<td>ARTC 171</td>
<td>Computer Graphics: Advanced Layout and Design</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
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<tr>
<td>Corequisite: ARTD 17A or ANIM 101 or ANIM 104 (may have been taken previously)</td>
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<tr>
<td>ARTC 172</td>
<td>Computer Graphics - Multimedia</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
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<tr>
<td>Corequisite: ARTC 70</td>
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<tr>
<td>ARTG 21A</td>
<td>Introduction to Exhibition Production</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
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<tr>
<td>Prerequisite: ARTG 20</td>
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<tr>
<td>ARTG 21B</td>
<td>Intermediate Exhibition Production</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU</td>
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<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
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<tr>
<td>Prerequisite: ARTG 21A</td>
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</tbody>
</table>

## ART: BASIC STUDIO ARTS

<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>ARTB 1</td>
<td>Understanding the Visual Arts</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>54 hours lecture</td>
<td></td>
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</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
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</tr>
<tr>
<td>ARTC 78A</td>
<td>Work Experience in Advertising Design/Illustration</td>
<td>1 to 3</td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>(May be taken four times for credit)</td>
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<tr>
<td>(May be taken for Pass/No Pass only)</td>
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<tr>
<td>75 to 225 hours lab</td>
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</tr>
<tr>
<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</td>
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</tr>
<tr>
<td>ARTC 78B</td>
<td>Work Experience in Graphic Design</td>
<td>1 to 3</td>
<td>Degree Applicable</td>
<td></td>
</tr>
<tr>
<td>(May be taken four times for credit)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(May be taken for Pass/No Pass only)</td>
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</tr>
<tr>
<td>75 to 225 hours lab</td>
<td></td>
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</tr>
<tr>
<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</td>
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</tr>
</tbody>
</table>

## ART: GALLERY AND PROFESSIONAL PRACTICES

<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>ARTB 14</td>
<td>Basic Studio Arts</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Eligibility for ENGL 68</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ARTB 15</td>
<td>Basic Studio Arts</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: ARTG 20 or ARTG 21A</td>
<td></td>
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</tr>
<tr>
<td>ARTB 16</td>
<td>Basic Studio Arts</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
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<tr>
<td>Prerequisite: ARTG 21A</td>
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</tr>
<tr>
<td>ARTB 17</td>
<td>Basic Studio Arts</td>
<td>3</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>36 hours lecture</td>
<td>72 hours lab</td>
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</tr>
<tr>
<td>Prerequisite: ARTG 21A</td>
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</tr>
</tbody>
</table>

## ART: COMPUTER GRAPHICS

### ARTC 77 — Computer Graphics: Exploring Digital Illustration
- 3 Units
- Degree Applicable, CSU
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTC 70
- Advisory: ARTC 165 or ARTD 15A or ANIM 104
- Basic principles of art, design and color. Theory as applied to digital hand illustration will be explored and original illustrations created through use of professional illustration software.

### ARTC 78A — Work Experience in Advertising Design/Illustration
- 1 to 3 Units
- Degree Applicable
- (May be taken for option of letter grade or Pass/No Pass)
- 75 to 225 hours lab
- Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
- Advisory: ARTC 66, ARTC 70, ARTC 74, ARTC 171
- Provides students with on-the-job experience in advertising design, illustration and other graphic design and related areas 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 unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### ARTC 78B — Work Experience in Graphic Design
- 1 to 3 Units
- Degree Applicable
- (May be taken for option of letter grade or Pass/No Pass)
- 75 to 225 hours lab
- Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
- Provides students with on-the-job experience in advertising design, illustration and other graphic design and related areas 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 unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### ARTC 161 — Graphic Design: Layout
- 3 Units
- Degree Applicable, CSU
- 36 hours lecture
- 71 hours lab
- Prerequisite: ARTC 60
- An introduction to the graphic design process with an emphasis on visual communication strategies that explore type and image, layout and design development, and the use of symbols related to the field of advertising and graphic design. The course uses various traditional and layout design-related software to explore concept utilization and production, visualization, and professional presentation techniques.

### ARTC 165 — Illustration
- 3 Units
- Degree Applicable, CSU
- 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.

### ARTC 171 — Computer Graphics: Advanced Layout and Design
- 3 Units
- Degree Applicable, CSU
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTC 70
- Advanced visual communication strategies related to digital layout and design in Advertising and Graphic Design. Introduces page layout, and image processing in preparation of newsletters, brochures, posters, and advertising collateral. Emphasis is placed on clarity of communication, design and technical skills. Software: Adobe Creative Suite, QuarkXpress.

### ARTC 172 — Computer Graphics - Multimedia
- 3 Units
- Degree Applicable, CSU
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTC 70
- An introduction to multimedia design and basic animation using Macromedia Director. Introduces text and sound editing, image manipulation, and interactive design principles in the preparation of presentations, animations, and informational kiosks. Emphasis is placed on clarity of communication, design, and technical skills.

### ARTG 21A — Introduction to Exhibition Production
- 3 Units
- Degree Applicable, CSU
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTG 20
- Designed to familiarize all art majors and serious artists with the concepts and hands-on applications of curatorial processes, management skills, and gallery operations. Explores the professional side of the arts, emphasizing contemporary art, theory and media.

### ARTG 21B — Intermediate Exhibition Production
- 3 Units
- Degree Applicable, CSU
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTG 21A
- Provides increasing responsibility in exhibition planning, research, operation and management. Focuses on art as a profession with emphasis on historical/contemporary terms, theories, movements and media in the context of an art exhibition production.
### Course Descriptions

#### ARTG 22A — Exhibition Design and Art Gallery Operation Work Experience
1 to 3 Units
Degree Applicable

(May be taken four times for credit)
75 to 225 hours lab
Prerequisite: ARTG 20, ARTG 21A, ARTG 21B
Provides on-the-job experience in exhibition design and art gallery operation 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. 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.

#### ART: SPECIAL STUDIO ARTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTZ 50</td>
<td>Specialized Studio-Arts Studies</td>
<td>2</td>
<td>CSU</td>
</tr>
</tbody>
</table>

(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 supplemental 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.

#### ART: THREE-DIMENSIONAL STUDIO ARTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS 22</td>
<td>Design: Three-Dimensional</td>
<td>3</td>
<td>CSU, UC</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>72 hours lab</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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</tbody>
</table>

Develops perception and enhances decision making within the three-dimensional world. Emphasis is placed on concept development and artistic expression utilizing principles and elements of three-dimensional design as well as practical experiments with various media.

<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>ARTS 30A</td>
<td>Ceramics: Beginning</td>
<td>3</td>
<td>CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>72 hours lab</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: ARTS 30B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Introduction to clay, glazes and firing through projects that are hand built. Emphasis is on developing skills, vocabulary and analysis of form, function and aesthetics through projects and oral and written criticism.

#### ARTS 30B — Ceramics: Beginning
3 Units
Degree Applicable, CSU, UC

(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
72 hours lab
Prerequisite: ARTS 30A
A continuation into the study of clay, glazes and firing, developing skills introduced in ARTS 30A. Emphasis is on more advanced techniques, using larger amounts of clay and developing the aesthetics of design through form, function and surface treatment.

#### ARTS 31A — Ceramics: Intermediate
3 Units
Degree Applicable, CSU, UC

36 hours lecture
72 hours lab
Prerequisite: ARTS 30B
Integrating materials and design through advanced problems in the techniques of clay construction, glazing and firing.

#### ARTS 31B — Ceramics: Intermediate
3 Units
Degree Applicable, CSU, UC

36 hours lecture
72 hours lab
Prerequisite: ARTS 31A
A continuation of ARTS 31A, examining the problems of aesthetically integrating materials and design by means of advanced problems in the technique of clay construction, glazing and firing. Emphasis is on integrating form and content, mixing glazes and the variety of firing processes.

#### ARTS 33 — Ceramics: Hand Construction
3 Units
Degree Applicable, CSU, UC

36 hours lecture
72 hours lab

Prerequisite: ARTS 41A
Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.

#### ARTS 34 — Sculpture: Beginning
3 Units
Degree Applicable, CSU, UC

36 hours lecture
72 hours lab
Prerequisite: ARTS 40A
A continuation into the study of clay, glazes and firing, developing skills introduced in ARTS 30A. Emphasis is on more advanced techniques, using larger amounts of clay and developing the aesthetics of design through form, function and surface treatment.

#### ARTS 40B — Sculpture: Beginning
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 40A
Advanced projects in subtractive, additive and manipulative approaches are explored.

#### ARTS 40C — Sculpture: Carving
3 Units
Degree Applicable, CSU

36 hours lecture
71 hours lab
Prerequisite: ARTS 40A
Advanced projects in stone or wood carving offering the opportunity to further explore carving using hand, power and pneumatic tools. Emphasis is on individual interpretation.

#### ARTS 41A — Sculpture: Life
3 Units
Degree Applicable, CSU, UC

36 hours lecture
72 hours lab
Prerequisite: ARTS 41A
Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.

#### ARTS 41B — Sculpture: Life
3 Units
Degree Applicable, CSU, UC

(May be taken four times for credit)
36 hours lecture
72 hours lab
Prerequisite: ARTS 41A
Sculptural study of the human figure with emphasis on composition and human anatomy. Advanced projects using materials and techniques suitable for the human form. Students who repeat this course will further develop perceptual skills in clay modeling from the human figure.

#### ARTS 42 — Sculpture: Molding
3 Units
Degree Applicable

(May be taken four times for credit)
36 hours lecture
72 hours lab
Prerequisite: ARTS 42A
Construction and use of flexible and plaster molds. Students who repeat this course will improve skills by further instruction and practice.
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.

**ART: TWO-DIMENSIONAL STUDIO ARTS**

**ARTD 15A — Drawing: Beginning**
- 3 Units
- Degree Applicable
- 36 hours lecture
- 72 hours lab
- An entry level course emphasizing creative expression through the use of drawing media. Emphasis is placed on basic drawing methods and skills, composition and exploration of drawing media.

**ARTD 15B — Drawing: Beginning**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.

**ARTD 16 — Drawing: Perspective**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- 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.

**ARTD 17A — Drawing: Life**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 15A or ANIM 104
- 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.

**ARTD 17B — Drawing: Life**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 17A
- Extends and expands the principles and techniques introduced in ARTD 17A. More emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 18 — Design: Two Dimensional**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- 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 art forms through the use of color, texture, line, shape, space, and surface. Students will develop the ability to conceptualize and solve compositional and technical painting problems.

**ARTD 19 — Design: Color and Composition**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 15A
- Explores contemporary and traditional approaches to sketching the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 20 — Design: Color and Composition**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Explores contemporary and traditional approaches to drawing the human figure. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 21 — Design: Color and Composition**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 20 or equivalency determined by a portfolio review
- Explores contemporary and traditional approaches to drawing the human figure. Emphasis is placed on fundamental color harmonies, color matching, the effects of light, color perception and expression in their application to design and composition and as they are used in all other disciplines of the arts.

**ARTD 22 — Design: Color and Composition**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 21
- Explores contemporary and traditional approaches to constructing images of the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 23 — Drawing: Head and Hands**
- 1.5 Units
- Degree Applicable, CSU, UC
- 18 hours lecture
- 36 hours lab
- Prerequisite: ARTD 15A or ANIM 104
- Contemporary and traditional approaches to constructing images of the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 24 — Drawing: Beginning**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Expands and expands the principles, techniques and painting problems that were introduced in ARTD 26A. More emphasis is placed on personal approach and expression.

**ARTD 25A — Drawing: Advance**
- 1.5 Units
- Degree Applicable, CSU, UC
- 18 hours lecture
- 36 hours lab
- Prerequisite: ARTD 24
- Explores contemporary and traditional approaches to drawing the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 25B — Painting: Advance**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 25A
- Explores contemporary and traditional approaches to painting the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 26A — Painting: Beginning**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 25B
- Explores contemporary and traditional approaches to painting the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 26B — Painting: Intermediate**
- 3 Units
- Degree Applicable, CSU, UC
- 36 hours lecture
- 72 hours lab
- Prerequisite: ARTD 26A
- Explores contemporary and traditional approaches to painting the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.

**ARTD 26C — Painting: Advanced**
- 1.5 Units
- Degree Applicable, CSU, UC
- 18 hours lecture
- 36 hours lab
- Prerequisite: ARTD 26B
- Explores contemporary and traditional approaches to painting the human head and hands. Emphasis is placed on personal interpretation, individual expression, and media exploration.
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
72 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 43 — Introduction to Printmaking 3 Units
Degree Applicable, CSU, UC
36 hours lecture
71 hours lab
Introduction to creative techniques in fine art printmaking using relief and intaglio projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion and oral/written criticism.

ARTD 44 — Printmaking: Relief and Lithography 3 Units
Degree Applicable, CSU, UC
36 hours lecture
72 hours lab
Prerequisite: ARTD 43
Creative techniques in fine art printmaking focusing on lithography. The possibilities of combination of planographic with relief methods will be explored. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.

ARTD 45 — Printmaking: Collagraph/Monotype/Silkscreen 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
72 hours lab
Prerequisite: ARTD 43
Creative techniques in fine art printmaking using collagraphs, monotypes, monoprints and stencil projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of mixed media printmaking's aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.

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.

AHIS 4 — History of Western Art: Prehistoric Through Gothic 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
An examination of Western art from the Prehistoric through Gothic periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced.

AHIS 4H — History of Western Art: Prehistoric Through Gothic - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
An examination of Western art from the Prehistoric through Gothic periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. This is an honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 4 (formerly ARTA 4) and AHIS 4H.

AHIS 5 — History of Western Art: Renaissance Through Modern 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Western art from the Renaissance through Modern periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced.

AHIS 5H — History of Western Art — Renaissance Through Modern — Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Western art from the Renaissance through Modern periods demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 5 (formerly ARTA 5) and AHIS 5H.

AHIS 6 — History of Modern Art 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Examines the artistic movements, influences, and individuals who have formed the Modern tradition. Emphasis is on the 20th century; the international and multicultural character of Modern art will be explored.

AHIS 6H — History of Modern Art - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Examines the artistic movements, influences, and individuals who have formed the Modern tradition. Emphasis is on the 20th century; the international and multicultural character of Modern art will be explored. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 6 (formerly ARTA 6) and AHIS 6H.

AHIS 9 — History of Asian Art 3 Units
Degree Applicable, CSU, UC
54 hours lecture
An examination of Asian artistic traditions. Major monuments of painting, sculpture, architecture and other visual art forms are studied within their religious and cultural contexts.

AHIS 10 — A History of Greek and Roman Art - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
A critical history of Greek and Roman art before 500 CE. Works of art and architecture will be examined in their cultural contexts. Historical perceptions of Classical art and culture and their impact on Europe and America will be studied.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 5</td>
<td>Introduction to Astronomy</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Eligibility for ENGL 1A; acceptance into Honors</td>
</tr>
<tr>
<td>ASTR 5H</td>
<td>Introduction to Astronomy - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Acceptance into the Honors Program</td>
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<td>ASTR 5L</td>
<td>Astronomical Observing Laboratory</td>
<td>1</td>
<td>Degree Applicable</td>
<td>Enroll in ASTR 5L to receive laboratory science credit.</td>
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<tr>
<td>BIOL 1</td>
<td>General Biology</td>
<td>4</td>
<td>Degree Applicable</td>
<td>Eligibility for ENGL 1A; acceptance into Honors</td>
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<tr>
<td>BIOL 2</td>
<td>Plant and Animal Biology</td>
<td>4</td>
<td>Degree Applicable</td>
<td>BIOL 1 or BIOL 4; and Math 71</td>
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<tr>
<td>BIOL 3</td>
<td>Ecology and Field Biology</td>
<td>4</td>
<td>Degree Applicable</td>
<td>BIOL 1 or BIOL 4; and Math 71</td>
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<tr>
<td>BIOL 4</td>
<td>Geology of the Solar System</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Eligibility for ENGL 1A; acceptance into Honors</td>
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<td>BIOL 8</td>
<td>Introduction to Stars, Galaxies, and the Universe</td>
<td>3</td>
<td>Degree Applicable</td>
<td>Eligibility for ENGL 1A; acceptance into Honors</td>
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<tr>
<td>ASTR 99</td>
<td>Special Projects in Astronomy</td>
<td>2</td>
<td>Degree Applicable</td>
<td>Eligibility for ENGL 1A; acceptance into Honors</td>
</tr>
</tbody>
</table>

### AHIS 11 — History of African, Oceanic, and Native American Art
54 hours lecture
Advisory: Eligibility for ENGL 1A
Examination of the traditional arts of African tribes and kingdoms, Oceania and Australia, and Native North America. Visual arts including painting, sculpture, architecture, body decoration, and ritual objects will be studied in their cultural contexts.

### AHIS 12 — History of Precolumbian Art
54 hours lecture
Advisory: Eligibility for ENGL 68
The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Incas will be studied in their cultural contexts.

### AHIS 12H — History of Precolumbian Art - Honors
54 hours lecture
Prerequisite: Acceptance into the Honors Program
The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Incas will be examined in their cultural contexts. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 12 (formerly ARTA 12) and AHIS 12H.

### AHIS 99 — Special Projects in Art History
2 Units
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 hours lab
Advisory: AHIS 1 (formerly ARTA 1)
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.
Course Descriptions

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
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.

BIOL 6L — Humans and the Environment Laboratory 2 Units
54 hours lecture
72 hours lab
Prerequisite: CHEM 10 or CHEM 40, and MATH 71
Introduces basic principles and concepts of biology with a focus on human health and disease. Includes laboratory meetings at off-campus locations.

BIOL 6 — Humans and the Environment 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: CHEM 10 or CHEM 40, and MATH 71
Exposes students to ecological concepts to aid understanding our environmental crisis and perspectives from various disciplines. Includes one hour discussion group per week.

BIOL 5 — Contemporary Health Issues 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Provides an overview of contemporary health issues known to affect individuals and communities. Topics include healthcare, health disparities, and social determinants of health.

BIOL 13 — Human Reproduction, Development and Aging 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity and ecology. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 4 and BIOL 4H.

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. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 4 and BIOL 4H.

BIOL 15 — Human Sexuality 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity and ecology. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 15 and BIOL 15H.

BIOL 15H — Human Sexuality - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity and ecology. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 15 and BIOL 15H.

BIOL 20 — Marine Biology 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Corequisite: BIOL 20 (may have been taken previously)
An introduction to the field and laboratory aspects of the marine environment. Emphasizes the structure and functional biology of marine invertebrates and vertebrates, ecology of intertidal organisms, and ecology of estuaries. Field trips required.

BIOL 21 — Marine Biology Laboratory 1 Unit
Degree Applicable, CSU, UC
54 hours lab
Corequisite: BIOL 20 (may have been taken previously)
An introduction to the field and laboratory aspects of the marine environment. Emphasizes the structure and functional biology of marine invertebrates and vertebrates, ecology of intertidal organisms, and ecology of estuaries. Field trips required.

BIOL 34 — Fundamentals of Genetics 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: BIOL 4
Explores theory and applications of genetics. Major topics include Mendelian and molecular genetics, mechanisms of inheritance, gene expression, linkage and chromosome mapping, mutations and evolution, population genetics, and ethical and moral implications of DNA technology.

BIOL 50 — Biology Basic Skills .5 Unit
Not Degree Applicable
(May be taken for Pass/No Pass only)
9 hours lecture
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 plans, and management of time and opportunities. Students must have instructor's authorization before enrolling in this course. Students repeating this course will make consideration. Students must have instructor's authorization before enrolling in this course. Students repeating this course will make consideration. Students must have instructor's authorization before enrolling in this course. Students repeating this course will make consideration. Students must have instructor's authorization before enrolling in this course. Students repeating this course will make consideration.

BIOL 99A — Special Projects in Biology 1 to 2 Units
Degree Applicable, CSU
May be taken four times for credit
18 to 36 hours lecture
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.
## BOTANY

### BTNY 3 — Plant Structures, Functions, and Diversity 5 Units
- Degree Applicable, CSU, UC
- 54 hours lecture
- 108 hours lab
- Advisory: BIOL 1 or BIOL 4 and Eligibility for ENGL 1A

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.

## BUSINESS: ACCOUNTING

### BUSA 7 — Principles of Accounting - Financial 5 Units
- Degree Applicable, CSU, UC
- 90 hours lecture
- Prerequisite: BUSA 11 or eligibility for MATH 51
- Advisory: Eligibility for ENGL 1A

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.

### BUSA 8 — Principles of Accounting - Managerial 5 Units
- Degree Applicable, CSU, UC
- 90 hours lecture
- Prerequisite: BUSA 7

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.

### BUSA 11 — Fundamentals of Accounting 3 Units
- Degree Applicable
- 54 hours lecture
- Prerequisite: BUSA 68 or eligibility for MATH 50

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.

### BUSA 21 — Cost Accounting 4 Units
- Degree Applicable
- 72 hours lecture
- 18 hours lab
- Prerequisite: BUSA 8

Practical and theoretical concepts of cost accounting. Includes variable and fixed costs, cost-volume-profit analysis, job order and process costing, activity-based costing, general and flexible budgeting, standard costs, product costing/pricing methods, cost allocation, inventory management, capital budgeting, and transfer pricing.

### BUSA 52 — Intermediate Accounting 3 Units
- Degree Applicable
- 54 hours lecture
- Prerequisite: BUSA 8

Detailed review of basic accounting concepts and principles and an in-depth analysis of the balance sheet and income statement. Emphasis is placed on the changing nature of principles and practices, the application of present-value concepts, the complexity of transactions that arise in a complex economic environment and the use of accounting information in decision making.

### BUSA 53 — Ten-Key Calculations 2 Units
- Degree Applicable
- 18 hours lecture
- 54 hours lab
- Prerequisite: BUSA 68 or eligibility for MATH 50

Operation of electronic calculators by the touch method to solve accounting transactions, prepare statements and reports, and complete a practice set.

### BUSA 58 — Federal Income Tax Law 3 Units
- Degree Applicable
- 54 hours lecture
- Prerequisite: BUSA 7 or BUSA 72

Federal and state income tax laws as related to individuals, 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 68 — Business Mathematics 3 Units
- Not Degree Applicable
- 54 hours lecture

Prerequisite: BUSA 68 or eligibility for MATH 50

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 11

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.
### COURSE DESCRIPTIONS

#### BUSINESS: BUSINESS COMMUNICATIONS

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSO 5</td>
<td>Business English</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thorough training in the skills and techniques of English, as applied to business situations, with emphasis on effective paragraphs and memos.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>BUSO 25</td>
<td>Business Communications</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>Written communications including letters and memos meeting a variety of situations in the business environment. Includes writing of good news, bad news, sales, claims, and persuasive correspondence; letters and resumes appropriate to job seeking and application; and practicing oral skills as applied to job interviews and business reports.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td>BUSO 26</td>
<td>Oral Communications for Business</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>54 hours lecture</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td>BUSO 96A</td>
<td>Business Vocabulary</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Develops a broad word command of new and specialized business vocabulary for use in various businesses. Improves vocabulary to enhance written and oral communication</td>
<td>27 hours lecture</td>
<td>Degree Applicable, CSU</td>
</tr>
</tbody>
</table>

#### BUSINESS: ECONOMICS

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSC 1A</td>
<td>Principles of Economics - Macroeconomics</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>BUSC 1AH</td>
<td>Principles of Economics - Macroeconomics - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>

#### BUSINESS: LAW

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
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<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSL 18</td>
<td>Business Law</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>BUSL 18H</td>
<td>Business Law - Honors</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>BUSL 19</td>
<td>Advanced Business Law</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>Principles of business law emphasizing commercial paper, agency, partnerships, corporations, bankruptcy, regulation of trade and real property.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>BUSL 20</td>
<td>International Business Law</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td>54 hours lecture</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
</tbody>
</table>
## Course Descriptions

### BUSINESS: MANAGEMENT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSM 10</td>
<td>Principles of Continuous Quality Improvement</td>
<td>3</td>
<td>Study of the continuous quality management process and tools for the continuous improvement of quality are presented. Relevant case studies are included.</td>
</tr>
<tr>
<td>BUSM 25</td>
<td>Principles of E-Commerce</td>
<td>3</td>
<td>A hands-on course focusing on the principles of e-commerce through the use of the internet. Students study the economic importance of e-commerce domestically and internationally. Includes uses of the internet, consumer buying, retail and business purchases, internet marketing, digital advertising, global e-commerce and business web sites.</td>
</tr>
<tr>
<td>BUSM 50</td>
<td>World Culture: A Business Perspective</td>
<td>3</td>
<td>An overview of the effects of culture on business communication and interaction. Cultural roles and components are described and related to the business environment and the student’s own culture.</td>
</tr>
<tr>
<td>BUSM 51</td>
<td>Principles of International Business</td>
<td>3</td>
<td>An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing, and strategic planning.</td>
</tr>
<tr>
<td>BUSM 52</td>
<td>Principles of Exporting and Importing</td>
<td>3</td>
<td>Provides a comprehensive overview of the exporting and importing of goods and services.</td>
</tr>
<tr>
<td>BUSM 60</td>
<td>Human Relations in Business</td>
<td>3</td>
<td>Study of human relations in the business environment, with a focus on the interplay of behavior, personality, self-management, self-development, and elementary business psychology as an aid to furthering the student’s business advancement and lifelong learning. Class discussions focus on the student’s understanding of interpersonal effectiveness with emphasis on communications, motivation, leadership, and other related areas.</td>
</tr>
<tr>
<td>BUSM 61</td>
<td>Business Organization and Management</td>
<td>3</td>
<td>Study of business organization and management, with a focus on the functions of management, techniques of decision making and problem solving, and methods used by the manager to achieve organizational goals. Various theories of management, lines of authority, functions of departments, and the importance of policies, procedures, and controls are discussed.</td>
</tr>
<tr>
<td>BUSM 62</td>
<td>Human Resource Management</td>
<td>3</td>
<td>Study of human resource management, with a focus on the skills and techniques necessary for managing people, including guidance, control supervisory problems, training, job analysis, interviewing, testing, rating, and other functions involving human resources. Designed to improve the employer’s understanding of the relationship between the individual and the business organization.</td>
</tr>
<tr>
<td>BUSM 66</td>
<td>Small Business Management</td>
<td>3</td>
<td>Study of small business management, with a focus on the practical problems encountered in organizing and operating a small business enterprise: initiating the business, financial and administrative control, legal and government relationships and other related considerations.</td>
</tr>
<tr>
<td>BUSM 81</td>
<td>Work Experience in Business</td>
<td>1-4</td>
<td>Provides business students with actual on-the-job experience in an approved worksite which is related to classroom-based learning. 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 cooperation is provided. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>BUSM 85</td>
<td>Special Issues in Business</td>
<td>2</td>
<td>Provides a platform for discussing special issues in business, with a focus on obtaining knowledge, developing techniques, problem solving, and implementing actual business plans. 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>
</tr>
</tbody>
</table>

### BUSINESS: PARALEGAL

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLGL 30</td>
<td>Introduction to Paralegal/Legal</td>
<td>3</td>
<td>Basic knowledge required of paralegals. An overview of the federal and state legal systems, the relationship of paralegals to attorneys, an introduction to legal research and the evaluation of claims and legal ethics.</td>
</tr>
<tr>
<td>PLGL 31A</td>
<td>Legal Analysis and Writing</td>
<td>3</td>
<td>Use of a law library for legal research and references, reading and analyzing codes and statutes, and preparation of case briefs and research reports.</td>
</tr>
<tr>
<td>PLGL 31B</td>
<td>Advanced Legal Analysis and Writing</td>
<td>3</td>
<td>Preparation of research memoranda, trial briefs, appellate briefs and other paralegal documents. Continuation of PLGL 31A, Legal Analysis and Writing.</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
| **PLGL 33A — Civil Procedure Pretrial** 3 Units  
54 hours lecture  
Corequisite: PLGL 30 (may have been taken previously)  
Analysis of the pretrial procedural steps to litigating a cause of action. Examines the concepts of jurisdiction, venue, parties to the action, service of process, default judgments, motions and pleadings. |
| **PLGL 33B — Civil Procedure-Trial and Post-Trial** 3 Units  
54 hours lecture  
Corequisite: PLGL 33A  
Preparing for litigation. Includes discovery, preparation of law and motion documents, remedies, summary judgments, motions to dismiss, settlements, and arbitration. |
| **PLGL 33C — Civil Procedure-Appeals** 3 Units  
54 hours lecture  
Corequisite: PLGL 33A  
Analysis of the pretrial procedural steps to litigating a cause of action. Examines the concepts of jurisdiction, venue, parties to the action, service of process, default judgments, motions and pleadings. |
| **PLGL 34 — Criminal Procedure** 3 Units  
54 hours lecture  
Corequisite: PLGL 30  
Study of the investigative, arrest, pre-trial, and trial phases of criminal procedure. Includes search and seizure, confessions, and interrogation. |
| **PLGL 35A — Law Office Procedures** 3 Units  
54 hours lecture  
Advisory: PLGL 30  
Examines procedures utilized by a paralegal in a law office. Includes use of the personal computer for special purposes in the law office; preparation of legal documents, correspondence, legal research, document control, preparation of billing, law office and case load management, and tax reports. |
| **PLGL 35B — Automated Law Office Procedures** 3 Units  
54 hours lecture  
Corequisite: PLGL 35A  
Use of the personal computer for special purposes in the law office; preparation of legal documents, correspondence, legal research, document control, preparation of billing, law office and case load management, and tax reports. |
| **PLGL 36 — Paralegal Internship** 1 Unit  
75 hours lab  
(May be taken four times for credit)  
(May be taken for Pass/No Pass only)  
Prerequisite: PLGL 31A, PLGL 33A, and PLGL 35A  
Corequisite: PLGL 31B, PLGL 33B, PLGL 35B, PLGL 37, PLGL 39 (may have been taken previously)  
Designed to provide the student with actual on-the-job experience in the paralegal profession which relates to student’s classroom based learning. Placement is not guaranteed but assistance is provided by the paralegal faculty. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required. Students who repeat this course will improve skills through further instruction and practice. |
| **PLGL 37 — Tort Law** 3 Units  
54 hours lecture  
Corequisite: PLGL 30  
Analysis of the law of torts including intentional torts such as assault, battery, false imprisonment, defamation, privacy, trespass and nuisance, NEGLIGENCE, and strict liability. Examination of insurance defense issues. |
| **PLGL 38 — Employment and Ethical Issues in Paralegali** 2 Units  
36 hours lecture  
Corequisite: PLGL 31A, PLGL 33A, and PLGL 35A  
Examination of the concepts of jurisdiction, venue, parties to the action, service of process, default judgments, motions and pleadings. |
| **PLGL 39 — Contract Law** 3 Units  
54 hours lecture  
| **PLGL 40 — Landlord-Tenant Law** 3 Units  
54 hours lecture  
Corequisite: PLGL 30  
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  
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  
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  
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  
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  
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  
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  
27 hours lecture  
Corequisite: PLGL 47A  
Students will present a case and evaluate the effectiveness of their presentation. Continuous revision of opening arguments, direct arguments, direct examinations, and cross-examinations. |
| **PLGL 48 — Criminal Law and Procedures** 3 Units  
54 hours lecture  
Corequisite: PLGL 47A  
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  
54 hours lecture  
Corequisite: PLGL 47A  
Overview of evidence law in civil and criminal cases: principles of relevancy 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.

BUSINESS: REAL ESTATE

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 (AWB) requirements for certified-residential/certified-general appraiser license. Also provides 30 hours toward office of real estate Appraisers (OREA) requirements for state licensing.

BUSR 51 — Legal Aspects of Real Estate  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSR 50 or employment in the real estate field  
Real estate contracts, leases, deeds, foreclosures, homesteads, agency, and disclosures. Can be used to meet the additional educational requirements for the salesperson or broker license.

BUSR 52 — Real Estate Practice  
3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: BUSR 50 (may have been taken previously) or employment in the real estate field  
Office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. A course in real estate practice must be completed within 18 months of licensure.

BUSR 52D — Real Estate Practice Work Experience  
3 Units  
Degree Applicable  
(May be taken four times for credit)  
225 hours lab  
Corequisite: BUSR 50 and not possessing a permanent California real estate license at time of enrollment. Student must be enrolled in seven units minimum including work experience units. Provides a minimum of 180 hours of on-site real estate office and/or field work experience under the supervision of a licensed California real estate professional and a college instructor/coordinator. Designed to satisfy Department of Real Estate licensing requirements serving as an equivalent to BUSR 52. Students who repeat this course will improve their skills through further instruction and practice.

BUSR 53 — Real Estate Finance  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSR 50 or employment in the real estate field  
Real estate financing sources, loans underwriting, applications, and appraisals. Can be used to meet the additional education requirement of the salesperson or broker license.

BUSR 55 — Real Estate Economics  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSR 50 or employment in the real estate field  
Analysis of international, national and local factors which determine the value of real estate. Required by the DRE for the real estate broker license and may be used as the elective course for the salesperson license.

BUSR 57 — Income Tax Aspects of Real Estate Investments  
3 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 brokerage and lending in the State of California as well as mortgage lending history and process. May be used as an elective for the salesperson or broker license.

BUSR 76 — Escrow Procedures I  
3 Units  
Degree Applicable  
54 hours lecture  
A case study method of escrow procedures including processing of sale escrows with and without new trust deed financing; learning and using the vocabulary of escrow; drawing of documents; and other processing details pertinent to handling escrows from inception to closing. May be used as an elective for the salesperson or broker license.

BUSR 77 — Escrow Procedures II  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: BUSR 76  
Advanced escrow procedures covering the more unusual and difficult types of escrows and evaluating the possible solutions. Emphasis on practical processing of real estate sale and loan transactions with some personal property sales. Designed to assist those either directly or indirectly connected with the escrow industry.

BUSR 81 — Appraisal: Principles and Procedures  
3.5 Units  
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.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BUSS 33 — Advertising and Promotion</td>
<td>3 Units Degree Applicable, CSU 54 hours lecture Characteristics and role of advertising and promotion in business are explored. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy. Students may not receive credit for both BUSS 33 and FASH 63.</td>
</tr>
<tr>
<td>BUSS 35 — Professional Selling</td>
<td>3 Units Degree Applicable, CSU 54 hours lecture Prerequisite: Eligibility for ENGL 68 Principles of selling and the role of a salesperson in the marketing process. Includes characteristics and skills necessary for a successful salesperson, techniques for prospecting and/or qualifying buyers, buyer behavior and critical steps in the selling process. Students develop and offer a sales presentation for a selected product, service or concept.</td>
</tr>
<tr>
<td>BUSS 36 — Principles of Marketing</td>
<td>3 Units Degree Applicable 54 hours lecture Prerequisite: Eligibility for ENGL 68 Organization and function of system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.</td>
</tr>
<tr>
<td>BUSS 50 — Retail Store Management and Merchandising</td>
<td>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.</td>
</tr>
<tr>
<td>BUSS 79 — Work Experience in Marketing Management</td>
<td>1 to 4 Units Degree Applicable (May be taken for option of letter grade or Pass/No Pass) 75 to 300 hours lab Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50 and compliance with Work Experience regulations as designated in the College Catalog Provides marketing students with actual on-the-job experience in an approved work setting which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>CHEM 10 — Chemistry for Allied Health Majors</td>
<td>4 Units Degree Applicable, CSU, UC 108 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.</td>
</tr>
<tr>
<td>CHEM 20 — Introductory Organic and Biochemistry</td>
<td>5 Units Degree Applicable, CSU, UC 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.</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>CHEM 40</td>
<td>Introduction to General Chemistry</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>72 hours lab</td>
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<td></td>
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<tr>
<td></td>
<td>Prerequisite: Eligibility for MATH 71</td>
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<td></td>
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<tr>
<td></td>
<td>Advisory: Eligibility for ENGL 1A</td>
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<tr>
<td></td>
<td>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).</td>
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<td></td>
</tr>
<tr>
<td>CHEM 50</td>
<td>General Chemistry I</td>
<td>5</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>108 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: (CHEM 40 or satisfactory score on Chemistry Placement Examination) and (MATH 71, 71B or 71X or equivalent)</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>CHEM 50H</td>
<td>General Chemistry I - Honors</td>
<td>5</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>108 hours lab</td>
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<tr>
<td></td>
<td>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)</td>
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</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>CHEM 51</td>
<td>General Chemistry II</td>
<td>5</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>108 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: CHEM 50 or CHEM 50H</td>
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<td></td>
<td>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.</td>
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<tr>
<td>CHEM 60</td>
<td>Quantitative Chemical Analysis</td>
<td>5</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>108 hours lab</td>
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<td></td>
<td>Prerequisite: CHEM 51</td>
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<td></td>
<td>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.</td>
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<tr>
<td>CHEM 80</td>
<td>Organic Chemistry</td>
<td>5</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Prerequisite: CHEM 51</td>
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<td></td>
<td>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.</td>
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</tr>
<tr>
<td>CHEM 81</td>
<td>Organic Chemistry</td>
<td>5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>108 hours lab</td>
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<td></td>
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<tr>
<td></td>
<td>Prerequisite: CHEM 80</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>CHEM 99</td>
<td>Special Projects in Chemistry</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</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>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>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.</td>
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</tbody>
</table>

### CHILD DEVELOPMENT

<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>CHLD 1</td>
<td>Child, Family, School and Community</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td></td>
<td>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.</td>
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<tr>
<td>CHLD 5</td>
<td>Principles/Practices in Child Development Programs</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>Overview of early child development programs: their histories, philosophies and emphasis; methods of guidance and discipline, licensing and regulations for state, federal and private programs. Reviews philosophies of educating young children and learning, while examining developmentally appropriate practices, including the influence of culture and inclusive environments on the developing child. Explores career paths, professional growth, and ethics. Student assignments involve ten hours outside of class time observation and participation in children's programs.</td>
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</tr>
<tr>
<td>CHLD 6</td>
<td>Survey of Child Development Curriculum</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>Prerequisite: CHLD 5 or CHLD 10</td>
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<td></td>
<td>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.</td>
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</tr>
</tbody>
</table>
### COURSE DESCRIPTIONS

#### CHLD 51 — Early Literacy in Child Development 3 Units  
Degree Applicable, CSU
54 hours lecture  
Develops a coherent model for understanding periods and patterns of development of literacy from birth through early childhood. Includes the integration of language, literacy, and technology in early childhood settings. Emphasizes the importance of self-assessment and reflection in literacy development. Students may not receive credit for both CHLD 51 and CHLD 10H. TB test required.

#### CHLD 52 — Creative Science and Math for Young Children 3 Units  
Degree Applicable, CSU
54 hours lecture  
Prerequisite: CHLD 5 and CHLD 10 or CHLD 10H  
Examines the developmental continuum of literacy from birth through early childhood. Considers language, literacy, and technology in early childhood settings. Emphasizes the importance of self-assessment and reflection in literacy development. Students may not receive credit for both CHLD 51 and CHLD 10H. TB test required.

#### CHLD 53 — Multicultural Education: Anti-Bias Perspective 3 Units  
Degree Applicable, CSU
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 54 — Language Arts and Art Media for Young Children 3 Units  
Degree Applicable, CSU
54 hours lecture  
Prerequisite: CHLD 61  
Language and literacy development of young children (0 to 6 years) is explored through developmentally appropriate activities and language, play, games, and stories. Describes the role of creative action 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 55 — Music and Motor Development for Young Children 3 Units  
Degree Applicable, CSU
54 hours lecture  
Prerequisite: CHLD 61  
Music, movement, and sensory motor development. Emphasizes student role in practical activities including making music, movement, singing, and musical instruments. Out of class observation at a child development center required. TB test required.

#### CHLD 56 — Early Childhood Development Observation 2 Units  
Degree Applicable, CSU
54 hours lecture  
Corequisite: CHLD 66  
Exploration of child'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.

#### CHLD 57 — Health, Safety and Nutrition of Young Children 3 Units  
Degree Applicable, CSU
54 hours lecture  
Prerequisite: CHLD 10 or CHLD 10H  
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 58 — Children With Special Needs 3 Units  
Degree Applicable, CSU
54 hours lecture  
Prerequisite: CHLD 10 or CHLD 10H  
Characteristics of the needs of typically and atypically developing children in areas of cognitive, physical, neurological, emotional, and social development. Identifies legal requirements, current issues, community resources and the IEP/IFSP process. Emphasizes modifications, adaptations, accommodations and teaching techniques involved in the inclusive classroom. Required observations in community agencies.

#### CHLD 59 — Early Childhood Development Field Work Seminar 2 Units  
Degree Applicable, CSU
36 hours lecture  
Prerequisite: CHLD 69  
Corequisite: CHLD 91  
Selected topics pertinent to problems of students placed in community settings. Topics include philosophical orientation, curriculum, parent involvement, staff roles, professionalism and professional growth, and will involve study, discussion and research.
CHLD 71A — Administration of Child Development Programs 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 1, CHLD 5, CHLD 6, CHLD 10 or CHLD 10H, or experience as an Administrator of a Children's Program
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.

CHLD 71B — Management/Marketing/Personnel for ECD Programs 3 Units
Degree Applicable
54 hours lecture
Prerequisite: CHLD 71A
Strategic planning for ECD programs, including financial administration, budgeting and marketing. Investigates basic financial/data management programs; examines personnel management practices designed to facilitate director/administrator/staff relationships; and explores staff development strategies and techniques employed in creative teaching methods.

CHLD 72 — Teacher, Parent, and Child Relationships 3 Units
Degree Applicable
54 hours lecture
Comprehensive examination of child/parent/teacher relationships to better understand family dynamics and to recognize influences in the child development setting. Theories of sequential changes in parent/child/school relations within the large social context. Strategies dealing with issues that emerge when working with children and their families in the school setting.

CHLD 73 — Infant/Toddler Care and Development 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: CHLD 10 or CHLD 10H
Caregivers and parents learn developmentally appropriate practices for infants and toddlers applicable to families and group care, environmental planning, and developing relationships between diverse families and staff. Student assignments involve up to ten hours of observations and participation with infants and toddlers outside of class time.

CHLD 74 — Program Planning for the School Age Child 3 Units
Degree Applicable
54 hours lecture
Advisory: CHLD 10 or CHLD 10H
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.

CHLD 75 — Supervising Adults in Early Childhood Settings 2 Units
Degree Applicable
36 hours lecture
Advisory: CHLD 1 and CHLD 5
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.

CHLD 81 — Current Curriculum Models in Child Development 1 Unit
(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
(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
(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 64 and CHLD 73
Advisory: CHLD 5
Principles and methods of working with infants and toddlers who are disabled or at-risk in the early childhood setting. Emphasis is placed on issues affecting normal development, prevention, intervention, referrals and transition to school. Course will prepare teachers of young children for appropriate planning in these settings.

CHLD 86 — Family Child Care 3 Units
Degree Applicable
75 hours lab
Prerequisite: CHLD 67 and CHLD 67L
Corequisite: CHLD 69
An overall view of home-based early education programs which includes standards of quality for the field of family child care in relationships, environments, activities, developmental learning goals, safety/health, professional and business practices.

CHLD 87 — Family Child Care Lab 4 Units
May be taken for Pass/No Pass only
75 hours lab
Prerequisite: CHLD 67 and CHLD 67L
Corequisite: CHLD 69
Development of practical skills and understanding of family care philosophy and principles. Includes parent-teacher conferences, home observations, demonstrations, and teaching. Includes development of attitude and skills that lend themselves to working with families in the home setting.

CHIN 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. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Chinese culture.
### COURSE DESCRIPTIONS

#### COMPUTER APPLICATIONS

The COMP courses listed under this section have been changed effective the 2010-11 academic year. COMP courses are now located under their new course designations CISB, CISI, and CSISW as indicated below.

For: COMP 10 — Operating the Macintosh
  COMP 12 — Office Computer Applications
  COMP 20 — Word for the Business Professional
  COMP 50 — Desktop Presentations Using Presentation Software
  COMP 60 — Desktop Publishing Using Desktop Publishing Software

See: (CISB) COMPUTER INFORMATION SYSTEMS: BEGINNING

For: COMP 2 — Intermediate Keyboarding
  COMP 1A — Computer Keyboarding
  COMP 1B — Computer Keyboarding
  COMP 2A — Data Entry
  COMP 2B — Office Management Skills

See: (CISI) COMPUTER INFORMATION SYSTEMS: INFORMATION PROCESSING

For: COMP 13 — Using Web Page Software
See: (CSISW) COMPUTER INFORMATION SYSTEMS: WEB APPLICATIONS

#### COMPUTER GRAPHSICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 1</td>
<td>Computer Graphics Lab</td>
<td>1 Unit</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

(May be taken for option of letter grade or Pass/No Pass)

54 hours lab

Advisory: COMP 10 or equivalent computer experience

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.

#### COMPUTER APPLICATIONS

<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>CHIN 2</td>
<td>Continuing Elementary Chinese</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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</tbody>
</table>

72 hours lecture

Prerequisite: CHIN 1 or equivalent

Further develops conversational, reading, and writing skills in Mandarin Chinese with special emphasis on verbs, grammar, and extension of vocabulary.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 3</td>
<td>Intermediate Chinese</td>
<td>4 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

72 hours lecture

Prerequisite: CHIN 2 or equivalent

Further development of Mandarin Chinese language skills and their use as tools in exploring Chinese civilization. Further study and review of grammar, exercises in word building, derivation, and the extension of the active and recognition vocabularies.

<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>CHIN 4</td>
<td>Continuing Intermediate Chinese</td>
<td>4 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

72 hours lecture

Prerequisite: CHIN 3 or equivalent

Enables students to use Mandarin in traveling, telling stories, describing experiences and discussing Chinese literary works, festivals and food. Students learn advanced grammar such as the directional and potential complements, repetition of adjectives, the focus construction, the ba and bei structures.

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<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 10</td>
<td>Photo Editing with Photoshop</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

54 hours lab

Advisory: COMP 10 or PHOT 4

Basic techniques to adjust and modify photos using Photoshop software tools. Includes digital color theory and photo quality standards; practice photo scan reproduction, resolution and scaling, masking, layer editing and effects, filters, color correction and file formats; output for editing, restoring, and retouching.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 12</td>
<td>Advanced Photo Editing with Photoshop</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

54 hours lab

Prerequisite: GRAP 10

Advanced training in Photoshop editing, color, exposure, sharpness, and contrast enhancement, layer and object masking, vector tools, image compositing, and the uses of blended modes; design of realistic and imaginary photo illustrations using 8- and 16-bit high resolution digital images.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 14</td>
<td>Digital Color Management</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

54 hours lab

Prerequisite: GRAP 10

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 16</td>
<td>Digital Image Design with Illustrator and Freehand</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

54 hours lab

Advisory: COMP 10 or equivalent computer experience

Basic digital image drawing techniques using Adobe Illustrator or Macromedia Freehand. Includes software tools, applying color, using layers, typographic, measurement, and paper systems. Practice importing photo scans, creating layouts, layer animation, choosing fonts, special effects, export file formats, and output in a digital workflow.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAP 18</td>
<td>Advanced Image Design - 3D Modeling Techniques</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

54 hours lab

Prerequisite: GRAP 16

Advanced digital image drawing emphasizing creation of photorealistic 3D models and environments. Principles of perspective, coordinate space, photographic lighting, object animation, photo and video texture mapping, and common techniques for rendering still or animated QuickTime image movies for digital compositing and post-production.

<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>GRAP 20</td>
<td>Applying Photos and Images in Multimedia</td>
<td>3 Units</td>
<td>Degree Applicable</td>
</tr>
</tbody>
</table>

(May be taken for option of letter grade or Pass/No Pass)

36 hours lecture

54 hours lab

Advisory: GRAP 10

Principles of digital storytelling, combining still photos, graphics images, type, video, and audio content output to digital CD or DVD media, video, or Web pages. Commonly used tools and techniques of Apple’s iPhoto, iMovie, iDVD, iTunes, GarageBand, and QuickTime Pro multimedia software, Mac OS X features, and other multimedia software and hardware.
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
<th>Type</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRAP 24 — Work Experience in Computer Graphics</strong></td>
<td>2 Units</td>
<td>Degree Applicable</td>
<td>(May be taken 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>150 hours lab</td>
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<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</td>
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<td>Provides Computer Graphics students with actual on-the-job experience in an approved work setting which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td><strong>GRAP 28 — Digital Portfolio</strong></td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td>Prerequisite: GRAP 12 and GRAP 20</td>
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<td>Preparation of a personal computer graphics portfolio containing key samples of work for presentation or career evaluation. The portfolio displays the learner’s skills mastery, knowledge, and capacities for communicating, synthesis, and problem solving.</td>
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<td></td>
<td></td>
<td><strong>COMPUTER INFORMATION SYSTEMS: AUXILIARY</strong></td>
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<tr>
<td><strong>CISX 94 — Laboratory Studies in Computer Information Systems</strong></td>
<td>1 to 3 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass only)</td>
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<td>54 to 162 hours lab</td>
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<td>Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability</td>
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<td>This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Computer Information Systems.</td>
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<td></td>
<td><strong>COMPUTER INFORMATION SYSTEMS: BEGINNING</strong></td>
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<tr>
<td><strong>CISB 11 — Computer Information Systems</strong></td>
<td>3.5 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td></td>
<td>27 hours lab</td>
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<td></td>
<td>Overview of computer information systems including computer hardware, software, networking, programming, databases, Internet, security, systems analysis, ethics, and problem solving using business applications.</td>
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<td><strong>CISB 13 — Microsoft Windows</strong></td>
<td>2 Units</td>
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<td></td>
<td>27 hours lecture</td>
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<td>27 hours lab</td>
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<td>Hands-on instruction using Microsoft Windows Operating System to manage files, folders, and disks. Includes personalizing the Windows environment and browsing the web using Internet Explorer.</td>
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<td><strong>CISB 15 — Microcomputer Applications</strong></td>
<td>4 Units</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<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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<td><strong>CISB 16 — Macintosh Applications</strong></td>
<td>1.5 Units</td>
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<td>27 hours lecture</td>
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<td></td>
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<td>54 hours lab</td>
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<td>Formerly COMP 10.</td>
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<td>Macintosh computer skills including the operating system and word-processing, database, spreadsheet, and multimedia applications.</td>
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<td><strong>CISB 21 — Microsoft Excel</strong></td>
<td>4 Units</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Spreadsheet concepts using Microsoft Excel including formatting formula and function use, charting, linking worksheets, pivot tables, macros, and VBA code basics.</td>
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<td><strong>CISB 22 — Microsoft Access</strong></td>
<td>3 Units</td>
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<td>54 hours lecture</td>
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<td>Formerly COMP 20.</td>
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<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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<td><strong>CISB 23 — Microsoft PowerPoint</strong></td>
<td>3 Units</td>
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<td>54 hours lecture</td>
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<td>Formerly COMP 30.</td>
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<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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<td><strong>CISB 31 — Desktop Publishing Software</strong></td>
<td>3 Units</td>
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<td>54 hours lecture</td>
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<td>Formerly COMP 60.</td>
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<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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<td><strong>COMPUTER INFORMATION SYSTEMS: DATABASE</strong></td>
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<tr>
<td><strong>CISD 11 — Database Management - Microsoft Access</strong></td>
<td>4 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: COMP 12 or CISB 11 and CISB 15</td>
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<td>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>
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<td><strong>CISD 14 — Advanced Database Management - Microsoft Access</strong></td>
<td>4 Units</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: CISD 11</td>
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<td>Advanced Microsoft Access programming techniques using Visual Basic for Applications (VBA) language; event-driven programming; Access Object Model, Data Access Objects (DAO) model, ActiveX Data Objects (ADO) model; VBA structures, arrays, error handling, multi-user applications, transaction processing, client-server; security issues. Extensive hands-on experience on a Windows-based PC.</td>
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<tr>
<td><strong>CISD 21 — SQL Server</strong></td>
<td>4 Units</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
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<td>54 hours lab</td>
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<td>Advisory: CISD 11 or CISB 15</td>
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<td>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>
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</tbody>
</table>

Section 10
COURSE DESCRIPTIONS

CISD 31 — Database Management - Oracle 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Advisory: CIS 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.

CISD 32 — Oracle Forms and Reports 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Advisory: CISD 31  
Design, creation and implementation of interactive single forms with multiple canvases, multiple forms and reports using PL/SQL triggers, the Object Navigator, and Form and Report Builders. Business reports and interactive forms are created using single and multiple tables.

CISD 40 — Database Design 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: CISD 11  
Database design principles. Understanding database needs and functions, creating data models, entity-relationship (E-R) and Unified Modeling Language (UML) diagrams, using normalization rules and principles to create properly-designed databases, learning basic database administrator objectives and tasks, and understanding the role of data warehousing and data mining.

COMPUTER INFORMATION SYSTEMS: INFORMATION PROCESSING

CISI 11 — Computer Keyboarding 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Formerly COMP 1B.  
Advisory: CISI 11A (formerly COMP 1A) or ability to type 20 wpm with test verification at first class meeting  
Develops 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 of letters, memos, reports, tables and other related business documents.

CISI 11A — Computer Keyboarding 1.5 Units  
(May be taken for option of letter grade or Pass/No Pass)  
27 hours lecture  
Formerly COMP 1A.  
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.

CISI 11B — Computer Keyboarding 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Advisory: CISI 11A or ability to type 20 wpm with test verification at first class meeting  
Formerly COMP 1B.  
Develops straight-copy keyboarding rate of 25-40 gross words a minute with an error limit; includes letters, tables, and reports.

CISI 12 — Intermediate Computer Keyboarding 3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: CISI 11 or CISI 11B (formerly COMP 1 or COMP 1B)  
Formerly COMP 2.  
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 of letters, memos, reports, tables and other related business documents.

CISI 21 — Data Entry 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: CISI 11 or CISI 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.

CISI 41 — Office Management Skills 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Formerly COMP 28.  
Training and skill building in filing systems and procedures, proofreading, telephone techniques, faxing, emailing, and electronic calendaring of events, appointments and meetings.

COMPUTER INFORMATION SYSTEMS: MANAGEMENT

CISM 11 — Systems Analysis and Design 3.5 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
27 hours lab  
Advisory: CISB 15 or COMP 12 and CISB 11  
Covers fundamentals of business information systems, general system solutions and the discipline of systems analysis in relation to the information system life cycle. Develops skills in applying the tools, techniques, and concepts of systems analysis to information systems development.

CISN 11 — Telecommunications/Networking 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Advisory: CISB 11 or CISB 15  
CISN core. Prepare for Cisco CCNA 1st year certification. Covers fundamental concepts and design in telecommunications/networking including: network standards, TCP/IP, OSI, network protocols, transmission media, hardware architecture, local area network, wide area network, remote connectivity, Network operating system (Microsoft Windows, Novell NetWare, and UNIX), troubleshooting, maintaining/upgrading network, network security, vulnerability, and intrusion detection.

CISN 21 — Windows Operating System 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Advisory: CISB 11 or (CISB 15 or COMP 12)  
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.

CISN 24 — Window Server Network and Security Administration 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Advisory: CISB 15 or CISB 11 or CISN 11 or CISN 21  
Active directory security and policy management, server/client installation, DHCP (Dynamic Host Configuration Protocol), DNS (Domain Name Service), file system security, logon script, network printing, web and terminal server, NAT, IPSec and secure VPN.

CISN 31 — Linux Operating System 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Advisory: CISB 11  
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>CISN 34</td>
<td>LINUX Networking and Security</td>
<td>4</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Advisory: CISN 31</td>
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<td></td>
<td>Network installation and management using Linux operating system and its</td>
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<td>security components. In-depth study of concepts TCP/IP, IP addressing,</td>
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<td>network protocols and servers, gateways, routers, bridges and applications.</td>
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<td>Creating Linux intranets and connecting to Internet.</td>
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<td>CISN 51</td>
<td>Cisco CCNA Networking and Routing</td>
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<td></td>
<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: CISN 11 or CISN 24 or CISN 34 or CISN 41</td>
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<td>CNASM (Computer Network Administration and Security Management) A5 degree</td>
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<td>core course. Prepare for Cisco CCNA certification. Cover LAN/WAN (Local/</td>
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<td>Wide Area Network) fundamentals, advanced IP subnet, TCP/IP, IGP, EGP,</td>
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<td>and network design. Configure Cisco IOS, router, switch, VLAN, access list,</td>
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<td>PPP, Frame relay, HDLC, and routing protocols (Static Route, RIP, IGRP,</td>
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<td>EIGRP, and OSPF.</td>
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**COMPUTER INFORMATION SYSTEMS: PROGRAMMING**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>CISP 10</td>
<td>Principles of Object-Oriented Design</td>
<td>2</td>
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<td></td>
<td>27 hours lecture</td>
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<td>27 hours lab</td>
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<td></td>
<td>Object-oriented design, patterns, and use of UML in different programming</td>
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<td>languages that will enable students to build large packages and business</td>
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<td></td>
<td>applications.</td>
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<tr>
<td>CISP 11</td>
<td>Programming in Visual Basic</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: CIS 011 or CIS 15 or computer work experience</td>
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<td></td>
<td>Programming using Visual Basic. Planning and writing object-oriented</td>
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<td>applications using Windows Forms and Web Forms; user interface design classes,</td>
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<td>objects, properties, methods and events; control structures; lists and</td>
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<td>arrays; printing and Print Previews; accessing a database.</td>
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<td>CISP 14</td>
<td>Advanced Visual Basic Programming</td>
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<tr>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: CISP 11</td>
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<tr>
<td></td>
<td>Advanced computer programming concepts using Visual Basic as the</td>
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<td>programming language. Designing, coding, testing, and implementing</td>
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<td></td>
<td>object-oriented multiple tier programs; program design</td>
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<td></td>
<td>using Unified Modeling Language; using data adapters, object linking</td>
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<tr>
<td></td>
<td>and embedding (OLE) objects and dynamic link libraries (DLLs);</td>
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<tr>
<td></td>
<td>incorporating XML, Web forms, and Web services; creating and updating</td>
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<td></td>
<td>sequential and random files; validating input data; trapping errors;</td>
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<tr>
<td></td>
<td>designing, displaying, searching, and updating database tables;</td>
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<td></td>
<td>creating record sets using SQL and database reports using Crystal Reports,</td>
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<td>producing business graphics; using distributing applications; creating</td>
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<td></td>
<td>components, collections, and help files.</td>
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<tr>
<td>CISP 21</td>
<td>Programming in Java</td>
<td>4</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 or CIS 15</td>
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<tr>
<td></td>
<td>Programming using Java as the programming language. Design and develop</td>
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<tr>
<td></td>
<td>object-oriented programs and Web-based applets; documentation and</td>
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<td></td>
<td>debugging techniques; user-interface, objects, properties, methods, events;</td>
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<td></td>
<td>elementary control structures, lists, arrays, streams and serialization.</td>
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<td>Provides students with hands-on experience.</td>
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<tr>
<td>CISP 24</td>
<td>Advanced Java Programming</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: CISP 21</td>
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<td></td>
<td>Advanced object-oriented programming concepts and techniques in Java. Course</td>
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<td></td>
<td>is designed to teach serialization, multithreading, advanced Swing</td>
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<td></td>
<td>components, networking, server-side technology (servlets, remote method</td>
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<td></td>
<td>invocation (RMI), Java server pages), Java Database Connectivity (JDBC),</td>
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<td>JavaBeans, public key infrastructure (PKI) security.</td>
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<tr>
<td>CISP 31</td>
<td>Programming in C++</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Advisory: CISP 11 or CISP 21</td>
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<tr>
<td></td>
<td>Object-oriented programming using C++ as the programming language. Object</td>
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<td></td>
<td>oriented design, documentation, and debugging techniques. Elementary control</td>
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<tr>
<td></td>
<td>structures, classes, overload operators and functions, single and multiple</td>
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<tr>
<td></td>
<td>inheritance.</td>
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<td>CISP 34</td>
<td>Advanced C++ Programming</td>
<td>4</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 31</td>
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<td></td>
<td>Advanced object-oriented programming concepts and principles of</td>
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<td></td>
<td>object-oriented design in C++. Data structures: vectors, linked lists,</td>
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<td></td>
<td>queues, stacks and hash tables. Programs with graphical-user interface.</td>
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<td>Access to a database. Web services.</td>
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<td>CISP 41</td>
<td>Programming in C#</td>
<td>4</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>Advisory: CISP 11 or CISP 15</td>
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<td></td>
<td>Plan, develop and debug C# applications using Windows Forms and Web forms.</td>
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<td>Course covers loops, if statements, switch blocks, database connections,</td>
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<td>multiple forms, object-oriented programming concepts. Course taught in</td>
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<td></td>
<td>hands-on environment and requires projects implementing each concept.</td>
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<tr>
<td>CISP 44</td>
<td>Advanced Programming in C#</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>Advisory: CISP 41 or industry experience in C#</td>
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<td></td>
<td>Advanced programming concepts using C#. Designing, coding, testing and</td>
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<td></td>
<td>implementing object-oriented multi-tier applications; displaying, searching,</td>
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<td></td>
<td>and updating SQL client databases with both Windows Forms and Web Forms;</td>
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<td>creating user controls, Web Services, and container classes; creating help</td>
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<td>files, deploying applications, and developing mobile applications.</td>
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<tr>
<td>CISP 51</td>
<td>Principles of Object-Oriented Design</td>
<td>2</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>Advisory: CISP 11 or CISP 21 or CISP 31</td>
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<tr>
<td></td>
<td>Provides instruction in object-oriented design and patterns, vital concepts</td>
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<td>for object-oriented programming language. Includes object-oriented design,</td>
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<td>patterns and UML within programming that will enable students to build large</td>
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<td>packages and business applications.</td>
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## Course Descriptions

### COMPUTER INFORMATION SYSTEMS: SECURITY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CISS 11</td>
<td>Practical Computer Security</td>
<td>2</td>
<td>Introductory course in computer security. Provides awareness for all</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>computer users to protect user accounts and computer systems from computer</td>
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<td></td>
<td></td>
<td></td>
<td>attacks. Projects illustrate security software and hardware configuration.</td>
</tr>
<tr>
<td>CISS 13</td>
<td>Principles of Information Systems Security</td>
<td>4</td>
<td>Different operating systems (Windows, Unix etc.)</td>
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<td></td>
<td></td>
<td>Team-oriented practice installing and setting-up security in computer</td>
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<td></td>
<td></td>
<td></td>
<td>and network systems. Includes hands-on activities defending,</td>
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<td></td>
<td></td>
<td></td>
<td>responding, mitigating, and analyzing security attacks along with</td>
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<td></td>
<td></td>
<td></td>
<td>preparing written reports documenting how the system was defended.</td>
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<tr>
<td>CISS 15</td>
<td>Operating Systems Security</td>
<td>4</td>
<td>Network vulnerabilities from a hacker's perspective and ethical and</td>
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<td>legal issues associated with computer network attacks. Includes written</td>
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<td>security, use, and instance response policies, scanning and penetration</td>
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<td></td>
<td></td>
<td>tests, vulnerability assessments and countermeasures for Windows and</td>
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<td></td>
<td>Linux operating systems, secured programming, Virtual Private Network</td>
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<td></td>
<td></td>
<td>(VPN), cryptography, wireless, Web, and remote access securities. Also</td>
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<td></td>
<td></td>
<td>includes GIAC Certified Incident Handler certification preparation.</td>
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<tr>
<td>CISS 21</td>
<td>Network Vulnerabilities and Countermeasures</td>
<td>4</td>
<td>Network security by implementing and configuring firewalls,</td>
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<td></td>
<td>DMZ, and VPNs for enterprise, medium, and small businesses. Includes</td>
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<td></td>
<td>designing, installing, configuring, maintaining, troubleshooting, and</td>
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<td></td>
<td>monitoring firewall solutions by Cisco and other leading firewall</td>
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<td></td>
<td></td>
<td></td>
<td>manufacturers.</td>
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<tr>
<td>CISS 22</td>
<td>Network Analysis - Intrusion Detection/Prevention Systems</td>
<td>4</td>
<td>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.</td>
</tr>
<tr>
<td>CISS 25</td>
<td>Network Security and Firewalls</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td></td>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Design secure networks by implementing and configuring firewalls,</td>
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<td>DMZ, and VPNs for enterprise, medium, and small businesses. Includes</td>
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<td>designing, installing, configuring, maintaining, troubleshooting, and</td>
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<td>monitoring firewall solutions by Cisco and other leading firewall</td>
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<td>manufacturers.</td>
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<tr>
<td>CISS 27</td>
<td>Defending Computer Systems</td>
<td>1</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>54 hours lab</td>
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<td></td>
<td></td>
<td>Team-oriented practice installing and setting-up security in computer</td>
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<td></td>
<td></td>
<td></td>
<td>and network systems. Includes hands-on activities defending,</td>
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<td></td>
<td>responding, mitigating, and analyzing security attacks along with</td>
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<td></td>
<td>preparing written reports documenting how the system was defended.</td>
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### COMPUTER INFORMATION SYSTEMS: WEB APPLICATIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>CISW 11</td>
<td>Introduction to Internet Technologies</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
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<td></td>
<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td></td>
<td>Overview of Internet concepts and how to use Internet technologies</td>
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<td>securely, including: email, World Wide Web, chat, instant messaging,</td>
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<td>voice over IP, searching the Internet, file-sharing, streaming media,</td>
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<td>creating Web pages and Web sites, blogging, podcasting, wikis, RSS,</td>
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<td>social networking, multiplayer gaming, and e-commerce.</td>
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<tr>
<td>CISW 15</td>
<td>Web Site Development</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td></td>
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<td></td>
<td>Use of a professional visual Web-authoring application to plan, develop,</td>
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<td>implement, publish and maintain Web sites. Includes working with text and</td>
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<td>images, internal and external hyperlinks, image maps, tables, Cascading</td>
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<td>Style sheets, Web page content, Web forms, multimedia objects (Flash text,</td>
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<td>Flash buttons, sounds, and video), interactions and behaviors, and Web page</td>
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<td>templates. Principles of Web site structures, documentation, management,</td>
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<td></td>
<td>and maintenance will be discussed.</td>
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<tr>
<td>CISW 21</td>
<td>Secure Web Programming with ASP.NET</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td></td>
<td>Acquire secure programming skills for designing user interfaces,</td>
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<td>processing user input, and accessing Web servers and databases. Use</td>
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<td>secure coding techniques with Web programming, scripting and markup</td>
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<td>languages like XHTML, Dynamic HTML, CSS, XML, Javascript, AJAX,</td>
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<td>AS / NET with VB.NET.</td>
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<tr>
<td>CISW 22</td>
<td>Secure Server Side Web Programming</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td>Secure web programming by creating user interfaces, extracting</td>
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<td>information and managing databases, managing files, report</td>
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<td>formatting, and accessing web servers by using PERL, Python, Ruby or any</td>
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<td></td>
<td>Web scripting or programming language.</td>
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<tr>
<td>CISW 31</td>
<td>Secure Web Servers</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td></td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td></td>
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<td></td>
<td>Plan, install and manage secure Web servers like Apache using server</td>
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<td>side programming language like PHP, Python or Ruby to access, manage,</td>
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<td></td>
<td>and secure databases. Course topics include Web server security using</td>
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<td>firewalls, authentication, and SSL, database installation and</td>
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<td>configuration, running and securing e-commerce sites.</td>
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<tr>
<td>CISW 41</td>
<td>XML Secure Programming</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>Use of a professional visual Web-authoring application to plan, develop,</td>
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<td>implement, publish and maintain Web sites. Includes working with text and</td>
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<td>images, internal and external hyperlinks, image maps, tables, Cascading</td>
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<td>Style sheets, Web page content, Web forms, multimedia objects (Flash text,</td>
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<td>Flash buttons, sounds, and video), interactions and behaviors, and Web</td>
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<td>page templates. Principles of Web site structures, documentation,</td>
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<td>management, and maintenance will be discussed.</td>
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<tr>
<td>CISW 49</td>
<td>Service Oriented Architecture Concepts and Practice</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
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<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals, definitions, standards and case studies of Service</td>
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<td></td>
<td>Oriented Architecture (SOA) including design elements and design</td>
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<td></td>
<td></td>
<td></td>
<td>principles, and concepts and examples of service-oriented computing and</td>
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<td></td>
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<td></td>
<td>the principle of service-orientation.</td>
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</tbody>
</table>
### COMPUTER SCIENCE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 110</td>
<td>Fundamentals of Computer Science</td>
<td>3.5</td>
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</tr>
</tbody>
</table>

54 hours lecture  
27 hours lab  
Prerequisite: MATH 71 or MATH 71B or equivalent  
Advisory: Eligibility for ENGL 1A  
Basic concepts of computer hardware and software. General computer organization and information representation. Binary and hexadecimal number systems. Algorithm design and problem-solving techniques. Introduction to programming using a high-level language (C, C++ or Java.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>CSCI 140</td>
<td>C++ Language and Object Development</td>
<td>4</td>
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</tbody>
</table>

54 hours lecture  
54 hours lab  
Prerequisite: CSCI 110 or equivalent programming experience  
For computer science, mathematics, engineering and other science students. Introduction to C++ programming and object-oriented paradigm. Control structures, functions, arrays, pointers and strings, classes and data abstraction, C++ object programming, operator overloading, inheritance, virtual functions and polymorphism, stream input and output, templates, exception handling, file processing. Introduction to data structures in C++, string processing and recursion.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>CSCI 145</td>
<td>Java Language and Object Oriented Programming</td>
<td>4</td>
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</tr>
</tbody>
</table>

54 hours lecture  
54 hours lab  
Prerequisite: CSCI 110  
Introduction to Java language and object oriented programming with Java as well as general concepts and techniques of computer programming. Topics include: Java expressions, flow control, methods and program structure, Java classes, overloading, object references, inheritance, Java library packages, exceptions, file I/O, applets, GUI, and event handling. A course for computer science, engineering, mathematics, and other science students.

<table>
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<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>CSCI 150</td>
<td>Assembly Language/Machine Architecture</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

54 hours lecture  
Prerequisite: CSCI 110  
Corequisite: CSCI 150L  
Organization and operation of real computer systems at the assembly language level using the Intel 80x86 family of processors; mapping statements and constructs in a high-level language onto sequences of machine instructions; internal representations of simple data types and structures; numerical computation, noting various data representation errors and potential procedural errors; investigation of basic principles of operating systems; and programming language translation process.

### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 150L</td>
<td>Assembly Language Laboratory</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

(May be taken for Pass/No Pass only)  
54 hours lab  
Corequisite: CSCI 150  
Advisory: CSCI 140; language experience programming general and scientific algorithms and data structures in C++ or Java strongly recommended  
Complements the lecture material in CSCI 150. Development/debugging of assembly language programs.

<table>
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<tr>
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<th>Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CSCI 170</td>
<td>Introduction to Unix Operating System</td>
<td>3.5</td>
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</tr>
</tbody>
</table>

54 hours lecture  
27 hours lab  
Prerequisite: Completion of CSCI 110  
Introduction to the UNIX operating system, system administration and networking. Topics include: process synchronization and communication mechanisms, process management, scheduling and protection, memory organization and management, virtual memory, I/O devices management, file systems, networking, system administration for UNIX.

<table>
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</thead>
<tbody>
<tr>
<td>CSCI 190</td>
<td>Discrete Mathematics Applied to Computer Science</td>
<td>4</td>
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</tbody>
</table>

72 hours lecture  
Prerequisite: MATH 71 or equivalent  
Provides students with the mathematical background necessary in Computer Science: set theory, logic, modular arithmetic, combinatorics, finite probability and graphs. Topics include propositional and predicate calculus, recursion, binary search trees and counting techniques.

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</thead>
<tbody>
<tr>
<td>CSCI 210</td>
<td>Applied Logic for Computers</td>
<td>3</td>
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</tbody>
</table>

54 hours lecture  
Prerequisite: CSCI 110  
Provides students with the mathematical background necessary in Computer Science: set theory, logic, modular arithmetic, combinatorics, finite probability and graphs. Topics include propositional and predicate calculus, recursion, binary search trees and counting techniques.

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</thead>
<tbody>
<tr>
<td>CSCI 220</td>
<td>Data Structures I</td>
<td>3</td>
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</tbody>
</table>

54 hours lecture  
Prerequisite: CSCI 140 or CSCI 145  
Corequisite: CSCI 220L  
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.

<table>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CSCI 230L</td>
<td>Data Structures II Laboratory</td>
<td>1</td>
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</tbody>
</table>

(May be taken for Pass/No Pass only)  
54 hours lab  
Corequisite: CSCI 220  
An independent study program designed to complement the lecture material presented in CSCI 220, Data Structures I. Hands-on computer work will include problem solving in linear data structures, strings, and trees.

<table>
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<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>CSCI 230</td>
<td>Data Structures II</td>
<td>3</td>
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</tr>
</tbody>
</table>

54 hours lecture  
Prerequisite: CSCI 220  
Corequisite: CSCI 230L  
Basic searching/sorting algorithms, hashing, graphs, memory/disk management, B-trees, advanced tree structures and analysis.

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<tr>
<th>Course Code</th>
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<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
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</thead>
<tbody>
<tr>
<td>CNET 50</td>
<td>PC Servicing</td>
<td>4</td>
<td></td>
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</tbody>
</table>

54 hours lecture  
54 hours lab  
Advisory: ELEC 50B taken prior or concurrently  
PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software configurations, software diagnostics, and the use of test equipment.

<table>
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<tr>
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<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNET 52</td>
<td>PC Operating Systems</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

54 hours lecture  
54 hours lab  
Advisory: CNET 50 taken prior  
Current operating systems required for A+ and Network+. Certification and general computer servicing. Topics include: identification of major components, installation, configuration, upgrading and troubleshooting.
### COURSE DESCRIPTIONS

**CNET 64 — PC Troubleshooting**  
4 Units  
Degree Applicable  
54 hours lecture  
54 hours lab  
Advisory: CNET 50 taken prior  
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.

**CNET 66 — Security + Certification Preparation**  
3 Units  
Degree Applicable  
36 hours lecture  
54 hours lab  
Advisory: CNET 56 taken prior  
Prepares the computer/network service technician for the CompTIA sponsored Security+ Certification examination. Security information is covered only as it pertains to enabling the service technician to troubleshoot a computer system that may have a security problem.

### CORRECTIONAL SCIENCES

**CORS 10 — Introduction to Correctional Sciences**  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Overview of the field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as a member of the Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.

**CORS 15 — Control and Supervision of the Offender**  
3 Units  
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  
(May be taken for Pass/No Pass only)  
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.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN 20</td>
<td>Peer Counselor Training</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
<td>Prerequisite: Eligibility for ENGL 6B</td>
</tr>
<tr>
<td>COUN 51</td>
<td>Career Planning</td>
<td>1 Unit</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken for Pass/No Pass only)</td>
</tr>
<tr>
<td>COUN 54</td>
<td>Single Parent Academy</td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td>18 hours lecture</td>
</tr>
<tr>
<td>COUN 99A</td>
<td>Special Projects in Counseling</td>
<td>1 to 2 Units</td>
<td>Degree Applicable, CSU</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 1</td>
<td>Ballet Fundamentals</td>
<td>.5 to 2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 2A</td>
<td>Ballet I</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 2B</td>
<td>Ballet II</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 3</td>
<td>Ballet Performance</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 4</td>
<td>Choreography</td>
<td>.5 to 2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 11A</td>
<td>Social Dance Forms I</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 11B</td>
<td>Social Dance Forms II</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 12A</td>
<td>Modern I</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 12B</td>
<td>Modern II</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 13</td>
<td>Modern Performance</td>
<td>.5 to 2 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
<tr>
<td>DNCE 14A</td>
<td>Jazz I</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit)</td>
</tr>
</tbody>
</table>

**DANCE: ACTIVITY**

- **DNCE 1** — Ballet Fundamentals: 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: Basic vocabulary, technique, and movement combinations for ballet. Students who repeat this course will improve proficiency through continued instruction and practice.
- **DNCE 2B** — Ballet II: Intermediate technique, vocabulary and movement combinations of ballet. Students who repeat this course will improve proficiency through continued instruction and practice.
- **DNCE 3** — Ballet Performance: Introduces the experienced dance student to the performance aspect of ballet. Provides the opportunity to develop the ability to analyze form leading to composition of advanced movement combinations. Students who repeat this course will improve proficiency through continued instruction and practice.
- **DNCE 4** — Choreography: Designed for the experienced dancer to learn the techniques of choreography. Presents basic choreographic forms and compositional design. Students who repeat this course will improve technical and compositional skills through further practice and instruction.
- **DNCE 11A** — Social Dance Forms I: Designed to teach basic social dance techniques. Focus on fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to, Swing, Salsa, Foxtrot, Waltz, Folk, Polka, Cha Cha and Tango. Students who repeat this course will improve skills through further instruction and practice.
- **DNCE 11B** — Social Dance Forms II: Advanced social dance technique. Focus on improving fundamentals of rhythm, dance positions, dance formations and introduction of advanced techniques to be used in the study of, but not limited to, Swing, Salsa, Foxtrot, Waltz, Folk, Polka, Cha Cha and Tango.
Course Descriptions

DNCE 18B — Tap 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
Introduces technique, movement combinations and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.

DNCE 18A — Tap II .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
Presents basic 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 four times for credit)
(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 20 — Theater Dance 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
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 21 — Theater Dance II .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 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 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 23 — 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
Provides the opportunity 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 30 — Contemporary 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 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 39A — Alignment and Correctives I  .5 to 1 Unit
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
36 to 54 hours lab
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
(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 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
(May be taken four times for credit)
(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.

DANCE: THEORY

DN T 18 — Introduction to Dance  3 Units
Degree Applicable, CSU, UC
(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.

DN T 20 — History and Appreciation of Dance  3 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
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 multi-cultural dance interpretations.

DISABLED STUDENTS

DSPS 10 — College Transition Strategies for Students with Disabilities  3 Units
Not Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Advisory: Eligibility for READ 80
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.

DSPS 15 — Personalized Career Exploration for Students with Disabilities  1 Unit
Not Degree Applicable
(May be taken four times for credit)
18 hours lecture
Self-evaluation including interests, experiences, personality, values, and disability-related limitations as they relate to educational and career decisions. Identification of skills and resources, including those that relate to disability factors. Students who repeat this course will improve skills through further instruction and practice.

DSPS 16 — Educational and Career Options for Students with Disabilities  1 Unit
Not Degree Applicable
(May be taken four times for credit)
18 hours lecture
Students will identify educational and career options. Emphasis on strategies that facilitate disability-sensitive career and educational planning. Barriers to employment and other disability issues are addressed. Students who repeat this course will improve skills through further instruction and practice.

DSPS 20 — Improving Spelling and Reading of Words  3 Units
Not Degree Applicable
(May be taken four times for credit)
54 hours lecture
Improve reading and spelling skills for multi-syllabic words. Includes sounding letters, oral movements, and common “rules” for reading and spelling words. Students who repeat this course will improve skills through further instruction and practice.

DSPS 30 — Academic Success Strategies for Students with Disabilities  1 Unit
Not Degree Applicable
(May be taken four times for credit)
54 hours lecture
Advisory: Concurrent enrollment in ENGL 67 or above, or MATH 50 to MATH 130
Strategies for academic success in relationship to disabilities. Primary emphasis will be on the effects of and strategies for auditory processing, language expression, memory, fluid reasoning and performance speed. Secondary emphasis will be on strategies to improve subject-specific performance. Students who repeat this course will improve skills through further instruction and practice.

DSPS 31 — Memory Strategies for Students with Disabilities  3 Units
Not Degree Applicable
(May be taken four times for credit)
54 hours lecture
Advisory: Eligibility for READ 80. Student should have at least one other academic class for application of strategies.
Principles of the memory process as it applies to academic coursework. Focus on understanding the memory process, improving specific memory components, identifying key concepts to memorize, and the independent application of memory strategies to students’ other academic courses. Students who repeat this course will improve skills through further instruction and practice.
Students with Learning Disabilities can improve their reading comprehension and written expression as applied to assignments in academic classes through the use of technology. A variety of strategies using technology will be introduced to students that will aid them in understanding and learning reading assignments and in expressing their ideas in written assignments. They will select several strategies for more in-depth use and will apply them functionally in academic classes. Concurrent enrollment in an academic class that requires reading and writing is advised.

### Course Descriptions

**DSPS 32 — Technology for Students with Learning Disabilities** 3 Units
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
54 hours lecture
Advisory: Eligibility for ENGL 67 or AMLA 42W and READ 80 or AMLA 32R.
Concurrent enrollment in an academic class that requires reading and writing.

**EDUC 10 — Introduction to Education** 3 Units
54 hours lecture
Introduction to the field of education for students interested in teaching at the elementary or secondary level. Principles and issues are explored including history, philosophy, politics of education, needs of learners, and educational specialization. Course includes guidance in the selection of a future area of specialization. K-12 classroom observations required.

**EDUC 16 — Aspects and Issues in Teaching Service Learning** 3 Units
54 hours lecture
Advisory: Eligibility for ENGL 68
Survey of the teaching profession, providing students opportunities to explore aspects of the career, including teaching and learning styles, state content standards and testing, recent California and national legislation, social issues, school funding and teacher rights and responsibilities.

**ELECTRONICS**

**ELEC 10 — Introduction to Mechatronics** 2 Units
18 hours lecture
54 hours lab
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.

**ELEC 11 — Technical Applications in Microcomputers** 3 Units
36 hours lecture
54 hours lab
Use of the personal computer (PC) in electronics for technically related applications. Includes word processing, spreadsheets, database, computer presentation methods, e-mail, and job search.

**ELEC 12 — Computer Simulation and Troubleshooting** 2 Units
18 hours lecture
54 hours lab
Advisory: ELEC 51, ELEC 56 taken prior
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.

**ELEC 50A — Electronic Circuits (DC)** 4 Units
54 hours lecture
54 hours lab
Advisory: Eligibility for Math 51; ELEC 61 taken concurrently
Direct Current (DC) electrical circuits and their applications. Covers DC sources, analysis, test equipment, measurements, and troubleshooting of resistive devices and other basic components. Includes Ohm's Law, Kirchhoff's law, and network theorems. (Students seeking a survey course in electronics should take ELEC 10, Introduction to Mechatronics, rather than ELEC 50A or 50B.)

**ELEC 50B — Electronic Circuits (AC)** 4 Units
54 hours lecture
54 hours lab
Advisory: ELEC 51 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 dekels.

**ELEC 51 — Electronic Devices** 4 Units
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
54 hours lecture
54 hours lab
Advisory: ELEC 51 taken prior
Analog and digital communications circuits. Emphasizes analog and digital modulation principles in AM, FM, SS, PLL, FDM, TDM, modems, fiber optics, and telecommunications circuits. Includes multiplexing, antennas, and signal propagation.

**ELEC 54A — Industrial Electronics** 4 Units
54 hours lecture
54 hours lab
Advisory: ELEC 51 taken prior
Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and LJT devices.

**ELEC 54B — Industrial Electronic Systems** 3 Units
36 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
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. Stressess Gunn diode oscillators, transmission lines, waveguides, Smith Charts, components, amplification, frequency analysis, and measurement techniques.

**ELEC 56 — Digital Electronics** 4 Units
54 hours lecture
54 hours lab
Microwave components and circuits and their applications with emphasis on satellite technology, including radar, GPS, and others. Stressess Gunn diode oscillators, transmission lines, waveguides, Smith Charts, components, amplification, frequency analysis, and measurement techniques.
ELEC 61 — Electronic Assembly and Fabrication  2 Units  Degree Applicable, CSU
18 hours lecture
54 hours lab
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.

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
Advanced course in assembly and repair (soldering) on surface mount assemblies. Prepares for the IPC surface mount assembly and rework certifications.

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 66 — Electrical Code-Residential  3 Units  Not Degree Applicable
54 hours lecture
Advisory: ELEC 54 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 part of the California State Contractors C-10 Electrician license exam.

ELEC 74 — Microprocessor Systems  4 Units  Degree Applicable, CSU
54 hours lecture
54 hours lab
Advisory: ELEC 56 taken prior
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).

ELEC 76 — Radio Telephone Communications  3 Units  Not Degree Applicable
54 hours lecture
Prepares qualified electronic technicians for the FCC and/or NARTE commercial licenses for technicians and engineers in the communications field.

ELEC 81 — Laboratory Studies in Electronics Technology  1 to 2 Units  Degree Applicable
(May be taken four times for credit)
54 to 108 hours lab
Advisory: ELEC 50B taken prior or concurrently
Extended laboratory experience supplementary to that available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.

ELEC 91 — Work Experience in Electronics  1 to 4 Units  Degree Applicable
(May be taken four times for credit)
 Prefer to take, but not for credit
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
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 (30 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

ELECTRONICS SYSTEMS TECHNOLOGY

EST 50 — Electrical Fundamentals for Cable Installations  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Electrical fundamentals for cable and wire installations, and other low voltage systems. Includes DC/AC, solid-state devices, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 52 — Fabrication Techniques for Cable Installation  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage system applications. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 54 — Cabling and Wiring Standards  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 50, EST 52
Cable and wire standards of video, voice, and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 56 — Home Theater, Home Integration and Home Security Systems  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 54
Home theater, home integration, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming, and the installation and servicing of such systems. Prepares students for the California State Contractors C-7 low voltage systems license.

EST 62 — Electronic Troubleshooting-I  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 56
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater, audio (Dolby 5.1), and video circuits (analog TV).

EST 64 — Electronic Troubleshooting - II  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Advisory: EST 62
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

EST 70 — C-7 Low Voltage Systems License Preparation  2 Units  Degree Applicable
36 hours lecture
Advisory: EST 56 or ECWT 56 taken prior
Prepares for the California State Contractors C-7 Low Voltage Systems license examination. Students who repeat this course will improve skills through further instruction and practice.
### Course Descriptions

#### EMERGENCY MEDICAL SERVICE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 1</td>
<td>Fundamentals for Paramedics</td>
<td>4</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Completed Paramedic Program application, current California EMS 1 (Basic) certificate, and six months employment as an EMT 1. Advisory: Eligibility for ENGR 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.</td>
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<tr>
<td>EMS 10</td>
<td>Anatomy and Physiology for Paramedics</td>
<td>2</td>
<td>Degree Applicable</td>
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<td></td>
<td>39 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>EMS 20</td>
<td>Emergency Cardiac Care for Paramedics</td>
<td>1</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>20 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60. Certifies paramedics in Basic Life Support (BLS-CPR), Pediatric Advanced Life Support (PALS), and Advanced Cardiac Life Support (ACLS).</td>
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<tr>
<td>EMS 30</td>
<td>Pharmacology for Paramedics</td>
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<td>Degree Applicable</td>
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<tr>
<td></td>
<td>39 hours lecture</td>
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<tr>
<td></td>
<td>13 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, 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.</td>
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<tr>
<td>EMS 40</td>
<td>Cardiology for Paramedics</td>
<td>5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>91 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60. Familiarizes the paramedic with the normal and the diseased heart; includes assessment tools, interpretation of various dysrythmias and appropriate paramedic interventions.</td>
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<tr>
<td>EMS 50</td>
<td>Paramedic Skills Competency</td>
<td>5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td>Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 60. Perfect the paramedic skills required for field operation as a paramedic and for certification in competency-based exams.</td>
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<tr>
<td>EMS 60</td>
<td>EMS Theory for Paramedics</td>
<td>8.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>156 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to the Paramedic Program</td>
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<td></td>
<td>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.</td>
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<tr>
<td>EMS 70</td>
<td>Paramedic Clinical Internship</td>
<td>4</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>215 hours lab</td>
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<td>Prerequisite: EMS 1</td>
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<td></td>
<td>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.</td>
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<tr>
<td>EMS 80</td>
<td>Paramedic Field Internship</td>
<td>9.5</td>
<td>Degree Applicable</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>479 hours lab</td>
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<td></td>
<td>Prerequisite: EMS 1 and Successful completion of Los Angeles County accreditation exam. Corequisite: EMS 70 (may have been taken previously). Application of concepts of paramedic theory and practices, with emphasis on patient assessment and utilization of paramedic skills in a field setting on an operational paramedic unit.</td>
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#### EMERGENCY MEDICAL TECHNICIAN

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 90</td>
<td>Emergency Medical Technician I</td>
<td>10.5</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>135 hours lecture</td>
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<tr>
<td></td>
<td>135 hours lab</td>
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<td></td>
<td>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>
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<tr>
<td>EMT 91</td>
<td>Emergency Medical Technician I Refresher</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>40 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Completion of a State or County Department of Health (or out-of-state) approved course and possession of a currently valid EMT-I certificate or one which has expired for no more than 20 months. 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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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGR 1</td>
<td>Introduction to Engineering</td>
<td>1</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>
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<tr>
<td></td>
<td>Introduction to the engineering profession; academic requirements; articulation agreements with four-year institutions; engineering ethics; professional engineering license; engineering study as a preparation for other careers; academic success strategies.</td>
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<tr>
<td>ENGR 8</td>
<td>Properties of Materials</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>
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<td>Mechanical, electrical, magnetic, optical and thermal properties of engineering materials and their relation to the materials’ internal structure. Atomic structure and bonding; crystalline structures; phase and phase diagrams; metals; polymers; ceramics; composites; mechanical deformation and fracture; structural control and influence of properties; materials naming and designating systems; corrosion process; lasers; semiconductors; electronic packaging materials.</td>
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<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Units</td>
<td>Notes</td>
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<tr>
<td>ENGR 18</td>
<td>Introduction to Engineering Graphics</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
<td></td>
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<td>ENGR 24</td>
<td>Engineering Graphics</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<tr>
<td>ENGR 40</td>
<td>Statics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: PHYS 4A</td>
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<tr>
<td>ENGR 44</td>
<td>Electrical Engineering</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<tr>
<td>ENGR 18</td>
<td>Introduction to Engineering Graphics</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>ENGR 18 and eligibility for MATH 51</td>
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<td>Advisory: CSB 15</td>
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<td>EDT 11</td>
<td>Technical Engineering Drawing I</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>
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<td></td>
<td>72 hours lab</td>
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<tr>
<td>EDT 12</td>
<td>Technical Engineering Drawing II</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td></td>
<td>36 hours lecture</td>
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<td>72 hours lab</td>
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<tr>
<td>EDT 14</td>
<td>Mechanical Design - Geometric Dimensioning and Tolerancing</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>72 hours lab</td>
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### ENGINEERING DESIGN TECHNOLOGY

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<th>Course Name</th>
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<tbody>
<tr>
<td>EDT 10</td>
<td>Basic CAD and Computer Applications</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>EDT 16</td>
<td>Engineering CAD Applications</td>
<td>4</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<td>54 hours lab</td>
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<td>EDT 20</td>
<td>Technical Descriptive Geometry</td>
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<td>Degree Applicable, CSU</td>
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<td>36 hours lecture</td>
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<td>72 hours lab</td>
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<tr>
<td>EDT 22</td>
<td>Engineering CAD 3-D Solids and Surfaces</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>36 hours lecture</td>
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<tr>
<td></td>
<td>72 hours lab</td>
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<td>EDT 24</td>
<td>Civil Engineering Technology and CAD</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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<tr>
<td></td>
<td>72 hours lab</td>
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<td>Advisory: EDT 11, EDT 12</td>
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<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>
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</tbody>
</table>
Course Descriptions

EDT 28 — Engineering CAD Illustration/Animation 3 Units
Degree Applicable, CSU
36 hours lecture
72 hours lab
Advisory: EDT 18
Advanced CAD course in three-dimensional illustration using complex entities, shading, and animation techniques. A completed video portfolio will be developed. (SolidWorks, 3DS Max, Adobe PS).

EDT 89 — Engineering Design Technology 1 to 2 Units
Work Experience Degree Applicable
(May be taken four times for credit)
(May be taken for Pass/No Pass only)
75 to 150 hours lab
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides on-the-job experience in Engineering Design Technology at an approved work site using skills and knowledge from classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving advanced standing (minimum 12 units in major or equivalent experience.) Students who repeat this course will improve skills through further instruction and practice.

ENGLISH: COMPOSITION

ENGL 1A — freshman Composition 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: ENGL 68 or satisfactory score on the English Placement Test
Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material.

ENGL 1AH — freshman Composition - Honors 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: Acceptance into the Honors Program
Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1A and ENGL 1AH.

ENGL 1B — English - Introduction to Literary Types 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Critical, oral and written evaluation, analysis, and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth.

ENGL 1BH — English - Introduction to Literary Types - Honors 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program
Critical, oral, and written evaluation, analysis and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1B and ENGL 1BH.

ENGL 1C — Critical Thinking and Writing 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Develops critical thinking, reading, and writing skills beyond the level achieved in ENGL 1A. Increases the student’s capacity for logical analysis and argumentative writing.

ENGL 1CH — Critical Thinking and Writing - Honors 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program
Develops critical thinking, reading, and writing skills beyond the level achieved in ENGL 1A. The course will increase the student’s capacity for logical analysis and argumentative writing. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1C and ENGL 1CH.

ENGL 1D — Creative Writing - Fiction 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Elements, processes, and techniques of fiction writing. Includes genre, settings, point of view, character sketch, plot development, description, and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.

ENGL 1E — Creative Writing - Poetry 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1A or ENGL 1AH
Elements, processes, and techniques of poetry writing. Includes theme, imagery, line breaks, diction, and prosody, with an emphasis on student development as a poet.

ENGL 1F — Creative Writing - Memoir 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1E
Analysis and writing of creative nonfiction including poetic, essayistic, and syntactic forms and composition strategies used when writing memoir.

ENGL 1G — Creative Writing - Nonfiction 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 1D
Analysis and writing of creative nonfiction including poetic, essayistic, and syntactic forms and composition strategies used when writing creative nonfiction.

ENGL 1H — Writing the Personal Journal 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ENGL 1A
Critical, oral, and written evaluation, analysis and interpretation of short and long fiction, poetry, and drama. Develops a foundation for personal, cultural, and intellectual growth. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1B and ENGL 1BH.

ENGL 8A — Creative Writing - Memoir 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 8B
Elements, processes, and techniques of memoir writing. Includes genre, settings, point of view, character sketch, plot development, description, and dialogue with an emphasis on student development as a creator of memoir.

ENGL 8B — Creative Writing - Memoir 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 8A
Elements, processes, and techniques of memoir writing. Includes genre, settings, point of view, character sketch, plot development, description, and dialogue with an emphasis on student development as a creator of memoir.

ENGL 8C — Creative Writing - Novel 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 8A
Elements, processes, and techniques of novel writing. Includes genre, settings, point of view, character sketch, plot development, description, and dialogue with an emphasis on student development as a writer of novels through practice and discussion.

ENGL 8D — Creative Writing - Poetry Collection 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 8B
Elements, processes, and techniques of poetry writing. Includes theme, imagery, line breaks, diction, and prosody, with an emphasis on student development as a poet.

ENGL 8E — Creative Writing - Poetry Collection 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 8D
Elements, processes, and techniques of poetry writing. Includes theme, imagery, line breaks, diction, and prosody, with an emphasis on student development as a poet.

ENGL 8F — Creative Writing - Nonfiction 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 8E
Analysis and writing of creative nonfiction including poetic, essayistic, and syntactic forms and composition strategies used when writing creative nonfiction.

ENGL 8G — Creative Writing - Poetry Collection 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: ENGL 8F
Elements, processes, and techniques of poetry writing. Includes theme, imagery, line breaks, diction, and prosody, with an emphasis on student development as a poet.

ENGL 9 — Writing the Personal Journal 3 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: Eligibility for ENGL 1A
Personal exploration, development of creativity, increased comfort with the writing process, and expanded awareness of others? lives through journal writing. Journal methods will be patterned after Dr. Ira Progoff's concept of creativity and growth as well other approaches to journal writing.
ENGL 64 — Writing Effective Sentences 1 Unit
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
Prerequisite: Eligibility for ENGL 67
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.

ENGL 65 — Grammar Review 1 Unit
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
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.

ENGL 66 — Paragraph Writing 1 Unit
(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
(May be taken for option of letter grade or Pass/No Pass)
Prerequisite: Satisfactory score on the English Placement Test or completion of AMLA 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 comprehension in conjunction with related writing.

ENGL 68 — Preparation for College Writing 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 of and writing about increasingly complex texts.

ENGL 75 — Vocabulary Building 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ENGL 68 or passing score on current placement test
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
(May be taken for option of letter grade or Pass/No Pass)
54 lecture
Prerequisite: ENGL 1A
Introductory course in language structure, linguistics, language development. Explores first and second-language acquisition. Meets the Commission on Teaching Credentialing standards for Language Acquisition requirement for elementary school teaching credential.

ENGL 99 — Special Projects in English 2 Units
(May be taken for option of letter grade or Pass/No Pass)
36 lecture
Prerequisite: ENGL 1A
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.

LIT 1 — Early American Literature 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 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
(May be taken for option of letter grade or Pass/No Pass)
54 lecture
Prerequisite: ENGL 1A
Emphasizes characteristic 20th century concerns such as identity and cultural diversity, the American Dream, the effects of industrial and technological development, human isolation and alienation, and examines the impact of these concerns on American literary form and on America’s cultural mythology.

LIT 3 — Multicultural American Literature 3 Units
Degree Applicable, CSU, UC
54 lecture
Prerequisite: ENGL 68 or passing score on current placement test
Analyzes the representative contributions of three or four diverse groups to American literature and culture. Covering a wide spectrum of historical periods and literary genres, the course will focus on issues of ethnic identity, assimilation, acculturation, cultural pluralism, and family and gender roles in order to heighten awareness of diversity in America. Representative literature groups may include African American, Hispanic American, Native American, Asian American, Gay and Lesbian American, disability groups and religious groups.

LIT 6A — Survey of English Literature 3 Units
Degree Applicable, CSU, UC
54 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
54 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
54 lecture
Prerequisite: ENGL 1A
A survey of Shakespeare’s histories, tragedies, comedies, and selected sonnets with their historical and literary context, emphasizing their relevance to contemporary culture and values.

LIT 11A — World Literature 3 Units
Degree Applicable, CSU, UC
54 lecture
Prerequisite: ENGL 1A
Works and ideas from classical Greece through the Renaissance, 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.
### Course Descriptions

**LIT 11B — World Literature** 3 Units
54 hours lecture
Prerequisite: ENGL 1A
An introductory survey course of European literature (17th to the 20th centuries) that explores the significant and representative literary works of the major authors of these periods. Emphasis is on the aesthetic, social and philosophical values and ideas that influenced these authors and the development of 20th century thought.

**LIT 14 — Introduction to Modern Poetry** 3 Units
54 hours lecture
Prerequisite: ENGL 1A
Examines the significant poetry of England and America in the 20th century, with the major emphasis on contemporary poems.

**LIT 15 — Introduction to Cinema** 3 Units
54 hours lecture
Prerequisite: ENGL 1A
Explores the broad range of human experience inherent in the study of film as art. Using a number of films drawn from various genres, examines film from historical, social, technological and aesthetic perspectives.

**LIT 19 — African American Literature** 3 Units
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 20 — African American Literature** 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ENGL 1A
Examines African American literature, drama, and film. Issues of contemporary African American literature, drama, and film. Includes discussion of the roles played by gender, religion, language, education, family, ethnic identity, and class. Also addresses application of literary tools such as symbolism, language, and theme.

**LIT 36 — Introduction to Mythology** 3 Units
54 hours lecture
Prerequisite: ENGL 1A
A survey of major myths, including creation, fertility, and hero myths. Explores theories and approaches to these archetypal stories and the ways that they reflect and shape culture. Emphasis is on classical mythology, but myths from around the world may be included.

**LIT 40 — Children's Literature** 3 Units
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: ENGL 1A
Designed to give the student a knowledge and an appreciation of children's books, both fiction and non-fiction, from around the world. Special emphasis is given to analysis and interpretation of thematic and literary elements, suitability for age group, quality of writing and illustration, award-winning books, and issues related to cultural patterns, bias and persuasiveness.

**LIT 47 — The Bible as Literature: New Testament** 3 Units
54 hours lecture
Prerequisite: ENGL 1A
Considers the Bible as a collection of literary texts and applies the principles of literary historical analysis to the Old Testament.

**LIT 48 — The Bible as Literature: Old Testament** 3 Units
54 hours lecture
Prerequisite: ENGL 1A
Considers the Bible as a collection of literary texts and applies the principles of literary historical analysis to the Old Testament.

**FCS 41 — Life Management** 3 Units
54 hours lecture
Prerequisite: ENGL 1A
Issues of contemporary Mexican-American literature, drama, and film. Includes discussion of the roles played by gender, religion, language, education, family, ethnic identity, and class. Also addresses application of literary tools such as symbolism, language, and theme.

**FCS 80 — Personal Financial Planning** 3 Units
54 hours lecture
Prerequisite: Compliance with work experience regulations as designated in the College Catalog.

**FCS 91 — Work Experience in Family and Consumer Sciences** 1 Unit
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass)
75 hours lab
Supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.

**FASH 9 — History of Costume and Fashion** 3 Units
54 hours lecture
A survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Description</th>
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</thead>
</table>
| FASH 10     | Clothing Construction I                          | 3     | 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     | 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. |
| FASH 15     | Fashion Strategies                               | 3     | Degree Applicable, CSU                 | 54 hours lecture  
An investigative overview of sociological, psychological, cultural and fashion industry influences on clothing selection. The elements and principles of design and their impact on dress will be explored. |
| FASH 17     | Textiles                                         | 3     | Degree Applicable, CSU, UC             | 54 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     | Degree Applicable, CSU                 | 36 hours lecture  
54 hours lab  
Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture fabric, and design detail. Students will explore a variety of mediums. |
| FASH 21     | Patternmaking I                                  | 3     | Degree Applicable, CSU                 | 36 hours lecture  
54 hours lab  
Prerequisite: FASH 10  
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     | Degree Applicable                      | 36 hours lecture  
54 hours lab  
Prerequisite: FASH 10  
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     | Degree Applicable                      | 36 hours lecture  
54 hours lab  
Prerequisite: FASH 21  
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. |
| FASH 24     | Fashion Patternmaking by Computer                | 3     | Degree Applicable                      | 36 hours lecture  
54 hours lab  
Advisory: FASH 21  
Industrial fashion patternmaking and grading using Gerber Computer Aided Design (CAD) technology. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing and grading of patterns. |
| FASH 25     | Fashion Computer-Assisted Drawing                | 3     | Degree Applicable, CSU                 | 36 hours lecture  
54 hours lab  
Advisory: FASH 20  
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. Concentration on Adobe Illustrator and Adobe Photoshop. |
| FASH 26     | Fashion Computer Assisted Design                 | 2     | Degree Applicable                      | 18 hours lecture  
54 hours lab  
Prerequisite: FASH 10  
Use an advanced, industry-specific CAD system to produce high-level graphic presentations. Create color palettes, textiles, and surface designs; explore texture mapping and how it is used to create a natural drape on the fashion figure; and use the computer as a layout design tool for swatches and vector flat drawings. |
| FASH 30     | Fashion Design and Product Development I         | 3     | Degree Applicable                      | 54 hours lecture  
Advisory: FASH 15  
Overview of the global environment for product development for fashion. Applies the concepts and methods by which retailers create special store-branded merchandise for targeted customer segments. Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results. |
| FASH 31     | Fashion Design and Product Development II        | 3     | Degree Applicable                      | 36 hours lecture  
54 hours lab  
Prerequisite: FASH 20, FASH 21 or 22, and FASH 30  
Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children’s and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns. |
| FASH 32     | Fashion Design and Product Development III       | 3     | Degree Applicable                      | 36 hours lecture  
54 hours lab  
Prerequisite: FASH 31  
Advanced fashion design and product development emphasizing, in portfolio format, a minimum of three lines with production flats, scale patterns, pattern charts, cost sheets and sample garments. A design sketchbook will be maintained. Includes resume preparation and job search appropriate for the fashion design industry. |
| FASH 35     | Special Topics in Fashion Design                 | 2     | Degree Applicable                      | 18 hours lecture  
54 hours lab  
Prerequisite: FASH 10  
(May be taken four times for credit)  
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     | Degree Applicable                      | 54 hours lecture  
Prerequisites 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. |
### Course Descriptions

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<tr>
<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>FIRE 12 — Wildland Fire Control</td>
<td>4.5 Units</td>
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<td>Degree Applicable, CSU</td>
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79 hours lecture  
Advisory: Eligibility for ENGL 68  
Addresses wildland fire behavior, safety considerations, strategy, tactics, and operational differences within the wildland urban interface.

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<tr>
<th>FIRE 20 — Fire Instructor 1A</th>
<th>2 Units</th>
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<td>40 hours lecture</td>
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<td>Advisory: FIRE 86 or equivalent taken prior</td>
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<td>State Board of Fire Service accredited course in fire service instructional</td>
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<td>techniques, including lesson plan development, performance goals,</td>
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<td>evaluation techniques, instructor performance goals, instructor</td>
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<td>responsibilities, the learning process, instructional aids and training</td>
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<td>records. This course applies to California Fire Service Training and</td>
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<td>Education System certifications.</td>
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<tr>
<th>FIRE 21 — Fire Instructor 1B</th>
<th>2 Units</th>
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<td>40 hours lecture</td>
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<td>Advisory: FIRE 20 or equivalent taken prior</td>
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<td>State Board of Fire Service accredited course in fire service instructional</td>
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<td>Education System certifications.</td>
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<tr>
<th>FIRE 22 — Fire Instructor 2A</th>
<th>2 Units</th>
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<td>40 hours lecture</td>
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<td>Advisory: FIRE 21 or equivalent taken prior</td>
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<td>Level II preparation for fire science instructors training officers with</td>
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<td>emphasis on techniques of evaluation, test planning, constructing and</td>
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<td>using manipulative tests, test analysis, critiques, test security and</td>
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<td>records. A State Board of Fire Science accredited course.</td>
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<tr>
<th>FIRE 23 — Fire Instructor 2B</th>
<th>2 Units</th>
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<td>40 hours lecture</td>
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<td>Advisory: FIRE 21 or equivalent taken prior</td>
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<td>Organizational communication skills for training officers with emphasis</td>
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<td>on leadership, interpersonal relations, developing and conducting staff</td>
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<td>meetings, assertive and argumentative presentations and encouraging staff</td>
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<td>participation. A State Board of Fire Science accredited course.</td>
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<thead>
<tr>
<th>FIRE 24 — Fire Instructor 2C</th>
<th>2 Units</th>
<th></th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>40 hours lecture</td>
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<td></td>
<td></td>
<td></td>
<td>Advisory: FIRE 21 or equivalent taken prior</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Preparation for fire personnel instructor/ training officer. Principles of</td>
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<td></td>
<td></td>
<td></td>
<td>media use in the instruction process, selection of audio-visual and</td>
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<td></td>
<td></td>
<td></td>
<td>instructional media, employment of basic advanced forms of</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>instructional media, use of computers in the instructional process,</td>
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<td></td>
<td></td>
<td></td>
<td>individual instructional programs. A State Board of Fire Science</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>accredited course.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 30 — Fire Management 1</th>
<th>2 Units</th>
<th></th>
<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>40 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Advisory: FIRE 8 or FIRE 86 or equivalent taken prior</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>State Board of Fire Services accredited course in fire management designed</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>to develop an understanding of the changing role of the fire officer,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>building leadership skills, appraising and developing employee</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>performance and communication skills.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 31 — Fire Management 2A</th>
<th>2 Units</th>
<th></th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>40 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Advisory: FIRE 30 taken prior</td>
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<td></td>
<td></td>
<td></td>
<td>Level II California Fire Service Training and Education System chief</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>officers certified course in basic principles of organization and</td>
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<td></td>
<td></td>
<td>development of general management skills. Includes problem solving,</td>
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<td></td>
<td></td>
<td></td>
<td>cultural diversity, motivation, performance management and</td>
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<td></td>
<td></td>
<td></td>
<td>organizational politics.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 32 — Fire Management 2B</th>
<th>2 Units</th>
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<th>Degree Applicable</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>40 hours lecture</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Advisory: FIRE 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Budget preparation and financial management of personnel, stations,</td>
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<td></td>
<td></td>
<td></td>
<td>fire equipment, and other fire department resources.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 33 — Fire Management 2D — Master Planning in the Fire Service</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 hours lecture</td>
<td></td>
<td></td>
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<tr>
<td>Advisory: FIRE 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation for fire personnel responsible for master planning fire protection needs</td>
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<tr>
<td>for a city, county or state fire agency. Covers program and master planning, forecasting, systems, policy analysis and design.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 34 — Fire Management 2E — Personnel and Labor</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 hours lecture</td>
<td></td>
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<tr>
<td>Advisory: FIRE 31</td>
<td></td>
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<tr>
<td>For fire supervisors and managers responsible for supervision, implementing department policies, diversity, labor relations, human resources and legal issues.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 40 — Fire Prevention 1A</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 hours lecture</td>
<td></td>
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<tr>
<td>Advisory: FIRE 5, FIRE 86, or equivalent taken prior</td>
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</tr>
<tr>
<td>First Level I course qualifies the student as a Certified Prevention Officer through the California Fire Service Training and Education System. Includes responsibilities of fire prevention personnel, procedures for correcting hazards, origin and history of fire prevention efforts in the U.S., basic fire prevention functions, occupancy identification, building preparation, record management, exit requirements, electrical hazards, plan review and safety education.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 41 — Fire Prevention 1B</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: FIRE 40 or equivalent taken prior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Level I California Fire Service Training and Education System certified course in fire prevention. Includes relationship of life safety codes and building construction principles, exiting requirements, fire protection systems, basic electrical theory, fire drills and training, fire inspection reports, plans specifications processing, and fire prevention complaints.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 42 — Fire Prevention 1C</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: FIRE 40 and FIRE 41 or equivalent taken prior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Level I California Fire Service Training and Education System certified course in fire prevention. Includes physical properties of flammable and combustible liquids, storage practices, transportation and controlling of flammable and liquefied gases.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE 43 — Fire Prevention 2A</th>
<th>2 Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Level II California Fire Service Training and Education System certified course in fire prevention for career fire personnel. Includes standards, laws and regulations pertaining to construction requirements for buildings, sprinklers and alarm systems, installation procedures and requirements associated with fire protection systems.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### COURSE DESCRIPTIONS

**FIRE 44 — Fire Prevention 2B**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior
- Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation I course (FIRE 62). Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation I course (FIRE 62).

**FIRE 54 — Fire Command 2C - High-Rise Fire Tactics**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 50
- A system-based approach applied to high-rise fires. Includes pre-fire planning, building inventory, problem identification, ventilation methods, water supply, elevators, life safety and strategy and tactic operations.

**FIRE 55 — Fire Command 2D - Disaster Planning**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 50
- Level II California Fire Service Training and Education System certified course in fire prevention for fire personnel. Includes standards required for industrial ovens, cleaning and finishing processes, welding, refrigeration systems, medical gasses and fireworks.

**FIRE 56 — Fire Command 2E - Wildland Fire Control**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 51
- For supervisory and managerial fire service personnel responsible for management and coordination of an extended wildland fire incident.

**FIRE 60 — Fire Investigation 1A**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 10; FIRE 86, or equivalent taken prior
- Level I California Fire Service Training and Education System certified course designed for first-in incident commander and company officers. Provides incident management information on tactics, strategies, and scene management for multi-casualty incidents, hazardous material incidents, and wildland fires.

**FIRE 61 — Fire Investigation 1B**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 60 or equivalent taken prior
- Level I California Fire Service Training and Education System certified course designed for firefighters, fire investigators and law enforcement officers assigned to fire investigation. Includes a basic overview of fire scene investigation with the focus on fire scene indicators and determine the fire’s cause and origin.

**FIRE 62 — Fire Investigation 2A - Fire Cause Determination 1**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 60, FIRE 61
- Designed for in-service fire personnel completing their Fire Investigation II Certification and provides the information to successfully investigate, apprehend, and convict arsonists.

**FIRE 63 — Fire Investigation 2B - Fire Cause Determination 2**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 61 and FIRE 62
- Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation 1 course (FIRE 62).

**FIRE 64 — Fire Investigation 2C - Fire Cause Determination 3**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 61 and FIRE 62
- Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation 1 course (FIRE 62).

**FIRE 65 — Fire Investigation 2D - Fire Cause Determination 4**
- **2 Units**
- Degree Applicable
- 40 hours lecture
- Advisory: FIRE 61 and FIRE 62
- Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation 1 course (FIRE 62).

**FIRE 68 — Basic Fire Academy**
- **14.5 Units**
- Degree Applicable
- 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)
- 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 88 — Explorer Fire Academy**
- **2 Units**
- Degree Applicable
- 22 hours lecture
- 48 hours lab
- Specialized Fire Academy designed for fire explorers. Instruction in the proper use of fire and rescue apparatus and equipment and fire extinguishing techniques in accordance with the State of California Fire Marshall’s Office.
### FRENCH

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Credit Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRCH 1</td>
<td>Elementary French</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>FRCH 2</td>
<td>Continuing Elementary French</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>72 hours lecture</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td>FRCH 3</td>
<td>Intermediate French</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>FRCH 4</td>
<td>Continuing Intermediate French</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: FRCH 3 or equivalent. Continued development of competencies with the goal of attaining intermediate-high 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.</td>
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</tr>
<tr>
<td>FRCH 5</td>
<td>Advanced French</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>FRCH 6</td>
<td>Continuing Advanced French</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>72 hours lecture</td>
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<td></td>
<td>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.</td>
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<tr>
<td>FRCH 53</td>
<td>Intermediate Conversational French</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: FRCH 2 or FRCH 52 or equivalent. Develops intermediate level fluency through expansion of vocabulary and practical use of language.</td>
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<tr>
<td>FRCH 54</td>
<td>Continuing Intermediate Conversational French</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: FRCH 3 or FRCH 53 or equivalent. Develops intermediate-high fluency through further expansion of vocabulary and practical use of language.</td>
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### GEOGRAPHY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Credit Applicability</th>
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<tbody>
<tr>
<td>GEOG 1</td>
<td>Elements of Physical Geography</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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<tr>
<td>GEOG 1H</td>
<td>Elements of Physical Geography - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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<tr>
<td>GEOG 1L</td>
<td>Physical Geography Laboratory</td>
<td>1</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Corequisite: GEOG 1 or GEOG 1H (may have been taken previously). Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems.</td>
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</tbody>
</table>
Course Descriptions

GEOG 1LH — Physical Geography Laboratory - Honors  
1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Prerequisite: Acceptance into the Honors Program  
Course Description: GEOG 1LH (may have been taken previously)  
Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1L and GEOG 1LH.

GEOG 2 — Human Geography  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Eligibility for ENGL 68  
Introduction to human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and basic literacy in the geography of place names and in world regional understanding.

GEOG 2H — Human Geography - Honors  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
Introduction to human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and basic literacy in the geography of place names and in world regional understanding. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 2 and GEOG 2H.

GEOG 3 — Map Reading and Interpretation  
3 Units  
Degree Applicable, CSU  
54 hours lecture  
Provides basic map reading skills with an emphasis on map projections, earth grid systems, principles of map reading, interpretation and use of an atlas. Introduction to skills needed to use and appreciate maps as a form of communication and as a research tool.

GEOG 5 — World Regional Geography  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Developmental study of the world’s regions, addressing the major countries in terms of population, resources, economic development, physical environment, and geographic problems.

GEOG 8 — The Urban World  
3 Units  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
The geographical analysis of past and current patterns of world urbanization. Emphasis will be placed on city origins, growth, development, and current problems.

GEOG 10 — Introduction to Geographic Information Systems  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Hands-on training in the principles, theory and operations of geographic information systems (GIS), including geospatial data models, analytical functions, data quality, map design and visual communication, and social and environmental applications of GIS.

GEOG 11 — Intermediate GIS  
3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: GEOG 10  
Surveys GIS fundamentals including hands on experience using hardware/software. Emphasizes vector-based data using ArcGIS and raster-based data using the software extensions.

GEOG 30 — Geography of California  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
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 atmospheric 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.

GEOG 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 (GEOG BL) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are 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 atmospheric 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 4 — Oceanography  
4 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
48 hours lab  
Prerequisite: Eligibility for MATH 51  
An introduction to the physical processes of the oceans including the study of waves, tides, currents, seafloor features, and the environment. The major marine groups of organisms are also introduced. Required field trips may involve overnight camping.

GEOL 7 — Geology of California  
3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
An 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 tectonics 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 (GEOG BL) is recommended for students needing a lab to transfer to a 4-year college/university. Field trips are required.

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 (GEOG BL) 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 GEOG 8 and GEOG 8H.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisite/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 9 — Environmental Geology</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
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</tr>
<tr>
<td>GEOL 10 — Natural Disasters</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td></td>
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<tr>
<td>GEOL 13 — Evolution of the Earth</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>GEOL 24 — Geologic Field Studies: Central California</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td></td>
</tr>
<tr>
<td>GEOL 99 — Special Projects in Geology</td>
<td>2 Units</td>
<td>Degree Applicable, CSU</td>
<td>36 hours lecture</td>
<td>In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor’s authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.</td>
</tr>
<tr>
<td>GERM 1 — Elementary German</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>72 hours lecture</td>
<td>Prerequisite: Eligibility for ENGL 68 For students with no previous German. Develops the ability to converse, read, and write in German. Emphasis on oral proficiency. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Germanic culture.</td>
</tr>
<tr>
<td>GERM 2 — Continuing Elementary German</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>72 hours lecture</td>
<td>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.</td>
</tr>
<tr>
<td>GERM 3 — Intermediate German</td>
<td>4 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>Prerequisite/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1 — History of the United States</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
<td>Prerequisite: Eligibility for ENGL 68 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>
</tr>
<tr>
<td>HIST 3 — History of World Civilization - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
<td>Prerequisite: Acceptance into the Honors Program The rise and development of civilization from the Stone Age to 1500.</td>
</tr>
<tr>
<td>HIST 4 — History of World Civilization</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
<td>Prerequisite: Eligibility for ENGL 1A The rise and development of civilization from 1500 to the present.</td>
</tr>
<tr>
<td>HIST 4H — History of World Civilization - Honors</td>
<td>3 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>54 hours lecture</td>
<td>Prerequisite: Acceptance into the Honors Program The rise and development of civilization from 1500 to the present. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 4 and HIST 4H.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td>HIST 7</td>
<td>History of the United States</td>
<td>3</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>HIST 7H</td>
<td>History of the United States - 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>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td></td>
<td>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.</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</td>
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<td></td>
<td>54 hours lecture</td>
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<td></td>
<td>Prerequisite: Eligibility for ENGL 1A</td>
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<tr>
<td></td>
<td>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 8H</td>
<td>History of the United States - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td></td>
<td>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. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 8 and HIST 8H.</td>
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<tr>
<td>HIST 10</td>
<td>History of Asia</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td>HIST 11</td>
<td>History of Asia</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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<tr>
<td>HIST 16</td>
<td>The Wild West - A History, 1800-1890</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td>HIST 19</td>
<td>History of Mexico</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td>HIST 30</td>
<td>History of the African American</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td>HIST 31</td>
<td>History of the African American</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<tr>
<td>HIST 35</td>
<td>History of Africa</td>
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<td></td>
<td>54 hours lecture</td>
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<tr>
<td>HIST 36</td>
<td>Women in American History - Beyond the Stereotypes</td>
<td>3</td>
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<td></td>
<td>54 hours lecture</td>
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### Course Descriptions

#### 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 American
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
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 mutual relationships generated through these factors. Critically analyzes how the Native American narrative is woven into the fabric of U.S. history and is an essential component of the complete American story.

#### HIST 99 — Special Projects in History
2 Units
Degree Applicable, CSU
36 hours lecture
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 improve skills through supervised work 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.

#### HISTOTECHNOLOGY

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<th>HT</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tr>
<td>HT</td>
<td>Introduction to Histotechnology</td>
<td>1</td>
<td>Degree Applicable</td>
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<td>HT</td>
<td>Scientific Basics for Histologic</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>Technicians</td>
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<td>HT</td>
<td>History</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>HT</td>
<td>Histology</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>HT</td>
<td>Special Projects in History</td>
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<td>Degree Applicable</td>
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<tr>
<td>HT</td>
<td>Beginning Histotechniques</td>
<td>5</td>
<td>Degree Applicable</td>
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<tr>
<td>HT</td>
<td>Advanced Histotechniques</td>
<td>4</td>
<td>Degree Applicable</td>
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<tr>
<td>HT</td>
<td>Histochemistry/Immunohistochemistry</td>
<td>4</td>
<td>Degree Applicable</td>
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<tr>
<td>HT</td>
<td>Work Experience in Histotechnology</td>
<td>1-4</td>
<td>Degree Applicable</td>
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#### HOSPITALITY AND RESTAURANT MANAGEMENT

<table>
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<tr>
<th>HRM</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>HRM</td>
<td>Introduction to Hospitality</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>HRM</td>
<td>Dining Room Service Management</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td>HRM</td>
<td>Food Safety and Sanitation</td>
<td>1.5</td>
<td>Degree Applicable</td>
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<tr>
<td>HRM</td>
<td>Work Experience in Histotechnology</td>
<td>1-4</td>
<td>Degree Applicable</td>
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</table>

#### Program Prerequisites
- Eligibility for ENGL 68
- Advisory: ANAT 35
- Advisory: MICR 22
- Advisory: ANAT 35
- Advisory: ENGL 68
- Advisory: ENGL 68
Course Descriptions

<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>HRM 54</td>
<td>Basic Cooking Techniques</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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<tr>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Advisory: HRM 52</td>
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<td></td>
<td>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.</td>
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<tr>
<td>HRM 56</td>
<td>Management of Hospitality Operations</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>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.</td>
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<tr>
<td>HRM 57</td>
<td>Restaurant Cost Control</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>Carequisite: HRM 51 (May have been taken previously)</td>
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<td></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>
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<tr>
<td>HRM 60</td>
<td>Hospitality Purchasing</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>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.</td>
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</tr>
<tr>
<td>HRM 61</td>
<td>Menu Planning</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Advisory: HRM 51</td>
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<td>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.</td>
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<tr>
<td>HRM 62</td>
<td>Catering</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>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.</td>
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<tr>
<td>HRM 64</td>
<td>Hospitality Financial Accounting I</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: BUSA 11 or MATH 51</td>
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<td></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>
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<tr>
<td>HRM 66</td>
<td>Hospitality Law</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<td>Advisory: HRM 51</td>
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<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>
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<tr>
<td>HRM 70</td>
<td>Introduction to Lodging</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: HRM 91</td>
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<td>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.</td>
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<tr>
<td>HRM 91</td>
<td>Hospitality Work Experience</td>
<td>1-4</td>
<td>Degree Applicable, CSU</td>
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<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>75 to 300 hours lab</td>
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<td>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</td>
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<td>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.</td>
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HUMANITIES

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<tr>
<td>HUMA 1</td>
<td>The Humanities</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<td>54 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>An interdisciplinary study of the artistic, musical, literary and philosophical accomplishments and achievements of women and men in western society from the ancient Middle East to the present. Emphasizes creating an awareness of human expression as it occurs in a historical and philosophical context.</td>
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INSPECTION AND ESTIMATING, BUILDING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>INS 71</td>
<td>Legal Aspects of Construction</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</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>INS 67</td>
<td>Reading Construction Drawings</td>
<td>3</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>INS 70</td>
<td>Elements of Construction</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>INS 71</td>
<td>Construction Estimating</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
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<tr>
<td>INS 77</td>
<td>Fundamentals of Construction</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
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<tr>
<td></td>
<td>54 hours lecture</td>
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<tr>
<td>INS 78</td>
<td>Fundamentals of Construction Inspection</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>Basics of bidding procedures and interrelationship of documents and estimating. Detailed calculation of cost based on the amount of required building materials using actual working drawings, estimating forms, and cost data courses.</td>
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</table>

Degree Applicable, CSU, UC
### Interior Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
</table>
| ID 10       | Introduction to Interior Design        | 3     | 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   | 36 hours lecture  
54 hours lab  
Advisory: ID 10  
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   | 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. |
| ID 20       | Color and Design Theory I              | 3     | 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     | 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     | 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 | 3   | 36 hours lecture  
54 hours lab  
Corequisite: ID 22 (May have been taken previously)  
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. |
| ID 25       | Codes and Specifications for Interior Design | 3   | 36 hours lecture  
54 hours lab  
Prerequisite: ID 22  
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     | 36 hours lecture  
54 hours lab  
Corequisite: ID 25 (May have been taken previously)  
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     | 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, evaluating 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 29       | Interior Design Studio I               | 3     | 36 hours lecture  
54 hours lab  
Prerequisite: ID 26  
Formerly ID 105.  
Residential and commercial construction systems and materials. Includes typical building systems used in construction that affect interior design and elements that make up the foundation, floors, walls, and roof. Field trips may be required. |
| ID 31       | Building Systems for Interior Design   | 3     | 36 hours lecture  
54 hours lab  
Prerequisite: ID 22  
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. |
**Course Descriptions**

<table>
<thead>
<tr>
<th>ID</th>
<th>Course Title</th>
<th>Units</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ID 34</td>
<td>Computer Aided Drawing for Interior Design II</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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<tr>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: ID 23</td>
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<td></td>
<td>Three-dimensional computer modeling, rendering, lighting, and fly-throughs as used in interior design. Portfolio pieces will be produced. Field trips may be required.</td>
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<tr>
<td>ID 36</td>
<td>Professional Practices for Interior Design</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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<tr>
<td></td>
<td>54 hours lab</td>
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<tr>
<td></td>
<td>Prerequisite: ID 29</td>
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<td>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.</td>
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<tr>
<td>ID 37</td>
<td>Business Practices for Interior Design</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Formerly ID 230.</td>
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<td>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.</td>
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<tr>
<td>ID 38</td>
<td>Internship in Interior Design</td>
<td>1 to 3</td>
<td>Degree Applicable</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td>75 to 225 hours lab</td>
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<td></td>
<td>Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog. Formerly ID 240A and 240B</td>
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<td>Designed to provide the student with actual on-the-job experience in the interior design profession, which relates to student's 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.</td>
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<tr>
<td>ID 39</td>
<td>Interior Design Studio II</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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<tr>
<td></td>
<td>54 hours lab</td>
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<td>Prerequisite: ID 29</td>
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<td>Formerly ID 215.</td>
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<td>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.</td>
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<tr>
<td>ID 40</td>
<td>Kitchen and Bath Studio I</td>
<td>3</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>54 hours lab</td>
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<td>Prerequisite: ID 29</td>
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<tr>
<td></td>
<td>Formerly ID 31.</td>
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<td></td>
<td>Corequisite: ID 31 (May have been taken previously.)</td>
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<td></td>
<td>Advisory: ID 32.</td>
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<td></td>
<td>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. Field trips may be required.</td>
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<tr>
<td>ID 41</td>
<td>Kitchen and Bath Studio II</td>
<td>3</td>
<td>Degree Applicable</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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<td>Prerequisite: ID 40</td>
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<td></td>
<td>Formerly ID 40C.</td>
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<td></td>
<td>Corequisite: ITAL 1 or equivalent</td>
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<td></td>
<td>Advisory: ID 32.</td>
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<td>Kitchen and bath design that focuses on universal design, design concepts, and historical design for kitchen and bath projects. Emphasis is placed on ergonomics and American Disability Act (ADA) considerations. Projects will utilize graphic standards as recommended by NKBA. Field trips may be required.</td>
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<tr>
<td>ID 48</td>
<td>Internship in Kitchen and Bath</td>
<td>1 to 3</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td>75 to 225 hours lab</td>
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<td></td>
<td>Prerequisite: Compliance with Work Experience/Internship regulations as designated in the College Catalog. Formerly ID 240C. Designed to provide the student with actual on-the-job experience in the interior design profession at a National Kitchen and Bath (NKBA) member work site, which relates to student's 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.</td>
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<tr>
<td>ID 52</td>
<td>Independent Studies in Interior Design</td>
<td>1 to 3</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>54 to 162 hours lab</td>
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<td>Extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Interior Design. Portfolio pieces will be produced.</td>
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**ITALIAN**

<table>
<thead>
<tr>
<th>ITAL 1</th>
<th>Elementary Italian</th>
<th>4</th>
<th>Degree Applicable, CSU, UC</th>
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<tbody>
<tr>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>ITAL 2</td>
<td>Continuing Elementary Italian</td>
<td>4</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>72 hours lecture</td>
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<tr>
<td></td>
<td>Prerequisite: ITAL 1 or equivalent</td>
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<tr>
<td></td>
<td>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.</td>
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<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Degree Applicability</td>
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</table>
| ITAL 1 — Intermediate Italian                    | 4 Units | Degree Applicable, CSU, UC | 72 hours lecture  
Prerequisite: ITAL 2 or equivalent  
Development of intermediate Italian language skills and their use as tools in exploring Italian civilization. Further study and review of grammar, exercises in word building, derivation and the extension of the active and recognition vocabularies. Extensive exposure to Italian culture, such as film, music and history. |
| ITAL 4 — Continuing Intermediate Italian          | 4 Units | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass)  
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                         | 4 Units | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass)  
72 hours lecture  
Prerequisite: ITAL 4 or equivalent  
Emphasis is placed on increased facility to read and write advanced Italian. Cultural insights are developed through the study of various Italian literary types. |
| ITAL 6 — Continuing Advanced Italian              | 4 Units | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass)  
72 hours lecture  
Prerequisite: ITAL 5 or equivalent  
Extensive advanced reading, writing, and speaking in Italian that further develop cultural insight through the study of various Italian literary types. |
| ITAL 53 — Continuing Conversational Italian       | 3 Units | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ITAL 2 or ITAL 52 or equivalent  
Development of intermediate Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context. |
| ITAL 54 — Advanced Conversational Italian         | 3 Units | Degree Applicable, CSU, UC | (May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: ITAL 2 or ITAL 53 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. |
| JAPN 1 — Elementary Japanese                      | 4 Units | Degree Applicable, CSU, UC | 72 hours lecture  
Prerequisite: JAPN 2 or equivalent  
| JAPN 2 — Continuing Elementary Japanese           | 4 Units | Degree Applicable, CSU, UC | 72 hours lecture  
Prerequisite: JAPN 1 or equivalent  
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)  
72 hours lecture  
Prerequisite: JAPN 2 or equivalent  
| JOUR 101 — 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. |
### Course Descriptions

**JOUR 101 — Beginning News Writing** 3 Units  
Degree Applicable, CSU, UC  
(May be taken four times for credit)  
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 Newswriting** 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 — Newswriting Lab** 2 Units  
Degree Applicable  
(May be taken four times for credit)  
(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, copyediting. 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 four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
108 hours lab  
Prerequisite: JOUR 101  
Provides experience in the production of a college newspaper and magazine. Provides learning through electronic assembly of the newspaper and magazine using desktop publishing 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 four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lab  
Advisory: 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 four times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
108 hours lab  
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  
Advisory: ENGL 1A  
Studies the role mass media plays in the social, political, and economic integration of minorities, cultures, women, and gays and lesbians into American society. Examines ways that mass media impacts public attitudes and behaviors.

**JOUR 108 — Writing for Public Relations** 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: JOUR 101 or JOUR 1A  
An introduction to public relations writing including news releases, fact sheets, feature stories, institutional publications, and newsletters. The relationships between public relations, the mass media, and society will be explored.

**JOUR 109 — Public Relations Internship** 3 Units  
Degree Applicable  
(May be taken two times for credit)  
(May be taken for option of letter grade or Pass/No Pass)  
225 hours lab  
Advisory: JOUR 108 or JOUR 8  
Field work in public relations. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

**JOUR 110 — Magazine Writing and Production** 3 Units  
Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: JOUR 101 or JOUR 1A  
Provides experience in the production of a college newspaper and magazine. 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 111 — Broadcast News Writing** 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
Prerequisite: JOUR 1A or JOUR 101  
Intensive news gathering and writing for radio and television. Newscast planning, story organization, and functions of a broadcast newsroom are explored. Emphasis is placed on writing for both visual and audio delivery. Students who repeat this course will improve skills through further instruction and practice.

**JOUR 112 — Work Experience in Journalism** 3 to 4 Units  
Not Degree Applicable  
(May be taken for option of letter grade or Pass/No Pass)  
225 to 300 hours lab  
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. JOUR 101 or JOUR 1A and ENGL 1A  
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.
### LATIN

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LATN 1</td>
<td>Elementary Latin</td>
<td>4</td>
<td>CU, UC</td>
</tr>
<tr>
<td>LATN 2</td>
<td>Continuing Elementary Latin</td>
<td>4</td>
<td>UC</td>
</tr>
</tbody>
</table>

### LEADERSHIP

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD 55</td>
<td>Exploring Leadership</td>
<td>3</td>
<td>UC</td>
</tr>
</tbody>
</table>

### LEARNING ASSISTANCE SERVICES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LERN 48</td>
<td>Basic Math Skills Review</td>
<td>3</td>
<td>UC</td>
</tr>
<tr>
<td>LERN 49</td>
<td>Math Skills Review</td>
<td>3</td>
<td>UC</td>
</tr>
</tbody>
</table>

### MANUFACTURING TECHNOLOGY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 10</td>
<td>Mathematics and Blueprint Reading</td>
<td>3</td>
<td>CSU, UC</td>
</tr>
<tr>
<td>MFG 11</td>
<td>Manufacturing Processes I</td>
<td>2</td>
<td>CSU</td>
</tr>
</tbody>
</table>

### LIBRARY AND INSTRUCTIONAL MEDIA

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBR 1</td>
<td>Information Resources and Research Methods</td>
<td>3</td>
<td>UC</td>
</tr>
<tr>
<td>LIBR 1A</td>
<td>Introduction to Library Research</td>
<td>1</td>
<td>UC</td>
</tr>
</tbody>
</table>

### LEARNING COMMUNITIES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCOM 80</td>
<td>Learning Communities: Individual Connections</td>
<td>1</td>
<td>UC</td>
</tr>
<tr>
<td>LCOM 90</td>
<td>Learning Communities: Campus Connections</td>
<td>1</td>
<td>UC</td>
</tr>
</tbody>
</table>
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Instructor Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFG 12</td>
<td>Manufacturing Processes II</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 11</td>
</tr>
<tr>
<td></td>
<td>Machine tool manufacturing process theory and practice in milling operations, tooling set up, indexing, metallurgy, heat treatment, precision grinding, and basic tool design with study and application of manufacturing process to computerized equipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 15</td>
<td>AutoCAD 2D</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 15</td>
</tr>
<tr>
<td></td>
<td>Creation of two-dimensional mechanical drawings and part geometry that can be transferred to various computer-aided manufacturing systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 17</td>
<td>3-D CAD Mechanical Modeling</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 15</td>
</tr>
<tr>
<td></td>
<td>Development of three-dimensional mechanical models using AutoCAD and analysis and manipulation of mechanical solid models and industrial primitives as related to their interaction with computer-aided manufacturing (CAM) systems. Creation of three-dimensional part geometry, surfaces, and solids. File transfer to various CAM systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 19</td>
<td>Parametric Solid Modeling for Manufacturing</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 15</td>
</tr>
<tr>
<td></td>
<td>Development of feature-based solid models on a computer using current industry software; creation of simple assemblies and two-dimensional drawings of modeled part and assemblies. Transfer of three-dimensional solid model to a computer-assisted manufacturing (CAM) system to create computer numeric control (CNC) machined part.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 22</td>
<td>Advanced Parametric Solid Modeling for Manufacturing</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 19 or MFG 27 taken previously</td>
</tr>
<tr>
<td></td>
<td>Advanced instruction in concepts, practice, and development of feature-based solid modeling using software currently used in the manufacturing industry. Advanced features of solid modeling global variables, 3-D helical paths generation, surface cut, table-driven parts, and advanced sheet metal, and animation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 27</td>
<td>Autodesk Inventor</td>
<td>2</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 19</td>
</tr>
<tr>
<td></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>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 38</td>
<td>MasterCAM I</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 17</td>
</tr>
<tr>
<td></td>
<td>Use MasterCAM software to create wire-frame part geometry, add tool paths and create CNC code for CNC mills and CNC lathes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 38B</td>
<td>MasterCAM II</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 17</td>
</tr>
<tr>
<td></td>
<td>Use MasterCAM software to create three-dimensional wire-frame and solid part geometry.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 39</td>
<td>SurfCAM I</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 11, MFG 85</td>
</tr>
<tr>
<td></td>
<td>SurfCAM software used to create part geometry from project drawings for two-axis milling and turning parts. Tool paths will be added and files completed and post-processed. Files will be downloadable to CNC machines. Students will be required to set up all cutting tools and machine the part.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 39B</td>
<td>SurfCAM II</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td>Advisory: MFG 19</td>
</tr>
<tr>
<td></td>
<td>Use SurfCAM software to create part geometry for three-axis milling and lathe parts from project drawings and CAD files. Tool paths will be added and the completed file will be post-processed and downloaded to CNC machine. Students will set up the required cutting tools and machine the part.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 74</td>
<td>Manufacturing Technology Work Experience</td>
<td>1</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>75 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: Compliance with work experience regulations as designated in the College catalog. Completion of MFG 11, 12, 58, 70 and 85.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provides actual on-the-job experience in manufacturing at an approved work site, which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 85</td>
<td>Manual Computerized Numerical Control (CNC) Programming</td>
<td>2</td>
<td>Degree Applicable, CSU</td>
</tr>
<tr>
<td></td>
<td>18 hours lecture</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theory and practice in manually developing CNC programs. Methods of transmitting data to CNC machines and physical set-up and operation of CNC equipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFG 99</td>
<td>Special Projects in Machining</td>
<td>.5 to 2</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>(May be taken four times for credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.5 to 18 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 to 48 hours lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisites: Students with the opportunity to develop skills in specific machining areas. Content of each course and the methods of study will depend on the specific machining skills selected.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MATHEMATICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Instructor Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 50</td>
<td>Pre-Algebra</td>
<td>3</td>
<td>Not Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>54 hours lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite: Credit in LERN 49 or qualifying score on current department placement test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Units</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MATH 51</td>
<td>Elementary Algebra</td>
<td>4</td>
<td>Includes operations with signed numbers and algebraic expressions, linear equations and inequalities, polynomial operations and factoring.</td>
</tr>
<tr>
<td>MATH 51A</td>
<td>Elementary Algebra - First Half</td>
<td>3</td>
<td>Contains the first half of elementary algebra. Operations with signed numbers and algebraic expressions.</td>
</tr>
<tr>
<td>MATH 51B</td>
<td>Elementary Algebra - Second Half</td>
<td>3</td>
<td>Contains the second half of elementary algebra.</td>
</tr>
<tr>
<td>MATH 61</td>
<td>Plane Geometry</td>
<td>3</td>
<td>Points, lines, polygons and circles; their relationships to each other on plane surfaces; congruence, similarity and area.</td>
</tr>
<tr>
<td>MATH 70</td>
<td>Intermediate Algebra</td>
<td>5</td>
<td>Includes solving second degree equations using methods of completing the square and the quadratic formula.</td>
</tr>
<tr>
<td>MATH 71A</td>
<td>Intermediate Algebra - First Half</td>
<td>3</td>
<td>Contains the first half of intermediate algebra.</td>
</tr>
<tr>
<td>MATH 71B</td>
<td>Intermediate Algebra - Second Half</td>
<td>3</td>
<td>Contains the second half of intermediate algebra.</td>
</tr>
<tr>
<td>MATH 71X</td>
<td>Practical Intermediate Algebra</td>
<td>5</td>
<td>Provides additional content to prepare students for a variety of subsequent Math courses.</td>
</tr>
<tr>
<td>MATH 71</td>
<td>Survey of College Mathematics</td>
<td>3</td>
<td>Emphasis is placed on the understanding of statistical methods.</td>
</tr>
<tr>
<td>MATH 100</td>
<td>Survey of College Mathematics</td>
<td>3</td>
<td>Covers topics in mathematical methods and reasoning.</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Elementary Statistics</td>
<td>3</td>
<td>Emphasizes the understanding of statistical methods.</td>
</tr>
<tr>
<td>MATH 96</td>
<td>Strategies for Math Success</td>
<td>1</td>
<td>Learning tools, plans and proper perspectives for math learning and improvement.</td>
</tr>
<tr>
<td>MATH 99</td>
<td>Special Projects in Mathematics</td>
<td>2</td>
<td>Offered to selected students recognition for their academic interests and ability and the opportunity to explore their disciplines greater depth.</td>
</tr>
<tr>
<td>MATH 101</td>
<td>Survey of College Mathematics</td>
<td>3</td>
<td>Emphasizes the understanding of statistical methods.</td>
</tr>
</tbody>
</table>

Prerequisites:
- MATH 50 or qualifying score on current department placement test
- MATH 51 or MATH 51B or qualifying score on current department placement test
- MATH 51 or MATH 51B or qualifying score on current department placement test
- MATH 51 or MATH 51B or qualifying score on current department placement test
### MATH 110H — Elementary Statistics - Honors 3 Units

Degree Applicable, CSU, UC

54 hours lecture

**Prerequisite:** MATH 71 or MATH 71X or MATH 71B or qualifying passing score on current department placement test and acceptance into the Honors Program

Emphasis is placed on understanding statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance. An honors course designed to provide an enriched experience. Students may not receive credit for both MATH 110 and MATH 110H.

### MATH 120 — Finite Mathematics 3 Units

Degree Applicable, CSU, UC

54 hours lecture

**Prerequisite:** MATH 71 or MATH 71X or MATH 71B or qualifying score on current department placement test

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.

### MATH 130 — College Algebra 4 Units

Degree Applicable, CSU, UC

72 hours lecture

**Prerequisite:** MATH 71 or MATH 71B or qualifying score on current department placement test

A college-level course in algebra. A study of real numbers and sets, algebraic functions and relations, radicals and exponents, linear and quadratic equations and inequalities, exponential and logarithmic functions, systems of linear and quadratic equations, complex numbers, series, theory of equations, mathematical induction and binomial formula.

### MATH 140 — Calculus for Business 4 Units

Degree Applicable, CSU, UC

72 hours lecture

**Prerequisite:** MATH 130 or MATH 160 or qualifying score on current department placement test

Calculus for business, social science, and non-science majors. Algebraic, logarithmic, and exponential functions; limits; differentiation with applications; various techniques of integration with applications; differential equations; multi variable calculus. Credit not given to persons with credit in MATH 180 or equivalent.

### MATH 150 — Trigonometry 3 Units

Degree Applicable, CSU, UC

54 hours lecture

**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

Trigonometry functions and inverse trigonometric functions and the graphical representations of these functions; solutions to right and oblique triangles with laws of sines and cosines; vectors; solutions to trigonometric equations; identities; polar coordinates; complex numbers and DeMoivre’s Theorem.

### MATH 160 — Precalculus Mathematics 4 Units

Degree Applicable, CSU, UC

72 hours lecture

**Prerequisite:** MATH 150, or qualifying score on current department placement test

Prepares students for the calculus sequence. Real-valued functions, including algebraic, trigonometric, exponential, and logarithmic functions. Also includes proofs, inequalities, introductory analytical geometry, series, sequences, and vectors.

### MATH 161 — Precalculus Mathematics 4 Units

Degree Applicable, CSU, UC

72 hours lecture

**Prerequisite:** MATH 150 or qualifying score on current department placement test

Prepares students for the calculus sequence. Real valued functions, including algebraic, trigonometric, exponential, and logarithmic functions. Also includes proofs, inequalities, introductory analytical geometry, series, sequences, and vectors.

### MATH 170 — Calculus with Analytic Geometry 4 Units

Degree Applicable, CSU, UC

90 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 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 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

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 220 — Calculus and Analytic Geometry 4 Units

Degree Applicable, CSU, UC

72 hours lecture

**Prerequisite:** MATH 180

Applications of integration, techniques of integration; indeterminate integrals; infinite series; plane curves and parametric equations; vectors in two and three space and their applications.

### MATH 245 — A Transition to Advanced Mathematics 3 Units

Degree Applicable, CSU

54 hours lecture

**Prerequisite:** MATH 181

A transition to the rigors of upper-division mathematics courses. Basic set theory and logic, relations, functions, mathematical induction, the well-ordering principle, countable and uncountable sets, the Schroder-Bernstein Theorem, the axiom of choice, Zorn’s Lemma, the Heine-Borel Theorem, the Bolzano-Weierstrass Theorem. Special emphasis on how to present and understand mathematical proofs.

### MATH 250 — Calculus and Analytic Geometry 5 Units

Degree Applicable, CSU, UC

90 hours lecture

**Prerequisite:** MATH 245

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.

### MEDICAL TERMINOLOGY

### MATH 280 — 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.
### MENT 40 — Introduction to Interviewing and Counseling  
#### 3 Units  
Degree Applicable  
54 hours lecture  
Provides a basic overview of the helping processes. Stresses application of counseling theories, helping skills, and consultation theories to allow exploration of self as a helper and learn facilitating skills to bring about change. Emphasis on establishing rapport, obtaining information and developing a supportive relationship in a variety of mental health settings. Students may not receive credit for both 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 56L  
Holistic approach to assessment and intervention in the care of the medical-surgical patient. Examines physiological modes of rest and exercise, regulation, circulation, ventilation and the sensory system; medical-surgical nursing; care of the dying patient, cardiovascular problems; calculations of drug dosage and administration of oral and topical medications; study of anatomy and physiology of the human body.  

### MENT 56L — Clinical Experience  
#### 4 Units  
Degree Applicable  
(May be taken for Pass/No Pass only)  
216 hours lab  
Development of medical-surgical nursing skills. Application and assessment, intervention, evaluation of nursing treatment in the physiological modes of rest and exercise, regulation, nutrition, elimination, application of emergency procedures, circulation, ventilation, fluids, and electrolytes. Psychosocial aspects of care including interdependence, role function, self concept, care of aged, and cultural aspects. Application of nursing skills for those with medical-surgical problems and special needs. Calculation and administration of medications. Roy’s Adaptation Model serves as the conceptual framework.  

### MENT 58L — Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical  
#### 1.5 Units  
Degree Applicable  
(May be taken for Pass/No Pass only)  
90 hours lab  
Application of nursing skills to patients with medical/surgical disorders. Administration of medications.  

### 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; mental health theories of personality development, self-concept, role function, and interdependence; developmental disabilities theories of sensorimotor techniques, behavior modification techniques.  

### MENT 70L — Introduction to Psychiatric Technology Clinical Technicians  
#### 2 Units  
Degree Applicable  
(May be taken for Pass/No Pass only)  
108 hours lab  
Corequisite: MENT 70  
The clinical experience introduces the student to facilities within the community which serve the mental health field including both the mentally disordered and developmentally disabled.  

### MENT 72 — Nursing Care of the Developmentally Disabled Person  
#### 7 Units  
Degree Applicable  
126 hours lecture  
Prerequisite: MENT 56, MENT 56L, MENT 70, MENT 70L  
Corequisite: MENT 72L  

### METO 3 — Weather and the Atmospheric Environment  
#### 3 Units  
Degree Applicable, CSU, UC  
54 hours lecture  
An introduction to the atmosphere. Processes that influence weather and climate: seasonality, structure of the atmosphere, atmospheric stability, severe weather (hurricanes, tornadoes, thunderstorms), climate change, and the causes and effects of air pollution. Students will use a variety of weather instruments, and the course may include either field work or field trips.  

### METO 3L — Weather and Atmospheric Environment Laboratory  
#### 1 Unit  
Degree Applicable, CSU, UC  
54 hours lab  
Corequisite: METO 3 (may have been taken previously)  
Laboratory topics paralleling the course content of METO 3.
Course Descriptions

**MICROBIOLOGY**

MIRC 1 — Principles of Microbiology 5 Units
54 hours lecture
108 hours lab
Prerequisite: CHEM 10 or CHEM 40
One year of college chemistry is recommended for all transfer majors. CHEM 50/51 sequence is preferred for biology and most pre-health professional majors.
Fundamental concepts of microbiology with emphasis on bacteria, viruses, fungi, protozoa and parasitic worms. Covers microbial classification, morphology, physiology and genetics; host-parasite interaction; control of disease-causing agents; public health microbiology; immune response and immune disorders. Important infectious diseases of humans and other animals are surveyed. Laboratory exercises include culturing, examining, and identifying microorganisms.

MIRC 2 — Microbiology 4 Units
54 hours lecture
54 hours lab
Prerequisite: CHEM 10 or CHEM 40
Fundamental concepts of microbiology: viruses, bacteria, fungi, protozoa and parasitic worms. Covers microbial classification, physiology and genetics; host-parasite interaction; control of disease-causing agents; public health microbiology; immune response and immune disorders. Important infectious diseases of humans and other animals are surveyed. Laboratory exercises include experiments and observation on the morphology, physiology, and control of microorganisms.

**MUSIC**

MUS 2 — Music Theory 3 Units
54 hours lecture
Corequisite: MUS 5A
Study of harmony and form in Western tonal music. Explores the concept of tonality, the properties of melody, basic chord grammar and the mechanisms by which music projects meaning. Includes a comprehensive review of music fundamentals, including music notation, meter, scales, intervals and chord construction. Required for music majors.

MUS 3A — Harmony 3 Units
54 hours lecture
Prerequisite: MUS 2, MUS 5A
Corequisite: MUS 5B
An examination of the harmonic style of Western tonal music from the common practice period. Topics include elementary chord syntax, the principles of voice leading, simple figured bass realization, soprano harmonization, basic non-chord tones, seventh chords, basic modulation techniques, period forms and binaries. Students will compose original music in the harmonic and melodic style of Classical models.

MUS 3B — Harmony 3 Units
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.

MUS 3C — Harmony 3 Units
54 hours lecture
Prerequisite: MUS 3B, MUS 6A
Corequisite: MUS 6B
Further examination of the harmonic style of Western tonal music from the common practice period, with emphasis on 18th and 19th century repertoire. Topics include modal mixture, chromatic harmony, extended tonization, advanced modulation techniques, lied, rondo and sonata form. Students will write analysis papers and compose original music in the harmonic and melodic style of Romantic models.

MUS 5A — Musicianship - Ear Training and Sight Singing 1.5 Units
18 hours lecture
18 hours lab
Corequisite: MUS 3B
Required for transfer music majors. Emphasizes sight singing, aural perception and dictation of rhythm, melody, intervals and simple harmonic progressions. Students will be aided by the use of a computer lab, and documented practice time outside of class will be required for successful course completion.

MUS 5B — Musicianship - Ear Training and Sight Singing 1 Unit
18 hours lecture
18 hours lab
Corequisite: MUS 3B
Provides further training in sight singing, aural perception and dictation, including soprano-bass dictation of diatonic Bach-style chorales. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

MUS 5C — Harmony 3 Units
54 hours lecture
Prerequisite: MUS 3B, MUS 6A
Corequisite: MUS 6C
Further examination of the harmonic style of Western tonal music from the common practice period, with emphasis on the contrapuntal music of the Baroque Era. Topics include secondary function chords, advanced non-chord tones, advanced figured bass realization, harmonic sequences, modified species, 18th century counterpoint and imitative contrapuntal forms. Students will write analysis papers and compose original music in the harmonic and melodic style of Baroque models.

MUS 6A — Musicianship - Advanced 2 Units
36 hours lecture
18 hours lab
Prerequisite: MUS 3B, MUS 6A
Corequisite: MUS 3C
Advanced training in sight singing, aural perception and dictation, including soprano-bass dictation of modulating Bach-style chorales and imitative counterpoint. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

MUS 6B — Musicianship - Advanced 2 Units
36 hours lecture
18 hours lab
Prerequisite: MUS 3B, MUS 6A
Corequisite: MUS 3C
Provides further training in sight singing, aural perception and dictation, including soprano-bass dictation of chromatic chord progressions and aural reduction of decorated instrumental textures. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.

MUS 7 — Fundamentals of Music 3 Units
54 hours lecture
Non-music major course dealing with basic elements of music notation, melody, rhythm, and harmony. Written exercises utilizing the techniques of melody, rhythm, and harmony will be employed. Recommended for prospective elementary school teachers.

MUS 9 — Introduction to Music Technology 3 Units
36 hours lecture
36 hours lab
Advisory: Eligibility for ENGL 68
A survey of the uses of computers and electronic devices to capture, create, modify and disseminate music. Provides an introduction to the principles of musical acoustics, sound recording, and digital audio. Computer software for MIDI sequencing, sound synthesis, digital sampling, editing, music notation and composition will be demonstrated and practiced in class. Assignments will include the creation of original music.
performers, significant compositions and recordings, and the social, cultural, and historical contexts of the music being studied. Attending at least one live concert is required.

**MUS 11B — Music Literature Survey**  
Degree Applicable, CSU, UC  
54 hours lecture  
A survey of western music from the 18th to the early 21st century, including examples from several non-western cultures that have influenced music of those style periods. Lectures are augmented by recordings and other support media pertinent to the cultures/period being studied. Attending at least one live concert is required.

**MUS 12 — History of Jazz**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
A survey of jazz as a significant American art form from its roots in African and Creole music to the present. Major styles, leading performers, significant compositions and recordings, and the social, economic, and cultural contexts of the music will be stressed.

**MUS 13 — Introduction to Music Appreciation**  
Degree Applicable, CSU, UC  
54 hours lecture  
An introductory study of music from a variety of cultures including a survey of western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.

**MUS 13H — Introduction to Music Appreciation — Honors**  
Degree Applicable, CSU, UC  
54 hours lecture  
Prerequisite: Acceptance into the Honors Program  
An introductory study of music from a variety of cultures including a survey of western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required. An honors course designed to provide an enriched experience. Students may not receive credit for both MUS 13 and MUS 13H.

**MUS 14A — World Music**  
Degree Applicable, CSU, UC  
54 hours lecture  
Advisory: Eligibility for ENGL 68  
Examines the dominant musical cultures of the world within Africa, the Americas, and Asia and compares these to Western popular music. Identifies vocal and instrumental genres within selected cultures and examines the harmonic, melodic, and rhythmic characteristics of each style. Lectures, films, recordings, and media presentations will assist the student in exploring the ways in which music is used around the world for aesthetic, social, and spiritual purposes.

**MUS 14B — American Folk Music**  
Degree Applicable, CSU, UC  
54 hours lecture  
The study of American folk music by both region and period. Instruction will include lecture, reading, and listening assignments, and various audio-visual materials. No previous musical experience required.

**MUS 15 — Rock Music History and Appreciation**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lecture  
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.

**MUS 16 — Individual Instruction**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
32 hours lab  
Prerequisite: Admission by audition  
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 skills through further instruction and practice.

**MUS 17A — Elementary Class Piano**  
Degree Applicable, CSU, UC  
(May be taken for option of letter grade or Pass/No Pass)  
54 hours lab  
Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice. No prior musical experience is required.
Course Descriptions

**MUS 23A — Elementary Class Guitar**
1.5 Units
Degree Applicable, CSU, UC
18 hours lecture
18 hours lab
Acoustic guitar playing, note reading, strumming, finger picking and improvisation. Students must furnish their own guitars.

**MUS 23B — Intermediate Class Guitar**
1.5 Units
Degree Applicable, CSU, UC
18 hours lecture
18 hours lab
Advisory: MUS 23A
Techniques for reading and playing music arranged for the solo guitar. Students must furnish their own acoustic guitar.

**MUS 24 — Advanced Class Guitar**
1.5 Units
Degree Applicable, CSU, UC
18 hours lecture
18 hours lab
Advisory: MUS 23B
The style, technique, and interpretation of guitar music of the 18th and 19th centuries will be studied and performed. Sight reading and ensemble playing will be emphasized. Students must furnish their own acoustic guitars.

**MUS 25A — Jazz Improvisation**
1.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
18 hours lab
Advisory: MUS 2 or MUS 7 and/or audition by professor
Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class.

**MUS 25B — Jazz Improvisation**
1.5 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
18 hours lab
Advisory: MUS 2 or MUS 7 and/or audition by professor and MUS 25A or equivalent experience
Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Augments and supplements MUS 25A.

**MUS 27 — Chamber Winds**
2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
108 hours lab
Corequisite: MUS 49 and admission by audition
This select ensemble of wind instruments will study and perform small ensemble music by major composers. Includes brass and woodwind quintets and ensembles for families of instruments. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

**MUS 29 — Choral Workshop**
1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
54 hours lab
Open to all students without an audition. Choral music of all genres with an emphasis on strengthening choral skills, including sight singing, tone, blend, balance and good vocal technique. Covers choral tone of the Renaissance to correct use of the microphone when singing pop or vocal jazz. Several guest conductors from local universities will provide clinics. Students who repeat this course will improve skills through further instruction and practice.

**MUS 30 — Collegiate Chorale**
1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
54 hours lab
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.

**MUS 31 — Concert Choir**
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 the first week of class
This mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances is required. Students who repeat this course will improve skills through further instruction and practice.

**MUS 32 — Masterworks Chorale**
1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
54 hours lab
Prerequisite: Admission by audition during the first week of class
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.

**MUS 34 — Women's Vocal Ensemble**
2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
108 hours lab
Prerequisite: Admission by audition during the first week of class
This women's group will study and perform selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

**MUS 35 — Concert and Community Band**
2 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
38 hours lab
Prerequisite: Previous band experience
Study and performance of standard and new band literature. Experience will be given to capable student directors, soloists, arrangers and composers. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

**MUS 36 — Ensemble**
.5 Unit
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
(May be taken for option of letter grade or Pass/No Pass)
38 hours lab
Prerequisite: Ability to read music or admission by audition
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.
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<tr>
<th>Course Code</th>
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<th>Degree Applicable, CSU, UC</th>
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<tbody>
<tr>
<td>MUS 39</td>
<td>Laboratory Band</td>
<td>2 Units</td>
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<td>(May be taken four times for credit) Study and performance of jazz and popular music of all types. Provides the necessary training and experience for MUS 47, Jazz Band, or for the improvement of jazz skills and understanding. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 44</td>
<td>Vocal Jazz Ensemble</td>
<td>3 Units</td>
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<td>(May be taken four times for credit) A vocal ensemble appropriate for beginning and intermediate jazz singers. This group will perform vocal jazz charts accompanied by a rhythm section, as well as a cappella. Basics of singing jazz, vocal improvisation, group singing techniques, and microphone techniques. Ensemble will perform locally and/or at vocal jazz festivals. Attendance at performances and competitions is required. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 45</td>
<td>Chamber Singers</td>
<td>3 Units</td>
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<td>(May be taken four times for credit) A highly select mixed choral group, specializing in smaller ensemble repertoire. A wide variety of choral literature is performed publicly several times each semester and a performance tour occurs each Spring semester. Emphasizes advanced musical skills and vocal techniques while focusing on the importance of blend, balance, and tone. Auditions for this course are held each May. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 46</td>
<td>Mt. SAC Singers</td>
<td>1.5 Units</td>
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<td>(May be taken four times for credit) The &quot;Mt. SAC Singers&quot; is a select choral ensemble, specializing in choreographed popular and musical theater literature. Includes a variety of music performed publicly several times every semester. Emphasizes advanced musical skills, vocal technique, choreography and showmanship skills. Off-campus performances may be required. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 47</td>
<td>Jazz Band</td>
<td>3 Units</td>
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<td>(May be taken four times for credit) An instrumental ensemble dealing with all types of popular music and jazz. Preference will be given to performers playing more than one instrument. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>MUS 48</td>
<td>Men's Vocal Ensemble</td>
<td>2 Units</td>
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<td>(May be taken four times for credit) 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>(May be taken four times for credit) 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) 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.</td>
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<tr>
<td>MUS 59</td>
<td>Special Projects in Music</td>
<td>1 to 3 Units</td>
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<td>(May be taken four times for credit) Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's approval before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</td>
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**NURSING**

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<tbody>
<tr>
<td>NURS 1A</td>
<td>The Nursing Process I</td>
<td>5 Units</td>
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<td>45 hours lecture 135 hours lab Prerequisite: Admission to Nursing Program; ANAT 35 or equivalent and ANAT 36 or equivalent, or ANAT 10A or equivalent and ANAT 10B or equivalent, and MCR 22 or equivalent, or MCR 7 or equivalent, and ENGL 1A or equivalent Corequisite: NURS 2 Principles of nursing as related to a culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process; including meaning of illness, promoting health patterns, hygiene, safety, asepsis, medication administration, elimination, communication. The Betty Neuman Model serves as the conceptual framework.</td>
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<tr>
<td>NURS 1B</td>
<td>The Nursing Process II</td>
<td>5 Units</td>
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<td>45 hours lecture 135 hours lab Prerequisite: NURS 1A or Advanced Placement Corequisite: NURS 2 Principles of nursing as related to a 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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<td>36 hours lecture Prerequisite: Admission to Nursing Program and eligibility for MATH 51 Corequisite: NURS 1A The ethical and legal responsibilities in the administration of medications. Application of mathematical concepts, the Nursing Process, and drug therapy to the administration of fluids and medications.</td>
</tr>
</tbody>
</table>
Course Descriptions

**NURS 3 — Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology**
3.5 Units
30 hours lecture
108 hours lab
Prerequisite: NURS 1B and NURS 2 or Advanced Placement

Concepts of nursing assessment and intervention with application to clients with integumentary and immunologic disorders as well as dysfunctions of sensation and locomotion. An introduction to oncology nursing is included. The Betty Neuman Model serves as the conceptual framework.

**NURS 4 — Maternity Nursing**
3 Units
27 hours lecture
81 hours lab
Prerequisite: NURS 3 or Advanced Placement

Concepts of nursing assessment and intervention with application to maternity and newborn clients. The Betty Neuman Model serves as the conceptual framework.

**NURS 5 — Psychiatric Nursing**
3 Units
27 hours lecture
81 hours lab
Prerequisite: NURS 4 or Advanced Placement and PSYC 1A

Concepts of nursing assessment and intervention with application to clients with psychiatric disorders in a mental health setting. The Betty Neuman Model serves as the conceptual framework.

**NURS 6 — Pediatric Nursing**
3 Units
27 hours lecture
81 hours lab
Prerequisite: NURS 5 or Advanced Placement and CHLD 10 or PSYC 14

Concepts of nursing assessment and intervention with application to pediatric clients. The Betty Neuman Model serves as the conceptual framework.

**NURS 7 — Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis**
7.5 Units
63 hours lecture
215 hours lab
Prerequisite: NURS 6 or Advanced Placement

Concepts of nursing assessment and intervention with application to clients with problems of nutrition, elimination, and the reproductive systems. Clients in pre-, intra-, and post-operative settings are included. The Betty Neuman Model serves as the conceptual framework.

**NURS 8 — Medical-Surgical Nursing: Circulation and Oxygenation**
5.5 Units
45 hours lecture
167 hours lab
Prerequisite: NURS 7 or Advanced Placement
Corequisite: NURS 9

Concepts for nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework.

**NURS 9 — Leadership in Nursing**
1 Unit
18 hours lecture
Prerequisite: NURS 7 or Advanced Placement
Corequisite: NURS 8

Assists the second year student to develop cognitive and leadership skills for first level management positions. Includes exploration and analysis of current trends and issues in nursing.

**NURS 10 — Medical-Surgical Nursing: Integration/Regulation**
4 Units
45 hours lecture
96 hours lab
Prerequisite: NURS 8, NURS 9 or Advanced Placement
Corequisite: NURS 10

Prerequisite: Eligibility for ENGL 68

Concepts of nursing assessment and intervention with application to clients with problems of nutrition, elimination, and the reproductive systems. The Betty Neuman Model serves as the conceptual framework.

**NURS 19 — Preceptorship in Nursing**
2 Units
(May be taken for Pass/No Pass only)
112 hours lab
Prerequisite: NURS 10 or Advanced Placement

Students participate as a pre-licensed health team member immediately prior to graduation. Students assume responsibility for a group of clients under direct supervision of a qualified registered nurse. This course is intended for non-health science majors.

**NURS 20 — Nursing Work Experience Program**
1 to 4 Units
(May be taken for Pass/No Pass only)
(May be taken four times for credit)

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.

**NURS 25 — Essentials of Nutrition**
3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 68

Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span.

**NUTRITION AND FOOD**

**NF 10 — Nutrition for Personal Health and Wellness**
3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 68

Basic principles of human nutrition and their relationship to optimum health. Emphasizes nutrient needs, food selection and weight control during the various life stages from prenatal to adult. Student food intake is evaluated in several ways including computer diet analysis. This course is intended for non-health science majors.

**NF 20 — Principles of Foods with Lab**
3 Units
36 hours lecture
54 hours lab

Introduction to basic food science principles and food preparation procedures with emphasis on ingredient functions and interaction; food preparation techniques and skills; sensory evaluation standards; food safety and sanitation; food preparation equipment and utensils; storage standards; and nutrient retention.

**NF 25 — Essentials of Nutrition**
3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 68

Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method for analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption and metabolism; health, fitness and disease; nutrition in the life span.
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<tr>
<td>NF 25H</td>
<td>Essentials of Nutrition - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td>NF 28</td>
<td>Cultural and Ethnic Foods</td>
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<td>cuisines. Core components: specialized equipment</td>
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<td>and utensils related to cultures; traditional</td>
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<td>foods of selected cultures; geographic factors</td>
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<td></td>
<td>in food availability; global food issues;</td>
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<td></td>
<td>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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<tr>
<td></td>
<td>Exploration of food chemistry, food processing</td>
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<tr>
<td></td>
<td>and technology and how these affect the color,</td>
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<tr>
<td></td>
<td>flavor, texture, aroma and quality of foods.</td>
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<td></td>
<td>Core components: government regulation of</td>
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<td></td>
<td>processing and labeling, sensory evaluation,</td>
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<tr>
<td></td>
<td>scientific research methods, function of water</td>
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<td></td>
<td>in foods, pH and acidity, food processing</td>
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<td></td>
<td>technologies, nutritional labeling, packaging,</td>
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<td>dispersion systems, enzyme reactions, food</td>
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<td></td>
<td>additives, composition and properties of food.</td>
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<tr>
<td>NF 61</td>
<td>Creative Foods</td>
<td>3</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>54 hours lab</td>
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<td></td>
<td>Advisory: NF 20 or food preparation experience</td>
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<td></td>
<td>Instruction in the skills necessary for more</td>
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<td></td>
<td>advanced methods of food preparation. Topics</td>
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<tr>
<td></td>
<td>include garde manger, baking and pastry, and</td>
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<td></td>
<td>international cuisine, techniques of healthy</td>
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<td></td>
<td>cooking, and vegetarian cuisine with emphasis</td>
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<td></td>
<td>placed on knife skills, garnishing, plate</td>
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<td></td>
<td>presentation and creative decorating.</td>
<td></td>
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<tr>
<td>NF 62</td>
<td>Meal Management</td>
<td>3</td>
<td>Degree Applicable, CSU</td>
</tr>
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<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 equivalent food preparation</td>
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<td>experience</td>
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<td></td>
<td>Develop management skills related to food</td>
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<td></td>
<td>preparation, emphasizing planning, preparing,</td>
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<td></td>
<td>and serving adequate and attractive meals while</td>
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<td>managing resources including time, money and</td>
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<tr>
<td></td>
<td>labor. Includes laboratory experience in planning</td>
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<tr>
<td></td>
<td>and preparing and serving meals.</td>
<td></td>
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<tr>
<td>NF 81</td>
<td>Cooking for Your Heart and Health</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<td>(May be taken for option of letter grade or</td>
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<td>12 hours lecture</td>
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<td></td>
<td>18 hours lab</td>
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<td></td>
<td>Principles and techniques of healthful food</td>
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<td></td>
<td>preparation emphasizing the reduction of fat,</td>
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<td></td>
<td>saturated fat, trans fat, cholesterol, and</td>
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<td></td>
<td>sodium, and the increase of fiber and</td>
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<td></td>
<td>nutrients in foods. The course includes</td>
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<td></td>
<td>laboratory experience in preparation of</td>
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<td></td>
<td>health promoting foods and meals.</td>
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<tr>
<td>NF 82</td>
<td>Vegetarian Cuisine</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<td>(May be taken for option of letter grade or</td>
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<td>18 hours lab</td>
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<td></td>
<td>Principles and techniques of vegetarian food</td>
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<td>preparation and investigation of issues related</td>
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<td>to vegetarian eating practices. Includes</td>
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<td>laboratory experience in preparation of</td>
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<td></td>
<td>vegetarian foods and meals.</td>
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<tr>
<td>OCEA 10</td>
<td>Introduction to Oceanography</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<tr>
<td></td>
<td>An introduction to the ocean environment</td>
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<td>including the geologic, physical, and</td>
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<td>ecological aspects of the field. Topics</td>
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<td>include plate tectonics, currents, waves,</td>
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<td>tides, shores and human impact on the oceans.</td>
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<td>Field trips included.</td>
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<tr>
<td>OCEA 10H</td>
<td>Introduction to Oceanography - Honors</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td></td>
<td>An honors course designed to provide an enriched</td>
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<td></td>
<td>experience. Students may not receive credit</td>
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<td>for both OCEA 10 and OCEA 10H.</td>
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<tr>
<td>PHIL 3</td>
<td>Logic in Practice</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 68</td>
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<td>The analysis of language as an instrument of</td>
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<td></td>
<td>sound thinking in morals, politics and everyday</td>
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<td></td>
<td>life. Assists students to analyze an argument,</td>
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<td></td>
<td>avoid faulty conclusions in reasoning, understand</td>
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<td>levels of meaning and kinds of arguments, avoid</td>
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<td>verbal pitfalls, understand the steps of</td>
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<td>scientific methods and identify value</td>
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<td></td>
<td>assumptions.</td>
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<tr>
<td>PHIL 3H</td>
<td>Logic in Practice - Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td>The analysis of language as an instrument of</td>
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<td>sound thinking in morals, politics and everyday</td>
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<td>levels of meaning and kinds of arguments, avoid</td>
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<td>verbal pitfalls, understand the steps of</td>
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<td>scientific methods and identify value</td>
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<td>An honors course designed to provide an enriched</td>
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<td>experience. Students may not receive credit</td>
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<td></td>
<td>for both PHIL 3 and PHIL 3H.</td>
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</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>PHIL 8</td>
<td>Critical Thinking</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>PHIL 9</td>
<td>Critical Thinking and Logical Writing</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>The function and use of formal and informal logic, argument, critical evaluation, and language in written composition.</td>
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<tr>
<td>PHIL 10</td>
<td>Ethics</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<tr>
<td></td>
<td>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. Students may not receive credit for both PHIL 10 and PHIL 12.</td>
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<tr>
<td>PHIL 12</td>
<td>Ethics · Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td>PHIL 15</td>
<td>Major World Religions</td>
<td>3</td>
<td>Degree Applicable, CSU, UC</td>
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<td></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 (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Islam, Judaism, and Christianity.</td>
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### PHOTOGRAPHY

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<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<tbody>
<tr>
<td>PHOT 1</td>
<td>Laboratory Studies: Black and White Photography</td>
<td>1</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for Pass/No Pass only)</td>
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<td></td>
<td>54 hours lab</td>
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<td>Corequisite: PHOT 10 (may have been taken previously)</td>
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<td></td>
<td>Extended black and white laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments. Students who repeat this course will improve skills through further instruction and practice.</td>
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<tr>
<td>PHOT 4</td>
<td>Digital Cameras and Composition</td>
<td>1</td>
<td>Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>18 hours lecture</td>
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<td></td>
<td>Use of digital cameras, lenses, filters, and exposure to compose quality photographs. Shooting assignments are given for analysis in class. Camera will be required after the second week.</td>
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<tr>
<td>PHOT 10</td>
<td>Basic Digital and Film Photography</td>
<td>3</td>
<td>Degree Applicable</td>
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<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>The basic mechanical, optical, and chemical principles of photography, including digital image systems. Laboratory experience involves problems related to camera and image output systems.</td>
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### PHOTO PHOTOGRAPHY

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<th>Course Code</th>
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<tbody>
<tr>
<td>PHIL 15H</td>
<td>Major World Religions · Honors</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<tr>
<td>PHIL 20A</td>
<td>History of Western Philosophy</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>Examines the major western philosophers and philosophical ideas from pre-Socratic times to the Renaissance.</td>
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<tr>
<td>PHIL 20B</td>
<td>History of Western Philosophy</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>Examines the major western philosophy and philosophical ideas from the Renaissance to the twentieth century.</td>
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<tbody>
<tr>
<td>PHOT 11</td>
<td>Advanced Professional Photography</td>
<td>4</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<td></td>
<td>Exploration of current professional photographic techniques. Exploration of current includes studio and field assignments related to problems encountered in professional photography. Topics include but are not limited to medium and large format film and digital cameras and computer basics for professional photographers. Students must furnish SLR camera.</td>
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<tr>
<td>PHOT 12</td>
<td>Photographic Alternatives</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td>Prerequisite: PHOT 10</td>
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<td></td>
<td>Explores the use of continuous tone and alternative black and white techniques and processes. Emphasis will be on solving photographic problems through the use of current techniques such as montage printing, Polaroid and xerographic applications, hand coloring, and emulsion coating (cyanotype, Luminous/Liquid Light) as well as other special techniques.</td>
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<tr>
<td>PHOT 14</td>
<td>Commercial Lighting</td>
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<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>108 hours lab</td>
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<td>Prerequisite: PHOT 10</td>
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<td>Advisory: PHOT 11</td>
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<td></td>
<td>Use of studio equipment, and studio and location lighting techniques used in all aspects of commercial photographic applications. Students must furnish adjustable SLR camera.</td>
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<tr>
<td>PHOT 15</td>
<td>History of Photography</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>Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.</td>
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<td>PHOT 16</td>
<td>Fashion Photography</td>
<td>3</td>
<td>Degree Applicable</td>
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<td></td>
<td>36 hours lecture</td>
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<td></td>
<td>54 hours lab</td>
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<td>Prerequisite: PHOT 11</td>
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<td>Illustrative, editorial and advertising fashion photography. Studio and location production in both black and white and color are emphasized. Aspects of business operation and working with clients are explored.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Degree Applicable</td>
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<tr>
<td>PHOT 17</td>
<td>Photocommunication</td>
<td>3</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>72 hours lab</td>
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<td></td>
<td>Prerequisite: PHOT 10</td>
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<tr>
<td></td>
<td>Explores the application of the photosensitive materials,</td>
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<td></td>
<td>photochemicals and optics. The emphasis will be on the</td>
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<td></td>
<td>aesthetic and expressive uses to which these materials</td>
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<tr>
<td></td>
<td>lend themselves. The student is expected to supply his/</td>
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<td></td>
<td>her own adjustable camera.</td>
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<tr>
<td>PHOT 18</td>
<td>Portraiture and Wedding Photography</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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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Prerequisite: PHOT 10</td>
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<tr>
<td></td>
<td>Techniques and photographic procedures for taking</td>
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<td></td>
<td>informal, formal, environmental and group portraits.</td>
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<td></td>
<td>In depth study and practice in professional wedding</td>
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<tr>
<td></td>
<td>photography.</td>
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<tr>
<td>PHOT 20</td>
<td>Color Photography</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></td>
<td>54 hours lab</td>
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<td></td>
<td>Prerequisite: PHOT 10</td>
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<tr>
<td></td>
<td>An introduction to current methods of producing color</td>
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<tr>
<td></td>
<td>media, color negatives, positive transparencies, and</td>
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<td></td>
<td>outputting color prints.</td>
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<tr>
<td>PHOT 21</td>
<td>Exploring Color Photography</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>54 hours lab</td>
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<td></td>
<td>Prerequisite: PHOT 20</td>
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<tr>
<td></td>
<td>Explores the application of color processes as they</td>
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<tr>
<td></td>
<td>relate to commercial and artistic styles. Emphasis is on</td>
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<td></td>
<td>innovative use of color and contemporary techniques.</td>
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<tr>
<td></td>
<td>Includes media manipulation and unique processing,</td>
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<tr>
<td></td>
<td>coloring negatives, 8x10 Polaroid, digital imagery,</td>
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<tr>
<td></td>
<td>specialized lighting, set building, and quality control.</td>
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<tr>
<td>PHOT 28</td>
<td>Photography Portfolio Development</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<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>Prerequisite: Minimum 12 units of photography at Mt. San</td>
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<td></td>
<td>Antonio College or equivalent preparation</td>
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<tr>
<td></td>
<td>Development of a photography portfolio for job application</td>
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<td></td>
<td>or gallery exhibition purposes.</td>
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<tr>
<td>PHOT 30</td>
<td>Commercial and Illustrative Photography</td>
<td>3</td>
<td>Degree Applicable</td>
</tr>
<tr>
<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>Prerequisite: PHOT 11, PHOT 20</td>
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<tr>
<td></td>
<td>Application of photographic principles to commercial and</td>
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<tr>
<td></td>
<td>illustrative photography. Practical experience in</td>
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<tr>
<td></td>
<td>studio product photography, illustration, fashion, and</td>
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<tr>
<td></td>
<td>architectural photography. Areas of promotion and</td>
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<tr>
<td></td>
<td>pricing will be covered. Both black-and-white and color</td>
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<tr>
<td></td>
<td>media will be used.</td>
<td></td>
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<tr>
<td>PHOT 99</td>
<td>Special Projects in Photography</td>
<td>2</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<tr>
<td></td>
<td>36 hours lecture</td>
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<tr>
<td></td>
<td>In order to offer selected students recognition for their</td>
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<tr>
<td></td>
<td>academic interests and ability and the opportunity to</td>
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<tr>
<td></td>
<td>explore their disciplines to greater depth, the</td>
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<tr>
<td></td>
<td>various departments from time to time offer Special</td>
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<tr>
<td></td>
<td>Projects courses. The content of each course and the</td>
<td></td>
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<tr>
<td></td>
<td>methods of study vary from semester to semester and</td>
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<tr>
<td></td>
<td>depend on the particular project under consideration.</td>
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<td></td>
<td>Students must have an instructor's authorization before</td>
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<tr>
<td></td>
<td>enrolling in this course. Students repeating this course</td>
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<tr>
<td></td>
<td>will make individual contracts of a more advanced nature</td>
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<td></td>
<td>with the instructor to insure that proficiencies are</td>
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<tr>
<td></td>
<td>enhanced.</td>
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**PHYSICAL EDUCATION: ADAPTIVE**

<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-L 2</td>
<td>Physical Fitness for the Physically Limited</td>
<td>.5</td>
<td>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 option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Designed to assist students with a physical limitation</td>
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<td></td>
<td>develop strength, flexibility and endurance through</td>
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<td></td>
<td>weight training. Students are introduced to basic</td>
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<td></td>
<td>skills and strategies of the health-related physical</td>
<td></td>
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<tr>
<td></td>
<td>fitness. Students who repeat this course will improve</td>
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</tr>
<tr>
<td></td>
<td>their skills through further instruction and practice.</td>
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<tr>
<td>PE-L 4</td>
<td>Adaptive Aquatics</td>
<td>1</td>
<td>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 option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<td></td>
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<tr>
<td></td>
<td>Designed to teach basic swimming strokes and aquatic</td>
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<td></td>
<td>skills to individuals with little or no swimming ability</td>
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<td></td>
<td>Students who repeat this course will improve their skills</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>through further instruction and practice.</td>
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</tbody>
</table>

**PHYSICAL EDUCATION: AQUATICS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PE-A 8A</td>
<td>Swimming - Beginning</td>
<td>.5</td>
<td>Degree Applicable</td>
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<tr>
<td></td>
<td>(May be taken four times for credit)</td>
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<td></td>
<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Designed to teach basic swimming strokes and aquatic</td>
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<td></td>
<td>skills to individuals with little or no swimming ability</td>
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<tr>
<td></td>
<td>Students who repeat this course will improve their skills</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>through further instruction and practice.</td>
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<tr>
<td>PE-A 8B</td>
<td>Swimming - Intermediate</td>
<td>.5</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<td>Designed to improve swimming ability for individuals</td>
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<td></td>
<td>who have had instruction in all of the basic strokes and</td>
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<tr>
<td></td>
<td>can swim in deep water. Students who repeat this course</td>
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<td></td>
<td>will improve their skills through further instruction</td>
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<tr>
<td></td>
<td>and practice.</td>
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</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-A 8C</td>
<td>Swimming - Advanced</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<td></td>
<td>Prerequisite: Demonstrate proficiency equivalent to Red Cross Level IV Swimming Test</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>
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<tr>
<td>PE-A 14</td>
<td>Water Polo</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<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>
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<tr>
<td>PE-A 18</td>
<td>Springboard Diving</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<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>
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<tr>
<td>PE-A 20</td>
<td>Aquatic Fitness</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<td></td>
<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>
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<tr>
<td>PE-A 24</td>
<td>Aquatic Off-Season Conditioning</td>
<td>.5 to 1 Unit</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 54 hours activity</td>
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<tr>
<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>
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<tr>
<td>PE-X 6</td>
<td>Baseball - Men</td>
<td>.5 to 3.5 Units</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>
<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>
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<tr>
<td>PE-X 8</td>
<td>Basketball - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<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>
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<tr>
<td>PE-X 10</td>
<td>Basketball - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<tr>
<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<td></td>
<td>Intended for Women'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>
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</tr>
<tr>
<td>PE-X 12</td>
<td>Cross Country - Women</td>
<td>.5 to 3.5 Units</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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<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>
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<tr>
<td>PE-X 16</td>
<td>Football - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td></td>
<td>(May be taken four times for credit)</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td></td>
<td>36 to 180 hours activity</td>
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<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>
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<tr>
<td>PE-X 18</td>
<td>Golf - Men</td>
<td>.5 to 3.5 Units</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 180 hours activity</td>
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<tr>
<td></td>
<td>Designed for Men's Intercollegiate Golf Team candidates and provides 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.</td>
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</tr>
<tr>
<td>PE-X 19</td>
<td>Golf - Women</td>
<td>.5 to 3.5 Units</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>
<td>Intended for Women's Intercollegiate Golf Team candidates and provides 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.</td>
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<tr>
<td>PE-X 24</td>
<td>Soccer - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td></td>
<td>36 to 180 hours activity</td>
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<tr>
<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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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>Notes</td>
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</tr>
<tr>
<td>PE-X 25</td>
<td>Soccer - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Women'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>
</tr>
<tr>
<td>PE-X 26</td>
<td>Softball - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(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 Women's Softball Team candidates and provides instruction in the components of training and conditioning related to the sport of softball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 28</td>
<td>Swimming - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Men's Intercollegiate Swim Team candidates to provide instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 30</td>
<td>Swimming - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for the Men's Intercollegiate Swim Team candidates to provide instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 32</td>
<td>Tennis - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Men's Intercollegiate Tennis Team candidates to provide instruction in the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 34</td>
<td>Tennis - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Women's Intercollegiate Tennis Team candidates to provide instruction in the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 38</td>
<td>Track and Field - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(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 students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 42</td>
<td>Track and Field - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(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 students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 44</td>
<td>Volleyball - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Men's Intercollegiate Volleyball Team candidates to provide instruction in the components of training and conditioning related to the sport of volleyball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 46</td>
<td>Volleyball - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Women's Intercollegiate Volleyball Team candidates to provide instruction in the components of training and conditioning related to the sport of volleyball. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 48</td>
<td>Water Polo - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Men's Intercollegiate Water Polo Team candidates to provide instruction in the components of training and conditioning related to the sport of water polo. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 49</td>
<td>Water Polo - Women</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 50</td>
<td>Wrestling - Men</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Intended for Men's Intercollegiate Wrestling Team candidates to provide instruction in the components and conditioning related to the sport of wrestling. Students who repeat this course will improve through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 70</td>
<td>Pep Squad</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Provides training and experience for members of pep squads or rally units who are directly supportive of Mt. SAC activities. Students who repeat this course will improve skills through further instruction and practice.</td>
</tr>
<tr>
<td>PE-X 88</td>
<td>Pre-Season Athletics</td>
<td>.5 to 3.5 Units</td>
<td>Degree Applicable, CSU, UC</td>
<td>(May be taken four times for credit) (May be taken for option of letter grade or Pass/No Pass) 36 to 180 hours activity Pre-season intercollegiate athletic conditioning, drill technique, strength conditioning, speed development and game play. Students who repeat this course will improve skills and fitness through further instruction and practice.</td>
</tr>
</tbody>
</table>
### Course Descriptions

#### Physical Education: Fitness

**Cluster repeatability:**
Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values.

Clusters:
- PE-F 2A, PE-F 2B
- PE-F 6A, PE-F 6B, PE-F 6C

##### PE-F 2A — Body Building - Beginning
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(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
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(36 to 54 hours activity)
Advanced fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.

##### PE-F 4A — Cardiovascular Conditioning
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(36 to 54 hours activity)
Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.

##### PE-F 6A — Physical Fitness - Beginning
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(36 to 54 hours activity)
Presents beginning components of physical fitness. Students identify 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 6B — Physical Fitness - Intermediate
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(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
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(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 10 — Weight Training
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(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
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(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 four times for credit)
(108 hours activity)
Increased frequency and body conditioning with increased frequency and duration of circuit training and aerobic activity; continued overview of health concepts; heightened emphasis on nutrition, weight management, stress reduction and the benefit of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.

##### PE-F 14 — Exercise Fundamentals
2 Units
Degree Applicable, CSU, UC
(May be taken four times for credit)
(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
0.5 to 1 Unit
Degree Applicable, CSU, UC
(May be taken four times for credit)
(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 four times for credit)
(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.
### Course Descriptions

**PHYSICAL EDUCATION: INDIVIDUAL**

Cluster repeatability:
Credit students are limited to enroll up to 4 times only for any combination of courses within a designated cluster, regardless of the individual course unit values.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 4A, PE-I 4B, PE-I 4C</td>
<td>PE-I 4A, PE-I 4B, PE-I 4C</td>
</tr>
<tr>
<td>PE-I 8A, PE-I 8B, PE-I 8C</td>
<td>PE-I 8A, PE-I 8B, PE-I 8C</td>
</tr>
<tr>
<td>PE-I 30A, PE-I 30B</td>
<td>PE-I 30A, PE-I 30B</td>
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<tr>
<td>PE-I 31A, PE-I 31B</td>
<td>PE-I 31A, PE-I 31B</td>
</tr>
<tr>
<td>PE-I 37A, PE-I 37B, PE-I 37C</td>
<td>PE-I 37A, PE-I 37B, PE-I 37C</td>
</tr>
<tr>
<td>PE-I 40A, PE-I 40B, PE-I 40C</td>
<td>PE-I 40A, PE-I 40B, PE-I 40C</td>
</tr>
</tbody>
</table>

**Course Descriptions**

**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 activity
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 four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
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 four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
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 four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
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**
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**
1 Unit
Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
71 hours activity
A training program directed toward physical agility testing approximating the testing process required by various law enforcement and fire agencies. Students who repeat this course will improve skills through further instruction and practice.

**PE-F 52 — Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry**
1 Unit
Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
Students who repeat this course will improve skills through further instruction and practice.

**PE-F 53 — Physical Training for the Basic Fire Academy**
1 Unit
Degree Applicable, CSU
(May be taken four times for credit)
(May be taken for option of letter grade or Pass/No Pass)
68 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
Administration of physical ability test examination. Includes nutrition, safety, body mechanics, exercise guidelines and execution of fire-related tasks. Successful completion of this course is required by various fire agencies for employment. Students must obtain test packet from website: firepat.mtsac.edu prior to enrolling. Repeating this course will allow for renewal of certificate and improvement of technique through further instruction and practice.

**PE-I 18A — Golf - 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 108 hours activity
Basic fundamentals of golf. Emphasis on technique, strategy, and rules. Students who repeat this course will improve skills through further instruction and practice.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Units</th>
<th>Degree Applicable, CSU, UC</th>
<th>Activity Hours</th>
<th>Credit/Grade Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 18B — Golf - Intermediate</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 18C — Golf - Advanced</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 19 — Self Defense/Martial Arts</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 30A — Filipino Martial Arts - Beginning</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 30B — Filipino Martial Arts - Intermediate</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 31A — Jiujitsu - Beginning</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 31B — Jiujitsu - Intermediate</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 32A — Mixed Martial Arts</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 33 — Kickboxing</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 34 — Women's Self Defense</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 35 — Karate</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 36 — Tai Chi Chuan - Beginning</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 37A — Tai Chi Chuan - Intermediate</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
<tr>
<td>PE-I 37B — Tai Chi Chuan - Advanced</td>
<td>Degree Applicable, CSU, UC</td>
<td>.5 to 1 Unit</td>
<td>May be taken for option of letter grade or Pass/No Pass</td>
<td>36 to 54 hours activity</td>
<td>May be taken four times for credit</td>
</tr>
</tbody>
</table>

*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 Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-I 40A</td>
<td>Tennis - Beginning</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
</tr>
<tr>
<td>PE-I 40B</td>
<td>Tennis - Intermediate</td>
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<td>PE-I 40C</td>
<td>Tennis - Advanced</td>
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<td>PE-S 2</td>
<td>Basketball</td>
<td>.5</td>
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<td>PE-S 10</td>
<td>Soccer</td>
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<tr>
<td>PE-S 12</td>
<td>Baseball</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
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<td>PE-S 24A</td>
<td>Volleyball - Beginning</td>
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<tr>
<td>PE-S 24B</td>
<td>Volleyball - Intermediate</td>
<td>.5</td>
<td>Degree Applicable, CSU, UC</td>
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</table>

**Course Descriptions**

**PE-I 51 — Iyengar Yoga**
- .5 to 1 Unit
- 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.

**PE-I 52 — Individual Sports**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- Individual sports technique enhancement. Includes cardiorespiratory, flexibility, muscle strength and endurance training modes. Students who repeat this course will improve their skills through further instruction and practice.

**PE-S 12 — Baseball**
- .5 to 1 Unit
- 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.

**PE-S 24B — Volleyball - Intermediate**
- .5 to 1 Unit
- Degree Applicable, CSU, UC
- Designed for individuals with previous experience in techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.
Course Descriptions

PE 124C — Volleyball - Advanced
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 individuals with previous experience in advanced techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL EDUCATION: THEORY

PE 3 — First Aid and CPR
Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
Provides training, including laboratory experience in caring for victims of injuries, sudden illness and other medical emergencies; includes Community CPR. Students who successfully pass all requirements will earn the appropriate American Red Cross First Aid Certificate and/or CPR Certificate.

PE 5 — Advanced First Aid/CPR/Emergency Response
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68
Provides training and certifications, including laboratory experience for developing the First Aid and CPR skills required by public safety personnel, athletic trainers, emergency response team members, flight attendants, coaches and nurses. Students who successfully pass all requirements will receive an American Red Cross First Aid Certificate in Emergency Response and/or CPR for the Professional Rescue.

PE 10 — Fundamentals of Sports
Degree Applicable, CSU, UC
36 hours lecture
Instruction in the theory and technique of various selected sports: Basketball, Baseball, Cross Country, Football, Golf, Soccer, Softball, Swimming, Tennis, Track and Field, Volleyball, Water Polo and/or Wrestling.

PE 13 — Sports Officiating
Degree Applicable, CSU, UC
54 hours lecture
Introduction to rules, regulations and career opportunities of various team and individual sports.

PE 15 — Administration of Fitness Programs
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
Provides leadership training and administrative skills related to fitness specialists, personal trainers and physical educators. Students will explore curriculum topics and practical skills related to careers in fitness and physical education.

PE 17 — Introduction to Physical Education
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Introduction and orientation to physical education as a profession and academic discipline. Explores sub-disciplines, opportunities in the field, philosophy, scientific basis and analysis.

PE 19 — Introduction to Care/Prevention of Activity/Sports-Related Injuries
Degree Applicable, CSU, UC
54 hours lecture
Introduction, including laboratory experience, in the techniques and procedures for prevention and treatment of activity and sports-related injuries. Includes the responsibilities of the athletic trainer, policies and procedures of the athletic training room and the operation of rehabilitative modalities.

PE 24 — Kinesiology
Degree Applicable, CSU
2 Units
(May be taken for option of letter grade or Pass/No Pass)
9 hours lecture
The study of movement as it relates to exercise and the interrelationships of body segments involved in human movement activity, actions of joints, nerves and muscle exercise.

PE 33 — Fitness Assessment and Healthy Lifestyles
Degree Applicable
5 Units
(May be taken for option of letter grade or Pass/No Pass)
9 hours lecture
An integrated approach to healthy lifestyles. Includes pre and post fitness assessments, basic nutrition analysis, lifestyle behaviors and stress management. Interpretation of results includes goal-setting principles and development of basic exercise program.

PE 34 — Fitness for Living
Degree Applicable, CSU, UC
3 Units
54 hours lecture
Survey and analysis of the components of fitness. Effects of fitness on optimal health, concepts of human movement, fitness program design, stress management, nutrition and weight control.

PE 38 — Physiology of Exercise for Fitness
Degree Applicable
3 Units
54 hours lecture
Theory of basic physiological concepts as they pertain to exercise training and the prescription of individual fitness programs.

PE 39 — Techniques of Fitness Testing
Degree Applicable, CSU
2 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
Theory and technique of performing fitness testing, assessment, evaluation, and recommendation. Includes related laboratory experience and practical applications.

PE 40 — Techniques of Teaching Cardiovascular Exercise
Degree Applicable
2 Units
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
Overview of the principles and techniques of teaching cardiovascular exercise. Includes both theory and practical instruction of cardiovascular exercise, special needs considerations, professional responsibilities and liabilities, group exercise design, treadmill, cycling and varieties of cardiovascular exercise.

PE 41 — Techniques of Teaching Weight Training
Degree Applicable
2 Units
(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
Degree Applicable, CSU, UC
3 Units
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
Degree Applicable, CSU, UC
3 Units
(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 Rescue.

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PE 82 — Work Experience - Athletic Training 2 Units
(May be taken four times for credit)
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. 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.

PE 85 — Fitness Specialist Internship 1 Unit
(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 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. 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.

PHSC 3 — Energy Science 4 Units
54 hours lecture
54 hours lab
Degree Applicable, Degree Applicable, CSU, UC
Provides a broad technical understanding of the physical principles underlying the various forms of energy production, the role of energy in modern society, and an understanding of the wider environmental and societal impacts of different energy production technology choices. Course topics will include: fossils fuels, nuclear energy, hydro, wind, solar energy, biofuels, and energy distribution and storage. Field trips required.

PHSC 7L — Physical Science Laboratory 1 Unit
54 hours lab
Degree Applicable, Degree Applicable, CSU, UC
Corequisite: PHSC 7
Laboratory topics will parallel the course content of Physical Science lecture.

PHTH 81 — Physical Therapy Aide 4 Units
54 hours lecture
54 hours lab
Degree Applicable, Degree Applicable, CSU, UC
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.

PAP 101 — Fundamentals for Physician Assistant Preparatory Program 8 Units
Not Degree Applicable
144 hours lecture
Provides an overview of physician assistant fundamentals, ethics, financial aid, and interviewing techniques. Overviews physician assistant curriculum in family practice, pediatrics, orthopedics and various other topics presented in physician assistant programs. Analyzes stress coping mechanisms and time management for physician assistant students.
## Course Descriptions

### PHYS 4B — Engineering Physics
5 Units
Degree Applicable, CSU, UC

- **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
Degree Applicable, CSU, UC

- **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
Degree Applicable, CSU

(May be taken four times for credit)

- **36 hours lecture**
- **Corequisite:** 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 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 their skills by further instruction and practice.

### POLITICAL SCIENCE

#### POLI 1 — Political Science
3 Units
Degree Applicable, CSU, UC

- **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
Degree Applicable, CSU, UC

- **54 hours lecture**
- **Prerequisite:** Acceptance into the Honors Program
- **Prerequisite:** POLI 1 or POLI 1H

Comparative study of constitutional principles, governmental institutions, political processes, and ideologies in selected countries. 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
Degree Applicable, CSU, UC

- **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 3 — Introduction to International Relations
3 Units
Degree Applicable, CSU, UC

- **54 hours lecture**
- **Prerequisite:** POLI 1 or POLI 1H
- **Advisory:** Eligibility for ENGL 1A

Surveys the forces shaping California government and analyzes the operation of governmental institutions within California and the political and fiscal challenges facing California.

### PSYCHOLOGY

#### PSYC 1A — Introduction to Psychology
3 Units
Degree Applicable, CSU, UC

- **54 hours lecture**
- **Advisory:** Eligibility for ENGL 1A

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 diversity issues.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
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<td>PSYC 1A</td>
<td>Introduction to Psychology - Honors</td>
<td>3</td>
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<td>CSU, UC</td>
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<td>PSYC 5</td>
<td>Psychology of Reasoning and Problem Solving</td>
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<td>Statistics for the Behavioral Sciences</td>
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<td>PSYC 17</td>
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<td>PSYC 19</td>
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<td>PSYC 25</td>
<td>The Psychology of Women</td>
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<td>PSYC 26</td>
<td>Psychology of Sexuality</td>
<td>3</td>
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<td>PSYC 30</td>
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<td>PSYC 33</td>
<td>Psychology for Effective Living</td>
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<td>PSYC 40</td>
<td>Introduction to Interviewing and Counseling</td>
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<td>Special Projects in Psychology</td>
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Course Descriptions

PSYC 1A — Introduction to Psychology - Honors 3 Units
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Develops an understanding of the basic principles underlying behavior and cognition. The subject matter and methods of scientific psychology are presented. Topics include scientific methodology, history, biopsychology, sensation, perception, states of consciousness, learning, memory, forgetting, language, cognition, intelligence, life-span development, personality, stress, health, motivation, emotions, psychopathology, psychotherapeutic approaches, and social factors. An honors course designed to provide an enriched experience. Students may not receive credit for both PSYC 1A and PSYC 1AH.

PSYC 1B — Biological Psychology 3 Units
54 hours lecture
Prerequisite: PSYC 1A or PSYC 1AH
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
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) style is taught and used as lab experience. Includes systematic observation, survey development, correlational studies, and design, execution, and evaluation of experiments.

PSYC 5 — Psychology of Reasoning and Problem Solving 3 Units
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
54 hours lecture
54 hours lab
Prerequisite: PSYC 1A or PSYC 1AH and eligibility for MATH 110
Statistical principles of the behavioral sciences emphasizes research design, scales of measurement, distributions, graphing, descriptive statistics, measures of central tendency, measures of variability, z-test, independent and dependent t-tests, inferential statistics, confidence intervals, linear correlations and regression, and analysis of variance, including multivariate factorial designs and chi square analyses. Statistical analyses through the use of computerized statistical packages are interpreted through lab experience.

PSYC 14 — Developmental Psychology 3 Units
54 hours lecture
Advisory: Eligibility for ENGL 1A
Examines the psychological principles of human development across the lifespan, from birth to death. This course does not fulfill the Title 22 requirements for Child Development majors.

PSYC 17 — Introduction to Human Services 3 Units
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
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
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
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Explores the factors involved in establishing and maintaining intimate sexual relationships. The focus of the course is on the findings of social psychologists concerning sexuality and love relationships in our culture.

PSYC 33 — Psychology for Effective Living 3 Units
54 hours lecture
Emphasis on comprehension and application of psychological principles to interpersonal relationships, personal growth, sexuality, vocation, marriage, parenting, aging, and other circumstances encountered in the life cycle. Considers personality development and psychological disorders as well as therapeutic approaches.

PSYC 40 — Introduction to Interviewing and Counseling 3 Units
54 hours lecture
Provides a basic overview of the helping processes. Stresses application of counseling theories, helping skills, and consultation theories to allow exploration of self as a helper and learn facilitating skills to bring about change. Emphasis on establishing rapport, obtaining information and developing a supportive relationship in a variety of mental health settings. Students may not receive credit for both PSYC 40 and MENT 40.

PSYC 50 — Psychology of Human Relations 3 Units
54 hours lecture
Prerequisite: Eligibility for ENGL 68
Develops students' understanding of themselves and their social relationships. Emphasizes self-evaluation, experience in small groups, becoming sensitive to one's own feelings and to the feelings of others and the contributions of the behavioral sciences as resources for effective living.

PSYC 99 — Special Projects in Psychology 2 Units
(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.
Course Descriptions

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 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. 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)
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 story developments. 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 Newswires software. Students will rewrite news wire copy as well as create stories from interviews and from covering news events, including the incorporation and selection of sound bites from actualities. Emphasis will be on factual and concise content and the ability to work under deadline.

R-TV 06 — Broadcast Traffic Reporting 1.5 Units
Degree Applicable
54 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 07A — 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 07B — Advanced Commercial Voice-Overs 3 Units
Degree Applicable
36 hours lecture
54 hours lab
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 09 — Broadcast Sales and Promotion 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
Strategies and legalities of advertising time sales for radio and television including Federal Communications Commission (FCC) requirements, demographic targeting, marketing strategies, and working with agencies. Includes creation of contests and promotional campaigns.

R-TV 10 — Radio Management and Programming 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 01 (may have been 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.

R-TV 11A — Beginning Radio Production 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: R-TV 01 (may have been taken previously)
Operation of standard radio production equipment for both tape-based and digital production utilizing ProTools technology. Production skills concentrate on the use of voice, music and sound effects applied to a variety of elements including commercials and newscasts.

R-TV 11B — Advanced Radio Production 3 Units
Degree Applicable
54 hours lecture
Corequisite: R-TV 11A
Preparation of R-TV 11A
Build upon the basic understanding of linear and non-linear recording, editing, and mixing as learned in R-TV 11A. Develop an understanding of the core concepts and skills required to work in a professional recording studio environment using ProTools, the industry standard for state of the art digital work stations.

R-TV 12 — Commercial Copywriting 3 Units
Degree Applicable
54 hours lecture
Advisory: R-TV 01
Covers the creation and production of radio and television commercials. Includes using demographic research to target specific audiences, truth in advertising, slogan and campaign development, character creation, commercial formats, and the use of visual and audio appeals.
## Course Descriptions

### R-TV 14 — Media Aesthetics 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Prerequisite: ENGL 67  
Media aesthetics for television and film presentation. Stresses critical, theoretical and practical analysis. Material is presented from a producer/artist point of view and is intended for those pursuing a career in film, television, and other electronic visual media, presenting material from the producer/artist point of view.

### R-TV 15 — Broadcast Business Practices 3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: R-TV 01 (may have been taken previously)  
Radio and television industry as a business for profit. Basic techniques in negotiating with station management and agents as well as dealing with contracts, residuals, re-use rights, mergers, protection of intellectual properties, union representation and Federal Communications Commission (FCC) law. Professional ethics and broadcasters’ responsibilities to their audiences are also discussed.

### R-TV 16 — Broadcast Career Preparation 3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: R-TV 11A or R-TV 19A  
Students taking this class will prepare their audio and/or video demo tapes and resumes in order to obtain and maintain an entry-level job in the broadcast industry. Emphasis will be placed on employment searches, interview techniques, involvement in professional organizations and business strategies.

### R-TV 17 — Internet Radio and Podcasting 3 Units  
Degree Applicable  
54 hours lecture  
Corequisite: R-TV 01 and R-TV 11A (may have been taken previously)  
Covers all aspects of Internet broadcasting and podcasting including programming, announcing, promotions, and legal and copyright issues through the use of an actual Internet radio station.

### R-TV 18 — Writing for Television/Film 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Advisory: R-TV 01  
Characterization, visualization, structure and form in various types of writing for television and motion picture production.

### R-TV 19A — Beginning Television Production 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Corequisite: R-TV 01 (may have been taken previously)  
Basic video production using studio, remote multicamera, and film-style techniques.

### R-TV 19B — Advanced Television Production 3 Units  
Degree Applicable, CSU  
(May be taken for option of letter grade or Pass/No Pass)  
36 hours lecture  
54 hours lab  
Prerequisite: R-TV 19A  
Advanced video production techniques emphasizing film-style aesthetics and production.

### R-TV 20 — Television News Production 3 Units  
Degree Applicable  
54 hours lecture  
18 hours lab  
Prerequisite: R-TV 05 or R-TV 11A or R-TV 19A  
Advisory: JOUR 111  
TV newscasting using writing, announcing, production, direction, graphics, and editing skills both in and out of the studio.

### R-TV 21 — Remote Television Production and Engineering 3.5 Units  
Degree Applicable  
54 hours lecture  
36 hours lab  
Prerequisite: R-TV 19A  
Students learn remote video production using both multi-camera and single camera techniques. Topics include video engineering, directing, and remote production truck setup.

### R-TV 22 — Editing for Film and Television 3 Units  
Degree Applicable  
54 hours lecture  
Aesthetics and use of non-linear editing software for film and television.

### R-TV 26 — Current Issues in Entertainment Law 3 Units  
Degree Applicable  
54 hours lecture  
Advisory: R-TV 01 or PLGL 30  
Overview of the major legal and FCC regulatory issues facing broadcasting, cable and developing media. Also covers the growing importance of intellectual property law as it applies to digital media and the Internet.

### R-TV 27 — Radio Drama 3 Units  
Degree Applicable  
54 hours lecture  
Prerequisite: R-TV 07  
The practical and artistic skills needed for the performance of radio drama such as voicing, directing, writing and sound design combined with broadcasting history and communication theory.

### R-TV 30 — Introduction to Careers in Entertainment 2 Units  
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 D-J, news anchor/reporter, sports reporter, commercial voice-over artist, production director, writer, producer and director.

### R-TV 31 — History of Radio DJs 3 Units  
Degree Applicable  
54 hours lecture  
Traces the history of music 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  
Prerequisite: 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 34 — On-Camera Performance 1.5 Units  
Degree Applicable  
27 hours lecture  
Advisory: R-TV 01  
On-camera techniques used in news and sports anchoring and reporting including make-up, hair, wardrobe and overall presentation.

### R-TV 97A — Radio/Entertainment Industry Seminar 1 Unit  
Degree Applicable  
(May be taken four times for credit)  
18 hours lecture  
Prerequisite: R-TV 01 and any other three R-TV units  
Corequisite: R-TV 97B  
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.
## Course Descriptions

### R-TV 99 — Radio/TV Special Projects 2 Units
(May be taken four times for credit)

75 hours lab
Prerequisite: R-TV 01 and any other three R-TV units
Corequisite: R-TV 97A
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.

### R-TV 97C — KSAK Radio/Internet Radio Internship 1 to 2 Units
(May be taken four times for credit)

75 to 150 hours lab
Prerequisite: R-TV 11A
Corequisite: R-TV 01 and R-TV 02 (may have been taken previously)
Regular and continuing experience in the operation of the College radio station or the college Internet station. Students may select roles involving on-air announcing, production, programming and news. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

### R-TV 97B — Radio/Entertainment Industry Internship 1 Unit
(May be taken four times for credit)

75 to 225 hours lab
Prerequisite: Completion of 12 Television or Film course units or the equivalent. 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.

### RAD 30 — Radiographic Pathology 1.5 Units
Degree Applicable

24 hours lecture
Corequisite: RAD 63
Advisory: RAD 64
Concepts of disease and pathological processes demonstrated in diagnostic radiography; etiology; diagnosis, and prognosis of systemic disease processes.

### RAD 31 — Fluoroscopy 2 Units
Degree Applicable

36 hours lecture
Corequisite: RAD 64
Advisory: RAD 53B
Components and characteristics of fluoroscopic systems including regulatory requirements for operation. Includes quality control and quality assurance systems relative to radiology.

### RAD 32 — Digital Imaging in Radiology 2 Units
Degree Applicable

36 hours lecture
Prerequisite: RAD 52A
Imparts an understanding of the 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.

### RAD 50 — Radiologic Technology 3 Units
Degree Applicable

54 hours lecture
Prerequisite: Admission to the Radiologic Technology Program, Eligibility for MATH 71, and CHEM 10
Corequisite: RAD 91
Subjects related to the hospital environment: radiation protection, darkroom technique, general principles of x-ray production and production of the radiograph. Introduces the student to professional ethics and the legal considerations of health care.

### RAD 52A — Techniques of Radiologic Technology 5 Units
Degree Applicable

263 hours lab
Prerequisite: ANAT 10A
Corequisite: RAD 61A
Practical application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructors. Emphasis on chest, upper and lower limbs, from digits to shoulder, from toes to knee, abdomen, and kidney, ureters, and bladder (KUB).

### RAD 52B — Techniques of Radiologic Technology 2.5 Units
Degree Applicable

140 hours lab
Prerequisite: RAD 52A
Continued application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructor. Emphasis on upper and lower limbs.

### RAD 53 — Techniques of Radiologic Technology 5 Units
Degree Applicable

263 hours lab
Prerequisite: RAD 52B
Corequisite: RAD 62A
Practical application of radiographic theories and principles in an affiliated hospital under direct supervision of clinical personnel and college instructors. Emphasis on abdominal and thoracic viscera, spine, common contrast exams, and generalized skull radiography.

### RAD 54 — Techniques of Radiologic Technology 3 Units
Degree Applicable

167 hours lab
Prerequisite: RAD 62A
Practical experience in a hospital setting under the supervision of clinical personnel and college instructors. Emphasis on skull, portable radiography, surgical studies and the development of nursing skills as it relates to radiologic technology.
RAD 55A — Techniques of Radiologic Technology 7.5 Units
Degree Applicable, CSU
383 hours lab
Corequisite: RAD 63
Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on cystograms, urethrogram, foreign body localization, tomoscopy, and venography.

RAD 55B — Techniques of Radiologic Technology 2.5 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
140 hours lab
Prerequisite: RAD 55A
Continued experience in a hospital setting under guidance of clinical personnel and college instructors. Emphasis on ERCP, sialogram, retrograde and other advanced procedures.

RAD 56 — Techniques of Radiologic Technology 7 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
380 hours lab
Corequisite: RAD 64
Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on basic vascular procedures (angiograms), mammograms, tube placement, myelograms, arthrograms, and hysterosalpingograms.

RAD 57 — Techniques of Radiologic Technology 4.5 Units
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
239 hours lab
Corequisite: RAD 64
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.

RAD 61A — Theory of Radiologic Technology 4 Units
Degree Applicable, CSU
72 hours lecture
Prerequisite: RAD 50, MEDI 90
Corequisite: RAD 52A, RAD 61B, RAD 61C
Concepts of radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the X-ray machine and fluoroscopic equipment and procedures.

RAD 61B — Radiographic Positioning 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RAD 61A
Fundamentals of radiographic positioning of the upper and lower extremities, standard chest and abdomen; to include general radiologic anatomy, terminology, radiation protection, and ethics.

RAD 61C — Radiologic Technology Seminar 1 Unit
Degree Applicable, CSU
18 hours lecture
18 hours lab
Corequisite: RAD 51A
Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and KUB. Documentation of radiographic exposure techniques.

RAD 62A — Theory of Radiologic Technology 4 Units
Degree Applicable, CSU
72 hours lecture
Prerequisite: AHAT 10A, RAD 61A
Corequisite: RAD 53, RAD 62B and RAD 62C
Areas of X-ray production and interaction with matter, X-ray emissions, beam restricting devices, grids, film processing, screens, radiographic quality and special equipment/apparatuses and procedures.

RAD 62B — Radiographic Positioning 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RAD 62A
Fundamentals of radiographic positioning of the abdomen, digestive and urinary systems, thorax, vertebral column, general cranial, facial and urinary system, abdomen and general cranial radiography.

RAD 62C — Radiologic Technology Seminar 1 Unit
Degree Applicable, CSU
18 hours lecture
18 hours lab
Corequisite: RAD 53, RAD 62B and RAD 62C
Advanced analysis of the technical performance of radiographic examination of the vertebral column, bony thorax, digestive system, urinary system, abdomen and general cranial radiography.

RAD 63 — Theory of Radiologic Technology 4 Units
Degree Applicable, CSU
72 hours lecture
Prerequisite: RAD 54
Corequisite: RAD 50 and RAD 55
Special radiographic studies. Contrast media usage and radiographic pathology. Includes principles of radiation protection and radiobiology.

RAD 64 — Theory of Radiologic Technology 4 Units
Degree Applicable, CSU
72 hours lecture
Prerequisite: RAD 63
Corequisite: RAD 31 and RAD 56
An analytical review of the radiologic technology core courses. Serves as preparation for State Certification and National Registry Exams.

RAD 65 — Radiologic Technology Seminar 1 Unit
Degree Applicable, CSU
18 hours lecture
18 hours lab
Corequisite: RAD 65A
Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and KUB. Documentation of radiographic exposure techniques.

RAD 65B — Radiographic Positioning 3 Units
Degree Applicable, CSU
54 hours lecture
Corequisite: RAD 65A
Fundamentals of radiographic positioning of the upper and lower extremities, standard chest and abdomen; to include general radiologic anatomy, terminology, radiation protection, and ethics.
### Course Descriptions

#### RESPIRATORY THERAPY

**RESD 50 — Theory and Principles of Respiratory Therapy** 2 Units  
Degree Applicable, CSU  
36 hours lecture  
Corequisite: RESD 51A and RESD 52  
Properties of liquids, gases, kinetic theory of gases, units of measurements, gas laws, lung mechanics, flow of fluids, and pressure measuring devices used in respiratory therapy.

**RESD 51A — Respiratory Therapy Science** 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Prerequisites: ANAT 10A, ANAT 10B, CHEM 10, MATH 51, MEDI 90  
Corequisite: RESD 50 and RESD 52  
Basic principles of respiratory therapy equipment. Emphasis is placed on methods of administration of therapy and application of specialized equipment in the clinical setting. Basic respiratory physiology and oxygen transport.

**RESD 51B — Respiratory Therapy Science** 4 Units  
Degree Applicable, CSU  
54 hours lecture  
54 hours lab  
Prerequisites: ANAT 10A and RESD 51A  
Corequisite: RESD 53 and RESD 60  
Basic principles of respiratory therapy equipment will be presented. Emphasis is placed on the methods of administration of therapy and the application of specialized equipment in the acute care setting and the application of mechanical ventilation in the clinical setting.

**RESD 52 — Pulmonary Anatomy and Physiology** 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: RESD 50 and RESD 51A  
Anatomy and physiology of the cardiopulmonary, neurological and renal systems emphasizing clinical application of physiological concepts.

**RESD 53 — Cardiopulmonary Pathophysiology** 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: RESD 51B  
Anatomic alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.

**RESD 55 — Adult Respiratory Intensive Care** 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: RESD 56B  
Provides an in-depth approach to the current modalities and monitoring tools of respiratory care. Emphasis is on the adult patient who is critically ill with primary and/or secondary cardiopulmonary failure.

**RESD 56A — Techniques of Respiratory Therapy** 2.5 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
143 hours lab  
Prerequisite: RESD 51B  
Corequisite: RESD 57B  
Clinical 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.

**RESD 56B — Techniques of Respiratory Therapy** 6 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
324 hours lab  
Prerequisite: RESD 56A  
Corequisite: RESD 55 and RESD 58  
Clinical practice in the 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 ventilation procedures are introduced.

**RESD 56C — Techniques of Respiratory Therapy** 2.5 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
143 hours lab  
Prerequisite: RESD 55  
Corequisite: RESD 55 and RESD 58  
Clinical practice in the hospital setting. Continued practice of intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients.

**RESD 56D — Techniques of Respiratory Therapy** 2.5 Units  
Degree Applicable, CSU  
(May be taken for Pass/No Pass only)  
143 hours lab  
Prerequisite: RESD 56C  
Corequisite: RESD 59 and RESD 60  
Clinical practice in the hospital setting. Application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric 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 four semesters of the Respiratory Therapy Program.

**RESD 57A — Special Procedures for Respiratory Care** 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Prerequisite: RESD 50  
Corequisite: RESD 56A  
Topics in the basic application and skills development in bronchoscopy, blood drawing and analysis, chest drainage, microbiology for respiratory care, IPPB, and blood gas data analysis.

**RESD 57B — Special Procedures for Respiratory Care** 1.5 Units  
Degree Applicable, CSU  
27 hours lecture  
Prerequisite: RESD 51B  
Corequisite: RESD 56A  
Basic application and skills development in respiratory pharmacology, bronchoscopy, and blood drawing and analysis.

**RESD 58 — Neonatal Intensive Care** 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: RESD 56B and RESD 55  
Emphasizes neonatal pathophysiologies, etiologies, and ramifications. Encompasses the newest techniques in monitoring equipment used in the treatment and maintenance of the premature infant. Designed primarily for respiratory therapists and nurses.

**RESD 59 — Respiratory Therapeutic Modalities** 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: RESD 56C and RESD 61  
Advanced practitioner skills development pertinent to the application of respiratory therapy equipment with emphasis on the machine-patient interface.

**RESD 60 — Comprehensive Pulmonary Assessment** 2 Units  
Degree Applicable, CSU  
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 — Current Issues in Respiratory Care** 3 Units  
Degree Applicable, CSU  
54 hours lecture  
Corequisite: RESD 56D and RESD 59  
Explores recently developed health care techniques and strategies for diagnostics, assessment, and therapeutics and their impact on respiratory therapists.
SERVICE LEARNING

SL 1 — Service Learning/Seminar for Health Occupations 6 Units
Degree Applicable, CSU
36 hours lecture
216 hours lab
Prepare students with service experiences in health occupations.
Examines and profiles community health care needs. Interfaces with various patient populations. Weekend and overnight labs to various areas within California may be offered. Out-of-class projects required.

SL 2 — Linked Service Learning 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
54 hours lab
Links service learning with content-specific courses across the college curriculum. Allows students to explore interests or career objectives through community involvement and service. Requires arranged hours of community-based activity. Must be enrolled concurrently in a course with a service learning Link.

SL 3 — Service Learning/Seminar in Community Involvement 3 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
108 hours lab
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 4 — Service Learning and Community Involvement 1 Unit
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
9 hours lecture
27 hours lab
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 99 — Special Projects in Service Learning 1 Unit
Degree Applicable, CSU
(May be taken for Pass/No Pass only)
36 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, from time to time various departments offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor’s authorization before enrolling in this class.

SIGN LANGUAGE, INTERPRETING

SIGN 101 — American Sign Language 1 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Fundamentals of American Sign Language. Preparation for visual/gestural communication followed by intensive work on comprehension skills; modeling of grammatical structures; general information about Deaf Culture.

SIGN 102 — American Sign Language 2 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SIGN 80 or SIGN 101 or equivalent fluency
Further study of fundamentals of American Sign Language focusing on comprehension skills, grammatical structures and practice in the expressive aspects of the language, as well as exposure to Deaf culture.

SIGN 103 — American Sign Language 3 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SIGN 81 or SIGN 102 or equivalent fluency
Further study of American Sign Language focused on developing comprehension skills, advanced grammatical structures with continued emphasis on expressive skills in narrative. Aspects of Deaf culture will be studied.

SIGN 104 — American Sign Language 4 4 Units
Degree Applicable, CSU, UC
72 hours lecture
Prerequisite: SIGN 82A or SIGN 104 or equivalent fluency
Emphasis on expressive/conversational skills in American Sign Language and English translation by comparing texts in both languages.

SIGN 105 — American Sign Language 5 4 Units
Degree Applicable, CSU
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 106 — Fingerspelling 2 Units
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass only)
36 hours lecture
Prerequisite: SIGN 81 or SIGN 102
Skill development in receptive and expressive fingerspelling.

SIGN 201 — Deaf Perspectives 3 Units
Degree Applicable, CSU
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 — American Deaf Culture 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: SIGN 103
Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.

SIGN 210 — American Sign Language Structure 3 Units
Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: SIGN 104
Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.

SIGN 215 — Principles of Interpreting 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: SIGN 102, Eligibility for ENGL 1A
Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter’s role and ethical standards.

SIGN 220 — Translation: American Sign Language/English 3 Units
Degree Applicable, CSU
54 hours lecture
Prerequisite: SIGN 104
54 hours lecture
Prerequisite: SIGN 102
Translation: American Sign Language/English translation by comparing texts in both languages.

SIGN 225 — Ethical Decision Making for Interpreters 2 Units
Degree Applicable
36 hours lecture
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
Degree Applicable
(May be taken for option of letter grade or Pass/No Pass only)
36 hours lecture
Prerequisite: SIGN 223
The development of cognitive processing skills necessary for interpreting between ASL and English. Constructing and deconstructing meaning, memory, listening and attending will be covered. Includes memory building, restating, cloze, and listening exercises.
Course Descriptions

SIGN 231 — Interpreting  4 Units  Degree Applicable
54 hours lecture
54 hours lab
Prerequisite: SPCH 1A 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  Degree Applicable
54 hours lecture
54 hours lab
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  Degree Applicable
(May be taken for Pass/No Pass only)
54 hours lab
Prerequisite: SIGN 231
Develops and hones interpreting skills in supervised interpreting situations.

SIGN 240 — Vocabulary Building for Interpreters  2 Units  Degree Applicable
(May be taken for Pass/No Pass only)
36 hours lecture
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  Degree Applicable
(May be taken for Pass/No Pass only)
18 hours lecture
27 hours lab
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  Degree Applicable
(May be taken for Pass/No Pass only)
18 hours lecture
27 hours lab
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.

SOC 1 — Sociology  3 Units  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Eligibility for ENGL 68
A systematic study of human relations and social structures which emphasizes the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change.

SOC 1H — Sociology · Honors  3 Units  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
Social 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.

SOC 2 — Sociology  3 Units  Degree Applicable, CSU, UC
54 hours lecture
Advisory: Eligibility for ENGL 68
The application of basic sociological principles and concepts to the study and understanding of social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems.

SOC 2H — Sociology · Honors  3 Units  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
A systematic study of human relations and social structures which emphasizes the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 2 and SOC 2H.

SOC 4 — Introduction to Gerontology  3 Units  Degree Applicable, CSU, UC
54 hours lecture
Characteristics, contributions, and problems of older persons. Emphasizes 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.

SOC 5 — Introduction to Criminology  3 Units  Degree Applicable, CSU, UC
54 hours lecture
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.

SOC 5H — Introduction to Criminology · Honors  3 Units  Degree Applicable, CSU, UC
54 hours lecture
Prerequisite: Acceptance into the Honors Program
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.

SOC 7 — Sociology of Religion  3 Units  Degree Applicable, CSU
54 hours lecture
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.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Degree Applicable</th>
<th>CSU, UC</th>
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<tbody>
<tr>
<td>SOC 14</td>
<td>Marriage and the Family</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Eligibility for ENGL 6B</td>
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<td>Explores the sociological and psychological functions of dating, engagement, weddings, marriage, and the family. Focuses on influences and theories of mate selection, love, and interpersonal attraction. Covers trends and changes in marriage and the family and gender roles. Explores different types of families and family patterns. Covers factors leading to divorce and influences on the divorce rate, remarriage rate, and step-families. Explores family life-cycle adjustments including parenting, mid-life, grandparenthood, and widowhood. Analyzes characteristics of &quot;successful&quot; marriages and families.</td>
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<td>SOC 15</td>
<td>Child Development</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Theoretical aspects of physical, social, emotional and cognitive development from conception through adulthood. Requires observation of children.</td>
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<td>SOC 20</td>
<td>Sociology of Ethnic Relations</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td>Provides insight to the culture diversity that exists in the United States. An extensive study of four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) is provided with emphasis placed on historical experiences, contemporary circumstances and future trends. Origins and theories of stereotypes, prejudices and discrimination are explored along with an analysis of racial stratification.</td>
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<tr>
<td>SOC 20H</td>
<td>Sociology of Ethnic Relations - Honors</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: Acceptance into the Honors Program</td>
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<td>Provides insight to the culture diversity that exists in the United States. An extensive study of four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) is provided with emphasis placed on historical experiences, contemporary circumstances and future trends. Origins and theories of stereotypes, prejudices and discrimination are explored along with an analysis of racial stratification. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 20 and SOC 20H.</td>
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<tr>
<td>SOC 36</td>
<td>Asian American Communities</td>
<td>3 Units</td>
<td>Degree Applicable</td>
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<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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<tr>
<td>SOC 99</td>
<td>Special Projects in Sociology</td>
<td>2 Units</td>
<td>Degree Applicable</td>
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<td>(May be taken four times for credit)</td>
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<td>36 hours lecture</td>
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<td>Offers students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.</td>
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<td>SPAN 1</td>
<td>Elementary Spanish</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<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>SPAN 2</td>
<td>Continuing Elementary Spanish</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: SPAN 1 or equivalent</td>
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<td>Further development of conversational, reading and writing skills in Spanish with special emphasis on verbs, grammar and expansion of vocabulary. Further study of Hispanic culture.</td>
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<td>SPAN 3</td>
<td>Intermediate Spanish</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: SPAN 2 or equivalent</td>
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<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>
<td>4 Units</td>
<td>Degree Applicable</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: SPAN 3 or equivalent</td>
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<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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<tr>
<td>SPAN 5</td>
<td>Advanced Spanish</td>
<td>4 Units</td>
<td>Degree Applicable</td>
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<td>Prerequisite: SPAN 4 or equivalent</td>
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<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 Units</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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<td>Prerequisite: SPAN 5 or equivalent</td>
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<td>Advanced reading, discussing and writing in Spanish designed to provide further cultural insights into the Hispanic world through the study of cultural and literary readings. High level of proficiency in Spanish will be emphasized.</td>
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<tr>
<td>SPAN 11</td>
<td>Spanish for the Spanish Speaking</td>
<td>4 Units</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: SPAN 11 or equivalent</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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<tr>
<td>SPAN 12</td>
<td>Continuing Spanish for the Spanish Speaking</td>
<td>4 Units</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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<td>72 hours lecture</td>
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<td>Prerequisite: 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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<tr>
<td>SPAN 25</td>
<td>Spanish Literature</td>
<td>3 Units</td>
<td>Degree Applicable</td>
<td>CSU, UC</td>
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<td>54 hours lecture</td>
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<td>Prerequisite: SPAN 4 or equivalent</td>
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<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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### Course Descriptions

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>SPAN 40</td>
<td>Intermediate Spanish for Health Professionals</td>
<td>4</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 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>
</tr>
<tr>
<td>SPAN 53</td>
<td>Conversational Spanish</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 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>
</tr>
<tr>
<td>SPAN 54</td>
<td>Continuing Conversational Spanish</td>
<td>3</td>
<td>Degree Applicable, CSU, UC (May be taken for option of letter grade or Pass/No Pass) 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>
</tr>
<tr>
<td>SPCH 1A</td>
<td>Public Speaking</td>
<td>4</td>
<td>Degree Applicable, CSU, UC 72 hours lecture. Prerequisite: SPAN 2 or equivalent 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.</td>
</tr>
<tr>
<td>SPCH 1AH</td>
<td>Public Speaking - Honors</td>
<td>4</td>
<td>Degree Applicable, CSU, UC 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.</td>
</tr>
<tr>
<td>SPCH 1B</td>
<td>Intermediate Public Speaking</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture. Prerequisite: SPCH 1A or SPCH 1AH Practice in extemporaneous speaking with stress on organization and delivery. Analyze, synthesize, criticize and advocate ideas, using inductive and deductive reasoning, distinguishing fact from opinion and avoiding fallacies of language and logic as critical thinkers both as alert members of an audience and as perceptive public speakers.</td>
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<tr>
<td>SPCH 2</td>
<td>Fundamentals of Communication</td>
<td>4</td>
<td>Degree Applicable, CSU 72 hours lecture. Corequisites: 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.</td>
</tr>
<tr>
<td>SPCH 3</td>
<td>Voice and Diction</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture. Corequisites: SPAN 2 or equivalent 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.</td>
</tr>
<tr>
<td>SPCH 4</td>
<td>Oral Interpretation of Literature</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture. Develops an appreciation of various genres of literature through textual analysis, oral reading, and evaluation. Practical training is given in critical reading, editing, and performance of poetry, prose, drama, essay and experimental forms of performance text.</td>
</tr>
<tr>
<td>SPCH 6</td>
<td>Small Group Communication</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture. Corequisite: SPCH 1A or SPCH 1AH (may have been taken previously) Principles of communication in a variety of small group contexts, including problem-solving, conflict management, decision making, and leadership.</td>
</tr>
<tr>
<td>SPCH 7</td>
<td>Intercultural Communication</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture. Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. Students may not receive credit for both SPCH 7 and SPCH 7H.</td>
</tr>
<tr>
<td>SPCH 7H</td>
<td>Intercultural Communication Honors</td>
<td>3</td>
<td>Degree Applicable, CSU, UC 54 hours lecture. Prerequisite: Admission into the Honors Program Theoretical dynamics of culture within communication contexts, and a practical exploration into improving intercultural communication competence for more effective interactions with others in a diverse society. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 7 and SPCH 7H.</td>
</tr>
<tr>
<td>SPCH 8</td>
<td>Professional and Organization Speaking</td>
<td>4</td>
<td>Degree Applicable, CSU 64 hours lecture. Corequisite: Acceptance into the Honors Program Speech communication principles as employed in organizations, including decision making, leadership, conflict resolution and communication networks as well as substantial skills development in preparing and delivering oral presentations within professional contexts and in the workplace. Oral presentations are required.</td>
</tr>
<tr>
<td>SPCH 8H</td>
<td>Professional and Organizational Speaking - Honors</td>
<td>4</td>
<td>Degree Applicable, CSU 64 hours lecture. Prerequisite: Acceptance into the Honors Program Speech communication principles as employed in organizations, including decision making, leadership, conflict resolution and communication networks as well as substantial skills development in preparing and delivering oral presentations within professional contexts and in the workplace. Oral presentations are required. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 8 and SPCH 8H.</td>
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<tr>
<td>SPCH 10</td>
<td>Speech Enhancement</td>
<td>1</td>
<td>Degree Applicable, CSU 18 hours lecture. Corequisite: SPCH 1A Provides hands-on research, outlining, and anxiety reduction activities designed to enhance student success as a linked course with the basic public speaking course.</td>
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### SPEECH

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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>SPCH 10</td>
<td>Speech Enhancement</td>
<td>1</td>
<td>Degree Applicable, CSU 18 hours lecture. Corequisite: SPCH 1A Provides hands-on research, outlining, and anxiety reduction activities designed to enhance student success as a linked course with the basic public speaking course.</td>
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<td>Course Code</td>
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<td>SPCH 15</td>
<td>Forensics: Contest Speech and Debate</td>
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<tr>
<td>SPCH 16</td>
<td>Forensics: Individual Team Event</td>
<td>2</td>
<td>Degree Applicable</td>
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<td>SPCH 17</td>
<td>Forensics: Debate Team</td>
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<td>SPCH 18</td>
<td>Forensics: Readers Theater Team</td>
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<td>SPCH 20</td>
<td>Argumentation and Debate</td>
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<td>SPCH 30</td>
<td>Gateway to Communication Studies</td>
<td>3</td>
<td>Degree Applicable</td>
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<td>SPCH 99</td>
<td>Special Projects in Speech</td>
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### STUDY TECHNIQUES

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<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>STDY 80</td>
<td>Studying and Learning: Foundations for Success</td>
<td>3</td>
<td>Not Degree Applicable</td>
<td>(May be taken option for letter grade or Pass/No Pass)</td>
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<td></td>
<td>54 hours lecture</td>
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<td>Advisory: Eligibility for ENGL 67 or READ 80</td>
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<td>Provides a foundation for life-long learning that promotes greater</td>
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<td>self-awareness and success. Academic success strategies include text</td>
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<td>management, time management, listening, note taking, oral and written</td>
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<td>communication, test-taking, memorization, use of campus resources,</td>
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<td>and research methods.</td>
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<tr>
<td>STDY 85A</td>
<td>Test-Taking and Stress Management</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<td>18 hours lecture</td>
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<td>Advisory: Eligibility for ENGL 67</td>
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<td>A single purpose course designed to support learning in either an</td>
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<td>academic field or in a vocation. Provides support in understanding</td>
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<td>the brain functions and applying that knowledge to test-taking and</td>
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<td>stress management strategies.</td>
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<tr>
<td>STDY 85B</td>
<td>Notetaking and Listening</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<td>Advisory: Eligibility for ENGL 67</td>
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<td>academic field or in a vocation. Provides awareness of how the brain</td>
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<td>functions and applications of that knowledge to notetaking and</td>
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<td>effective listening strategies.</td>
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</tbody>
</table>
Course Descriptions

STDY 85C — Study Techniques and Skills for Online Learning 1 Unit
Not Degree Applicable
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Focuses on skills for successful online learning and prepares students to take online classes and learn about effective online communication tools.

STDY 85D — Goal Setting and Time Management 1 Unit
Not Degree Applicable
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides support in understanding how the brain functions and applying that knowledge to goal setting and time management strategies.

STDY 85E — Memory and Concentration 1 Unit
Not Degree Applicable
18 hours lecture
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides support in understanding how the brain functions and applying that knowledge to memory and concentration strategies.

STDY 100 — Student Achievement and Fundamentals of Learning 3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: Eligibility for ENGL 68 or READ 100
Designed to increase student success in transfer college level courses. Provides a systematic approach to advanced study techniques for academic success in higher education. Develops the steps leading to successful transfer/transitoin to four-year institutions or careers.

SURVEYING

SURV 1A — Surveying 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: MATH 150
Surveying fundamentals; use and care of surveying instruments including steel tape, engineer’s level, theodolite and total station; horizontal and vertical measurements; layout, traverse, area computations; analysis and adjustments of systematic and random errors; stadia surveying; mapping.

SURV 1B — Surveying 3 Units
Degree Applicable, CSU, UC
(May be taken for option of letter grade or Pass/No Pass)
36 hours lecture
54 hours lab
Prerequisite: SURV 1A
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.

TECHNOLOGY-RELATED COURSES

TECH 60 — Customer Relations for the Technician 1 Unit
Degree Applicable
Advancement
36 hours lecture
(May be taken for Pass/No Pass only)
18 hours lecture
Customer relations (soft skills) for the technician including benefits of knowing and using effective customer contact tools, proper customer interactions, ethics, and maintaining customer satisfaction.

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
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 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
(May be taken for option of letter grade or Pass/No Pass)
54 hours lecture
Prerequisite: THTR 11
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of straight, stylized character, and other make-up techniques.

THTR 17 — Acting for Television 3 Units
Degree Applicable, CSU, UC
36 hours lecture
36 hours lab
54 hours lab
Prerequisite: THTR 11
Study in performance for TV and film. 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.
Playwriting for the stage. Students will create and critique their own structures. Productions. Includes basics of linear, episodic, 'A'-'B' and ritual plays, as well as study and critique plays from established authors and theater, dance, film, television, and reenactments. Students who repeat this course will improve skills through further instruction and practice.

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<tr>
<th>COURSE Code</th>
<th>COURSE Title</th>
<th>Units</th>
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<tr>
<td>THTR 18</td>
<td>Technical Theater Practicum</td>
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<td>Degree Applicable, CSU, UC</td>
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<td>(May be taken four times for credit)</td>
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<td>54 hours lab</td>
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<td>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, property construction, 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.</td>
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<td>THTR 62</td>
<td>Advanced Acting Scenework</td>
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<td>Degree Applicable, CSU</td>
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<td>(May be taken four times for credit)</td>
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<td>54 hours lab</td>
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<td>Advanced acting workshop that focuses on the development and refinement of two-person acting scenes.</td>
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<td>THTR 99</td>
<td>Special Projects in Theatre</td>
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<td>Degree Applicable, CSU</td>
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<td>(May be taken four times for credit)</td>
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<td>36 hours lecture</td>
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<td>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.</td>
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<td>TRAN 17</td>
<td>Air Transportation</td>
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<td>Degree Applicable</td>
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<td>54 hours lecture</td>
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<td>Advisory: AERO 23</td>
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<td>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.</td>
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<tr>
<td>TRAN 19</td>
<td>Air Law and Regulation</td>
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<td>Degree Applicable</td>
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<td>Develops a basic understanding of the legal environment surrounding aviation, the fundamentals of the U.S. legal system, and the impact of the U.S. constitution on aviation activities. Topics include criminal law for aviators and air carriers, tort liability and air commerce, government regulations, contract and commercial law in aviation related businesses, property law for aircraft owners and airport operators, labor and employment law in aviation industries, international law and treaties that affect aviation.</td>
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**TRANSPORTATION**

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<th>COURSE Code</th>
<th>COURSE Title</th>
<th>Units</th>
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<tr>
<td>TRAN 10</td>
<td>Introduction to Tutoring</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>Prerequisite: Eligibility for ENGL 1A</td>
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<td>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.</td>
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<td>TRAN 10C</td>
<td>Tutoring as a Supplemental Instructor</td>
<td>1</td>
<td>Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>Prerequisite: Eligibility for ENGL 1A</td>
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<td>Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.</td>
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<td>TRAN 10D</td>
<td>Tutoring in Mathematics</td>
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<td>Not Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>18 hours lecture</td>
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<td>Prerequisite: MATH 71 or higher</td>
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<td>Tutoring in mathematics with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.</td>
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<td>TRAN 10R</td>
<td>Tutoring in Reading</td>
<td>1</td>
<td>Not Degree Applicable</td>
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<td>(May be taken for option of letter grade or Pass/No Pass)</td>
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<td>18 hours lecture</td>
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<td>Advisory: Eligibility for READ 100</td>
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<td>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.</td>
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**Course Descriptions**

### WATER TECHNOLOGY

**WATR 60 — Introduction to Water Systems**
3 Units
Degree Applicable
54 hours lecture
Water sources, hydrological cycle, pre-treatment, water mathematics, basic water chemistry, treatment plant processes, safety, disinfection, corrosion, bacteriology and the public health aspects of potable water. Distribution systems, wells, valves and pumps. Prepares the student for Grade I and II State Water Treatment Operator Certification and Grade I AWWA Water Distribution Operator Certification.

**WATR 61 — Water Treatment**
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Prepares students for the Grade II and III State Water Treatment Operator Certification and Grade I AWWA Cross Connection Control Specialist Exam.

**WATR 62 — Water Distribution**
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Prepares students for the Grade II and III State Water Distribution Operator Certification.

**WATR 63 — Cross Connection Control - Certified Tester**
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior or concurrently
Emphasizes public health aspects of potable water supply, wells, process control procedures, chlorination systems, water softening, safety, review laboratory procedures, laboratory techniques and equipment, advanced water mathematics and State Health Department Title 22, Water Quality Standards. Prepares students for the Grade II and III State Water Treatment Operator Certification.

**WATR 64 — Cross Connection Control - Certified Specialist**
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Offers knowledge necessary to apply the principles of backflow prevention, as outlined in Title 17 of the California Administrative Code, to the administration of a cross-connection control program. Also teaches a student about the use of recycled water as outlined in Title 22 of the California Administrative Code. Prepares students who are otherwise qualified to take the AWWA Cross-Connection Specialist Certification Exam.

**WATR 65 — Water Hydraulics and Instrumentation**
3 Units
Degree Applicable
54 hours lecture
Advisory: WATR 60 taken prior
Practical water supply hydraulics and instrumentation, with emphasis on distribution system capacity, hydraulic analysis, pumping analysis, customer service lines and meters, automation, instrumentation and control, system maintenance and records.

### WELDING

**WELD 30 — Metal Sculpture**
2 Units
Degree Applicable, CSU
(May be taken for option of letter grade or Pass/No Pass)
18 hours lecture
54 hours lab
For students interested in art seeking the proper operation of welding processes related to the sculpting industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry.

**WELD 40 — Introduction to Welding**
2 Units
Degree Applicable, CSU
18 hours lecture
54 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 customer service lines and meters. Designed to refine previously acquired welding skills.

**WELD 50 — Oxyacetylene Welding**
2 Units
Degree Applicable
18 hours lecture
54 hours lab
Advisory: WELD 40, WELD 51, WELD 70A
Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.

**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 (AWS) procedure for certification.

**WELD 53A — Welding Metallurgy**
3 Units
Degree Applicable, CSU
54 hours lecture
Advisory: WELD 70A taken prior
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
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 70B — Intermediate Arc Welding**
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 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 — Fabrication and Construction 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 81 — Pipe and Tube Welding 3 Units
Degree Applicable
18 hours lecture
108 hours lab
Advisory: WELD 70B, WELD 70C
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 subcritical and critical piping and tubing.

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 surfaces and transitions.

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 credit)
(May be taken for Pass/No Pass only)
75 to 300 hours lab
Prerequisite: Compliance with work experience regulations as designated in the college catalog.
Advisory: 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.
SECTION ELEVEN

Continuing Education
Continuing Education (Adult Education) Courses

Noncredit courses are designed to meet the special needs and capabilities of those students who do not desire or need to obtain college unit credit. These courses provide developmental, occupational and other general education opportunities. Courses and programs are further defined categorically under the California Education Code, Section 84711, whereby state funding is authorized for nine specific categories as follows: Parenting, Basic Skills (including tutoring), English as a Second Language, Citizenship, Programs for the Handicapped, Vocational Courses, Programs for the Older Adult, Home Economics, Health and Safety and additional courses qualified for adult education curricula.

Student Services

Admissions and Registration
For Continuing Education (noncredit) and Community Services (fee-based) offerings, admission and registration is completed using a registration card. However, enrollment in ESL and/or Basic Skills courses requires assessment and orientation prior to registration (see explanations, following). Students may register for most courses at any time during the semester, on a space available basis. Noncredit and fee-based offerings are available to community members regardless of residency status.

Assessment
Basic Skills students are assessed prior to enrolling in courses. Additional assessments are available for specific needs. Basic Skills assessment services include testing for academic skill levels, learning strengths, career paths and learning disabilities. For more information, contact (909) 594-5611, ext. 4845.

ESL students must be assessed prior to enrollment. Placement testing is offered every Thursday, year-round. Multilingual assistance is available. For more information, contact (909) 594-5611, ext. 5235.

Orientation
Basic Skills and ESL students must attend an orientation session prior to registration. Orientation sessions are generally offered immediately after assessment.

Counseling and 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 Continuing Education Center. To schedule an individual appointment, students should call the Continuing Education Center, (909) 594-5611, ext. 4845.

The Basic Skills and ESL departments provide counselors and educational advisors to serve their students. Assistance to all noncredit students includes development of Educational and Career Plans, identification of personal, academic and career goals, career skill practice and resources, transitioning to credit programs, and assessment of special needs.

Fees and Expenses
There is no tuition for noncredit courses. However, some courses include a fee for materials provided to students. In addition, students who park on the Mt. San Antonio College campus must have a valid, current parking permit. Permits may be purchased in Building 40, room 104. Books and supplies needed for a course are the responsibility of the student unless specifically noted as provided by a material fee.

Credit/Noncredit Combined Courses
The Division offers many credit classes to Continuing Education students for noncredit. Students may enroll in these classes in accordance with procedures outlined in the Continuing Education class schedule. Students will not receive college credit. However, students enrolled in these classes who wish to receive a certificate of completion are expected to complete all assignments including tests, quizzes, projects and examinations. (A list of Noncredit Certificate Programs is provided beginning on page 215 of this catalog.)

Students wishing to complete a noncredit certificate program in one of the occupational areas of study must apply to the Continuing Education Division office, Building 40, room 104 to initiate the issuance of a certificate.

Basic Skills and Special Programs
The Basic Skills 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 Basic Skills and Special Programs, contact (909) 594-5611, ext 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) 594-5611, ext. 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
- DVDs, videos, audio recordings
- Pronunciation software
- Computer Aided Testing for Federal Aviation Administration and Chiropractic tests

For more information on the LLC, contact (909) 594-5611, ext. 4580.

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) 594-5611, ext. 4625.
Community Health Programs and CPR
The College offers courses such as First Aid, Heartsaver, AED and more.
- Records rosters and information updates per American Heart Association (AHA) requirements
- Provides videos, texts and manikins per AHA requirements
For more information, contact (909) 594-5611, ext. 4838.

Health Careers Resource Center (HCRC)
The Center provides the resources to increase student knowledge base, to learn new skills and to reinforce previously learned skills. Resources are provided to anyone involved or interested in health occupations. The HCRC provides a state-of-the-art learning 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.

The center is open to credit and noncredit health career students, community health care workers/professionals, individuals preparing for health related licensure or certification exams and any individual involved or interested in health related careers. Some of the campus programs/departments actively utilizing the center include:
- Technology and Health Division
- Medical Services – EMT, Paramedic, PA Prep
- Mental Health Technology
- Nursing
- Radiologic Technology
- Respiratory Therapy
- Community and Non-Credit Education Division
- Long-Term and Acute Certified Nursing Assistant (C.N.A.)
- RN Re-entry Into Practice
- IV Therapy, CPR
- Health Care Interpreting
- International Health Worker
- Physical Therapy Aide

Health Careers Resource Center Available Services
- RN assistance in clinical skills practice and performance evaluation
- Medical and hospital equipment/supplies/manikins/training aids for hands on demonstrations and application of basic, intermediate and advanced skills
- Health Skills Performance Update/ Evaluation
- Clinical simulations for Med-Surg, Psych, OB, Peds, Perioperative etc.

Self-Paced, Multisensory Learning Aides
- Expansive Technology Library on all health subjects
- Medical/Nursing resource books, journals
- ADAM programs for anatomy and physiology review
- Mock computer adaptive testing programs for NCLEX-RN and PN State Board Exam preparation
- Computer adaptive instruction for gaining or remediating math, pharmacology, dosage calculation skills or medication administration skills
- Internet access for searching full-text article databases and access lists of pre-evaluated web sites on all lab computers
- Computerized virtual clinical simulation programs
- Medical terminology and bilingual media for International learners

Older Adult Program*
Courses designed for older adults (age 55+ years) provide the full continuum of education from vocational classes to the pursuit of long-standing educational goals. Classes are offered in the arts, personal growth, physical and mental fitness and vocational areas, and are conducted both on campus and at various senior and community centers and residential facilities throughout the Mt. San Antonio College District.

Mountie Volunteer Program (MVP)
The MVP Program coordinates and provides volunteer opportunities on campus while providing training and support services for MVP participants. Partnering with the Retired Senior Volunteer Program (RSVP) of the greater Pomona Valley, the program provides for the recruiting and screening of potential volunteers.

Generations Program
The Generations Program provides educational activities which foster intergenerational relationships that link generations for the good of society, such as student athletes providing volunteer hours for the Older Adult Program.
For more information on Older Adult Programs, please call (909) 594-5611, ext. 4192.

Other Continuing Services and Programs
- Fee-based programs related to career development and personal enrichment for community members
- College 4 Kids and Youth Programs
- CPR and First Aid
- Vehicle Safety Programs (Motorcycle, Traffic School, Driver’s Training)
- Farm Tours
- Wildlife Sanctuary Tours
- Planetarium Shows
- Study Skills Laboratory for Disabled Students Programs and Services
- San Gabriel Valley Training Center (serving developmentally disabled adults)
For more information regarding Continuing Education Services and Programs, contact (909) 594-5611, ext. 4220.

*Note: Although courses are designed for the older adult, anyone 18 years of age and older may enroll.
## NONCREDIT LIST OF CERTIFICATES

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Continuing Education

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
SYS #102892

The Basic Skills Certificate of Competency provides courses and training in skills that will improve opportunities for students to obtain employment, advance in their careers or prepare for future advanced academic studies. Students will increase basic skills, i.e., reading, writing, math and computer skills, and progress in this sequence based on individual needs. Courses are offered days and evenings to accommodate work and personal schedules. For more information, please call (909) 594-5611, ext. 4845.

Certificate Requirements:
Course ID Course Title
BS ABE01 Career Information and Guidance
BS ABE02 Adult Basic Education
BS ABE03 Adult Basic Education – Leadership Development
BS ABE04 Guidance and Orientation to Special Programs
BS ABE05 Career Development
BS ABE06 Basic Skills Foundation
BS ABE07 Re-Entry Work Skills Needed for Today’s Workforce
BS CNSL5 Career/Life Planning

English as a Second Language
SYS #748025

ESL students are placed within the following sequence of courses according to their English abilities. Students progress through this sequence based on individual need before transferring into credit courses or employment. Supplemental courses in speaking, writing and vocational language will assist their progress through the sequence and may be taken along with level classes as needed. Courses are offered all year long, including winter and summer intersessions. Classes are offered days, evenings and weekends. For more information, please call (909) 594-5611, ext. 5235.

Certificate Requirements:
Course ID Course Title
ESL PLVI1 ESL – Pre-Level 1
ESL LV1L1 ESL – Level 1
ESL LV1L2 ESL – Level 2
ESL LV1L3 ESL – Level 3
ESL LV1L4 ESL – Level 4
ESL LV1L5 ESL – Level 5
ESL LV1L6 ESL – Level 6
ESL SPK A ESL – Speaking A
ESL SPK B ESL – Speaking B
ESL SPK C ESL – Speaking C

Career Development
SYS #244852

Career development provides students with information and guidance on college opportunities, careers and life planning. Students can apply skills gained to their current employment and personal lives and will improve their opportunities to advance in their careers or transition into a new career. This sequence of courses is offered days and evenings to accommodate adults with alternating schedules. For more information, please call (909) 594-5611, ext. 4845.

Certificate Requirements:
Course ID Course Title
BS ABE01 Career Information and Guidance
BS ABE02 Adult Basic Education
BS ABE03 Adult Basic Education – Leadership Development
BS ABE04 Guidance and Orientation to Special Programs
BS ABE05 Career Development
BS ABE06 Basic Skills Foundation
BS ABE07 Re-Entry Work Skills Needed for Today’s Workforce
BS CNSL5 Career/Life Planning

Secondary Education
SYS #259121

The High School Program provides all courses needed to satisfy requirements for a high school diploma. Students earning a high school diploma increase future employment and educational opportunities, including college and training programs. Completion of these courses will provide the student with a high school diploma. For more information, please call (909) 594-5611, ext. 4845.

Certificate Requirements:
Course ID Course Title
BSHS ACL1 High School Algebra 1
BSHS ACL2 High School Algebra 2
BSHS ART1 High School Art and Creative Expression
BSHS ART2 High School Art 2
BSHS BIO High School Biology
BSHS CHEM High School Chemistry
BSHS CHEM 1 High School Chinese 1
BSHS CW High School Civics/American Government
BSHS CPTC High School Computer Technology
BSHS DIAP High School Diploma and Referral
BSHS ECON High School Economics
BSHS EELA High School CAHSEE Prep – English Language Arts
BSHS EEM High School CAHSEE Prep – Mathematics
BSHS ENG1 High School English 1
BSHS ENG2 High School English 2
BSHS ENG3 High School English 3
BSHS ENG4 High School English 4
BSHS GEOG High School Geography
BSHS GEOG 1 High School Geography
BSHS GRAP High School Advanced Graphics/Printing
BSHS HLTH High School Health
BSHS JOUR High School Journalism
BSHS KEY High School Typing/Keyboarding
BSHS LSC High School Life Science

Language Arts

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. Classes taken are noncredit, and do not generate college units toward a degree. The Continuing Education Division also offers fee-based Certificate Programs. These include:

• Accounting/Bookkeeping
• CPR and First Aid
• Medical Insurance Billing Specialist
• Phlebotomy Technician
• RN Re-Entry into Practice
Specific certificate content and more information can be found in the Community Services Schedule of Classes each semester or contact (909) 594-5611, ext. 4220.

How to Finish an Occupational Certificate
In order for students to receive a Certificate of Completion, the student must do the following:

- Register and pay material fees if required for desired classes
- Attend a minimum of 75% of required class hours
- Satisfactorily complete course work, papers and projects, take and pass mid-terms and final with the equivalent of a "C" grade
- When all courses are completed, apply to the Continuing Education Office

Attendance and signatures will be verified by the Continuing Education Division staff. If all requirements are met, a Certificate of Completion will be prepared and delivered to the student.

Getting Help
For more information regarding occupational training certificates, please call the Division office at (909) 594-5611, ext. 4220.

Educational Advisers are available to assist students with Career and Education Planning. During the first week of registration, they are available in the registration area, 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) 594-5611, ext. 4845 to schedule an appointment.

ACCOUNTING

Accounting – Computerized
SYS #962408

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 reporting and account analysis.

Certificate Requirements:
Completion of Accounting – Bookkeeping Certificate (234 hours)

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<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA73</td>
<td>Using Microcomputers in Financial Accounting</td>
</tr>
<tr>
<td>VOC BA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
</tr>
<tr>
<td>VOC CS15</td>
<td>Microcomputer Applications</td>
</tr>
<tr>
<td>VOC CP11</td>
<td>Internet Research for Business</td>
</tr>
<tr>
<td>VOC CS31</td>
<td>Microsoft Word</td>
</tr>
</tbody>
</table>

Accounting – Payroll
SYS #597867

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

Certificate Requirements:
Completion of Accounting – Bookkeeping Certificate (234 hours)

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BA70</td>
<td>Payroll and Tax Accounting</td>
</tr>
<tr>
<td>VOC BA75</td>
<td>Using Microcomputers in Financial Accounting</td>
</tr>
<tr>
<td>VOC BA76</td>
<td>Using Microcomputers in Managerial Accounting</td>
</tr>
</tbody>
</table>

OCCUPATIONAL – AGRICULTURAL SCIENCE

Floral Design
SYS #132282

This course is designed to give students basic skills in floral design beyond entry-level positions, i.e., first-line supervision and/or management and Floral Designers.

Certificate Requirements:
Course ID | Course Title                  |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR25</td>
<td>Floral Design – 1</td>
</tr>
<tr>
<td>VOC AGR26</td>
<td>Floral Design – 2</td>
</tr>
<tr>
<td>VOC AGR27</td>
<td>Floral Design – 3</td>
</tr>
</tbody>
</table>

Horset ranch Management
SYS #391289

This sequence of courses is designed to enable students to prepare for a career in horse ranch management. Courses provide students hands-on experience designed to give them a combination of practical skills and technical knowledge.

Certificate Requirements:
Course ID | Course Title                  |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGR16</td>
<td>Horse Production, or</td>
</tr>
<tr>
<td>VOC AGR18</td>
<td>Horse Ranch Management</td>
</tr>
<tr>
<td>VOC AGR19</td>
<td>Horse Hoof Care</td>
</tr>
<tr>
<td>VOC AGR96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>VOC AGR97</td>
<td>Artificial Insemination of Livestock</td>
</tr>
</tbody>
</table>

Landscape and Park Maintenance
SYS #621629

This certificate is designed to give students basic skills in park landscape maintenance. Courses are offered annually, and prepare the student with skills that are appropriate for the maintenance of grounds, property or parks.

Certificate Requirements:
Course ID | Course Title                  |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR40</td>
<td>Sports Turf Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
</tbody>
</table>

Landscaping and Construction
SYS #19610

This certificate is designed to give students basic skills needed in employment with a landscape contractor. Employment potential is very good.

Certificate Requirements:
Course ID | Course Title                  |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR13</td>
<td>Landscape Design</td>
</tr>
<tr>
<td>VOC AGR29</td>
<td>Ornamental Plants – Herbaceous</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR71</td>
<td>Landscape Construction Fundamentals</td>
</tr>
<tr>
<td>VOC AGR72</td>
<td>Landscape Hardscape Applications</td>
</tr>
</tbody>
</table>
## Continuing Education

### Landscape Equipment Technology
**SYS #875616**

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>

### Landscape Irrigation
**SYS #327645**

This certificate is designed to give students basic skills in irrigation design, repair installation, water management and troubleshooting. Courses are offered Fall and Spring semesters. 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 AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
<tr>
<td>VOC AGR75</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>

### Livestock Management
**SYS #335958**

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 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>

### Nursery Management
**SYS #703868**

This certificate is designed to give students basic skills in production and marketing of plants and dry goods in the wholesale and retail nursery industry. The sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC 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 AGR32</td>
<td>Landscaping and Nursery Management</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>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation System Management</td>
</tr>
</tbody>
</table>

### Park Management
**SYS #314920**

This certificate is designed to enable students to prepare for a career in park management, and provides students with hands-on experience, designed to give them a combination of practical skills and technical knowledge.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR04</td>
<td>Park Management</td>
</tr>
<tr>
<td>VOC AGR05</td>
<td>Park Facilities</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</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>

### Pet Science
**SYS #425556**

This certificate is designed to enable students to enter the retail or wholesale pet industry. Most of the courses in this certificate are offered every Fall and Spring semester. Five of the courses are offered in the evening only and are rotated over four semesters.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Animal Science</td>
</tr>
<tr>
<td>VOC AGR02</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Animal Handling and Restraint</td>
</tr>
<tr>
<td>VOC AGR94</td>
<td>Animal Breeding</td>
</tr>
<tr>
<td>VOC AGL96</td>
<td>Animal Sanitation and Disease Control</td>
</tr>
<tr>
<td>VOC AGP70</td>
<td>Pet Shop Management</td>
</tr>
<tr>
<td>VOC AGP71</td>
<td>Canine Management</td>
</tr>
<tr>
<td>VOC AGP72</td>
<td>Feline Management</td>
</tr>
<tr>
<td>VOC AGP73</td>
<td>Tropical and Coldwater Fish Management</td>
</tr>
<tr>
<td>VOC AGP74</td>
<td>Reptile Management</td>
</tr>
<tr>
<td>VOC AGP76</td>
<td>Aviculture – Cage and Aviary Birds</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
</tbody>
</table>

### Sports Turf Management
**SYS #332420**

This certificate is designed to provide skills required for students interested in employment at golf courses, race tracks, athletic fields and stadiums, and other high-use turf areas. The sequence is offered on an annual basis.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
</tr>
<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR39</td>
<td>Turf Grass Production and Management</td>
</tr>
<tr>
<td>VOC AGR40</td>
<td>Sports Turf Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR62</td>
<td>Landscape Irrigation – Design and Installation</td>
</tr>
<tr>
<td>VOC AGR63</td>
<td>Landscape Irrigation Systems Management</td>
</tr>
</tbody>
</table>

### Tree Care and Maintenance
**SYS #182769**

This certificate is designed to give students basic skills in the repair and maintenance of trees.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC AGR01</td>
<td>Horticultural Science</td>
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<tr>
<td>VOC AGR24</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>VOC AGR30</td>
<td>Ornamental Plants – Trees and Woody Shrubs</td>
</tr>
<tr>
<td>VOC AGR32</td>
<td>Landscape and Nursery Management</td>
</tr>
<tr>
<td>VOC AGR50</td>
<td>Soil Science and Management</td>
</tr>
<tr>
<td>VOC AGR51</td>
<td>Tractor and Landscape Equipment Operations</td>
</tr>
<tr>
<td>VOC AGR53</td>
<td>Small Engine Repair</td>
</tr>
<tr>
<td>VOC AGR75</td>
<td>Urban Arboriculture</td>
</tr>
</tbody>
</table>
Business Management – Level 1
SYS #18545
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 BM62 Human Resource Management
VOC BS56 Principles of Marketing

Business Management – Level 2
SYS #245391
The Business Management – Level 2 Certificate builds upon the Level 1 certificate to provide students with proven business tools that will enhance their management careers. Students will be exposed to projects and business simulations that will lead to measurable success. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.
Certificate Requirements:
Completion of:
Business Management – Level 1
PLUS the following:
Course ID Course Title
VOC BM20 Principles of Business
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management
VOC BM66 Small Business Management

Human Resource Management
SYS #152977
This introductory certificate exposes students to the business world and the role of human resources. Students become familiar with various approaches to business organization and the strategic nature of human resources. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.
Certificate Requirements:
Completion of:
Business Management – Level 2
PLUS the following:
Course ID Course Title
VOC BM20 Principles of Business
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management

International Business – Level 1
SYS #65499
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
SYS #745751
In the International Business – Level 2 Certificate, the student will learn methods and approaches to managing the complexities of doing business in an international environment. Students acquire both theoretical knowledge and practical skills related to managing and marketing within the global arena. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management.
Certificate Requirements:
Completion of:
International Business Level 1
PLUS the following:
Course ID Course Title
VOC BM20 Principles of Business
VOC BM61 Business Organization and Management
VOC BM66 Small Business Management
VOC BS36 Principles of Marketing

Retail Management – Level 1
SYS #601197
Introductory certificate exposes students to the business world and the role of retail distribution. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management, and Small Business Management.
Certificate Requirements:
Course ID Course Title
VOC BM25 Business Communications
VOC BS15 Microcomputer Applications
VOC BS50 Retail Store Management and Merchandising
VOC BS56 Principles of Accounting

Retail Management – Level 2
SYS #527217
Intermediate certificate builds upon the Level 1 Certificate to expose students to the various functions of managers in retail positions. The Department has sequenced courses to maximize student time, and there are five emphasis areas: Business Management, Human Resource Management, International Business, Retail Management, and Small Business Management.
Certificate Requirements:
Completion of:
Retail Management – Level 1
PLUS the following:
Course ID Course Title
VOC BM25 Business Communications
VOC BM61 Business Organization and Management
VOC BM62 Human Resource Management
VOC BS36 Principles of Accounting
### Small Business Management – Level 1
SYS #563137

Small business has been described as the engine of change within the economy. The Small Business Management – Level 1 Certificate exposes the student to the fundamentals of managing and planning a small business. The Department has sequenced courses to maximize student time, and there are four emphasis areas: Business Management, Human Resource Management, International Business or Small Business Management. Courses are offered on an annual basis, and each level of Small Business Management emphasis can be completed in one semester.

**Certificate Requirements:**
- Completion of:
  - Retail Management – Level 1
  - Retail Management – Level 2
  - PLUS the following:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC BM20</td>
<td>Principles of Business</td>
</tr>
<tr>
<td>VOC BM66</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>VOC BS36</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>VOC BM60</td>
<td>Human Relations in Business</td>
</tr>
<tr>
<td>VOC BM61</td>
<td>Business Organization and Management</td>
</tr>
<tr>
<td>VOC BM62</td>
<td>Human Resource Management</td>
</tr>
</tbody>
</table>

### Computer Systems Technology – Level 1
SYS #258925

The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry. This includes microprocessor programming concepts and microprocessor interfacing circuits.

**Certificate Requirements:**
- Course ID    | Course Title                        |
- VOC EL11    | Technical Applications in Microprocessors |
- VOC EL12    | Computer Simulation and Troubleshooting |
- VOC EL50A   | Electronic Circuits (DC)              |
- VOC EL50B   | Electronic Circuits (AC)               |
- VOC EL51    | Electronic Devices                    |
- VOC EL56    | Digital Electronics                   |
- VOC EL61    | Electronics Assembly and Fabrication  |
- VOC EL74    | Microprocessor Systems                |

### Electronic Systems Technology – Level 1
SYS #174983

This Level 1 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:

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC EST56</td>
<td>Home Theater and Home Automation Systems</td>
</tr>
<tr>
<td>VOC EST62</td>
<td>Electronic Troubleshooting – 1</td>
</tr>
<tr>
<td>VOC TCH60</td>
<td>Customer Relations for the Technician</td>
</tr>
<tr>
<td>VOC EST64</td>
<td>Electronic Troubleshooting – 2</td>
</tr>
<tr>
<td>VOC EST70</td>
<td>C-7 Low Voltage Systems License Preparation</td>
</tr>
<tr>
<td>VOC EL61</td>
<td>Electronics Assembly and Fabrication</td>
</tr>
<tr>
<td>VOC EL62</td>
<td>Advanced Surface Mount Assembly and Rework</td>
</tr>
</tbody>
</table>
Electronic Technology
SYS #670897
This one-year certificate is designed for the person requiring background in the basic core courses of electronic technology without an area of specialization. The core courses provide the necessary skills for entry-level employment as an electronic technician, by written information regarding term offering and correct course selection.

Certificate Requirements:
Course ID Course Title
VOC EL11 Technical Applications in Microcomputers
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronic Devices
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC TCH60 Customer Relations for the Technician

Electronics and Computer – Engineering Technology
SYS #103989
Students completing this certificate will have training in most areas of electronics including: microprocessors and interfacing, electronic communications and industrial electronic controls. Jobs include, but are not limited to:
• Electrical and Electronic 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 EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EL76 Radio Telephone Communications

Industrial Electronics
SYS #612116
This certificate includes electronic devices for industrial controls and motor controls; including programmable logic controls using the Allen Bradley series of PLC’s running Windows ladder logic software.

Certificate Requirements:
Course ID Course Title Hours
VOC EL11 Technical Applications in Microcomputers
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 EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC EL76 Radio Telephone Communications

Recommended Electives:
VOC EBT11 Technical Engineering Drawing 1
VOC EL62 Advanced Surface Mount Assembly and Rework

Electronics Communications
SYS #742582
This certificate encompasses advanced coursework in electronics communications including both land-based and wireless forms of communication.

Certificate Requirements:
Course ID Course Title
VOC EL11 Technical Applications in Microcomputers
VOC EL12 Computer Simulation and Troubleshooting
VOC EL50A Electronic Circuits (DC)
VOC EL50B Electronic Circuits (AC)
VOC EL51 Electronic Devices
VOC EL53 Communications Circuits
VOC EL55 Microwave Communications
VOC EL56 Digital Electronics
VOC EL61 Electronics Assembly and Fabrication
VOC TCH60 Customer Relations for the Technician

OCCUPATIONAL – HEALTH CAREERS

Certified Nursing and Acute Care Nursing Assistant
SYS #195661
This certificate program will prepare participants to work in both long-term and acute care facilities thus providing entry level, diverse, work opportunities in the ever growing health care field. For those planning on entering UNR 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 presenting of the state application and administration of the NATAP test with same day official test results for the written and manual skills examination. Verification of successful passing of the NATAP test permits immediate eligibility for employment.

All coursework can be completed within 11 weeks. Offered in Fall or Spring semesters.

Participants must:
• provide their own transportation and be at least 16 years of age or have a work permit
• be able to meet expenses and responsibilities incurred as part of this program.
• demonstrate proficient English/ESL verbal and written communication skills to take written exams, communicate with clients and maintain a safe clinical environment.

Certificate Requirements:
Course ID Course Title
VOC HTH01 Certified Nursing Assistant
VOC HTH04 Acute Care Nursing Assistant
VOC HTH05 Health Careers Resource Center

Certified Nurse Assistant (CNA)
Course Completion Only VOC HTH 01
VOC HTH 01 is offered for “course completion only” during the Winter and Summer Intersessions. This course provides for employment in long term care only. For further information, please contact the Health Careers Resource Center, (909) 594-5611, ext. 4788.

VOC HTH13 Interpreting in Health Care Setting 1
VOC HTH14 Interpreting in Health Care Setting 2
VOC HTH05 Health Careers Resource Center (4 hours/week coaching sessions and 3hrs/wk arranged in HRC, Fall and Spring semesters)
VOC HTH15 Externship in Health Care Interpreting
VOC HTH20 Health Care Interpreter Seminar

Health Care Interpreting
SYS #425877
Health care providers receiving Federal funds are required to provide interpreters for patients who speak a language other than English at home, if speakers of that language represent a significant portion of the population in the area. Therefore, the need for trained interpreters is growing rapidly. Many health care providers are choosing to upgrade the skills of their current employers through certificate programs such as ours.

The Health Care Interpreting Certificate is an 11 month program, designed to train bilingual and bicultural students to develop the awareness, knowlege and skills for effective language interpretation in health care settings. Through academic preparation, practical skills training, and service in Continuing-based health care settings and educational organizations, HCI candidates will learn:
• Roles and responsibilities of an interpreter in health care settings.
• Basic knowledge of common medical conditions, treatments, and procedures.
• Language and cultural nuances for specific healthcare consumers and providers.
• Application of interpreting skills in English and Spanish or Mandarin.

The program begins each Fall semester and includes coursework, independent lab study, and a 6-week unpaid internship within a local healthcare facility. Certification is awarded after completion of the internship. Classes are arranged for the working student, and are scheduled evenings and Saturdays.

A cohort of students is admitted each fall semester and completes the certificate at the end of the following Summer Intersession.

Certificate Requirements: (Successful completion of all courses listed below)
Course ID Course Title
ESL YNTH English for Health Professionals (if determined necessary after evaluation of spoken and written English skills)
VOC HTH12 Medical Terminology
VOC ANA50 Basic Anatomy and Physiology
VOC HTH13 Interpreting in Health Care Setting 1
VOC HTH14 Interpreting in Health Care Setting 2
VOC HTH05 Health Careers Resource Center (4 hours/week coaching sessions and 3hrs/wk arranged in HRC, Fall and Spring semesters)
VOC HTH15 Externship in Health Care Interpreting
VOC HTH20 Health Care Interpreter Seminar

For further information, please contact the Health Careers Resource Center, (909) 594-5611, ext. 4788.
Continuing Education

Basic Requirements:
Applicants should have advanced academic proficiency in English, both spoken and written, and should be equally proficient in the language of service (Spanish or Mandarin).

To enroll in this program, you must attend an information meeting and complete the language assessment process. Registration will be offered on a first-come, first-served basis for eligible candidates attending the meeting.

For further information and mailed announcements of meeting dates, call VESL Registration at (909) 594-5611, ext. 5236.

Manufacturing Technology
SYS #219907
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:
Course ID Course Title
VOC MF11 Manufacturing Processes I
VOC MF12 Manufacturing Processes 2
VOC MF15 AutoCAD 2-D
VOC MF17 3-D CAD – Mechanical Modeling
VOC MF19 Parametric Solid Modeling for Manufacturing
VOC MF38 MasterCAM I
VOC MF38B Advanced MasterCAM
VOC MF39 SurfCAM I
VOC MF39B SurfCAM II
VOC MF58 Blueprint Reading for Manufacturing
VOC MF70 Technical Mathematics – Manufacturing Applications
VOC MF85 Manual CNC (Computerized Numerical Control) Operations
PLUS – Select 2 courses from the following:
VOC MF25 Advanced Parametric Solid Modeling for Manufacturing
VOC MF27 AutoDesk Inventor
VOC WL40 Introduction to Welding

Parametric Solid Modeling
SYS #649508
With the strong relationship between AutoCAD and manufacturing, this mini certificate guides the student through AutoDesk’s 2-D and 3-D and other software packages used in the manufacturing industry.

Certificate Requirements:
Course ID Course Title
VOC MF15 AutoCAD 2D
VOC MF17 3-D CAD – Mechanical Modeling
VOC MF19 Parametric Solid Modeling for Manufacturing
VOC MF25 Advanced Mechanical Desktop
VOC MF27 AutoDesk Inventor

SurfCAM
SYS #255843
This certificate is a direct employment pathway for manufacturing students who wish to write, edit, download and run Computerized Numerical Control (CNC) machines, and provides a strong background in the basics of both manual and CNC machines. The sequence is highly specialized occupation.

Certificate Requirements:
Course ID Course Title
VOC MF11 Manufacturing Processes I
VOC MF39 SurfCAM I
VOC MF39B SurfCAM II
VOC MF85 Manual CNC (Computerized Numerical Control) Operations

OCCUPATIONAL – OFFICE TECHNOLOGY

Administrative Assistant – Level I
SYS #736281
Prepares students for entry-level clerical positions where keyboarding is the primary function.

Certificate Requirements:
Course ID Course Title
VOC B005 Business English
VOC CS11 Computer Keyboarding OR
VOC CS11A Computer Keyboarding AND
VOC CS18 Computer Keyboarding
VOC CP12 Office Computer Applications OR
VOC CSB15 Microcomputer Applications
VOC CS41 Office Management Skills

Administrative Assistant – Level 2
SYS #316457
This certificate prepares students for clerical positions where office organization and transcription skills are needed.

Certificate Requirements:
Completion of:
Administrative Assistant – Level I
PLUS the following:
Course ID Course Title
VOC B005 Business English
VOC CS15 Intermediate Computer Keyboarding
VOC CSB31 Word for the Business Professional or
VOC CS41 Transcription Techniques

Data Entry
SYS #234664
This certificate is intended to prepare students for employment as data entry operators, customer service representatives, receptionists, or entry-level office support staff positions. Training in a variety of computer skills is emphasized.

Certificate Requirements:
Course ID Course Title
VOC CS15 Intermediate Computer Keyboarding
VOC CP12 Office Computer Applications
VOC CSB15 Microcomputer Applications
VOC CS21 Data Entry

Medical Office Specialist
SYS #137648
The courses in this certificate are intended to prepare students for employment as entry-level medical office assistants, medical receptionists, administrative assistants – medical, medical office managers or other office support staff in the medical field.

Certificate Requirements:
Course ID Course Title
VOC BA72 Bookkeeping – Accounting
VOC B005 Business English
VOC B025 Business Communications
VOC CS11 Computer Keyboarding
VOC CS15 Intermediate Computer Keyboarding
VOC CP12 Office Computer Applications OR
VOC CSB15 Microcomputer Applications
VOC CS21 Data Entry
VOC CSB31 Microsoft Word
VOC CS41 Office Management Skills
VOC CS45 Transcription Techniques
VOC HTH12 Medical Terminology

Office Computer Applications
SYS # 534470
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
### OCCUPATIONAL – PHOTOGRAPHICS

#### Computer Graphics Design / Photography

**SYS #235908**

This certificate will enable the student to develop specific computer skills needed for employment. The Computer Graphics Certificate is an option under the Photography program. Employment will vary among several industries such as computer gaming, movie production, music video production, commercials and animation.

**Certificate Requirements:**

<table>
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<tr>
<th>Course ID</th>
<th>Course Title</th>
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<tr>
<td>VOC GRP1</td>
<td>Computer Graphics Lab</td>
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<tr>
<td>VOC GRP10</td>
<td>Photo Editing with Photoshop</td>
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<tr>
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<tr>
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<td>Digital Image Design</td>
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<tr>
<td>VOC GRP28</td>
<td>Digital Portfolio</td>
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<tr>
<td>VOC PHO10</td>
<td>Basic Digital and Film Photography</td>
</tr>
<tr>
<td>VOC PHO17</td>
<td>Photocommunication</td>
</tr>
</tbody>
</table>

**Recommended Electives:**

The Photographics faculty recommends that you supplement your studies with selected elective courses listed below. You should meet with a professor of Computer Graphics/Photography to help you determine which electives would best suit your career plans.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
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<tr>
<td>VOC GRP12</td>
<td>Operating the Macintosh Computer</td>
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<tr>
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<tr>
<td>VOC PHO02</td>
<td>Laboratory Studies: Color Photography</td>
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<tr>
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</tr>
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### OCCUPATIONAL – SPECIAL NEEDS POPULATION

#### Job Readiness Skills

**SYS #798265**

(San Gabriel Valley Training Center)

This Certificate provides hands-on job training in computer and assembly skills for the entry-level worker. Participants will improve their opportunities for employment and career advancement.

**Certificate Requirements:**

<table>
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<tr>
<th>Course ID</th>
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</tr>
<tr>
<td>VOC MFAR</td>
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### OCCUPATIONAL – WELDING TECHNOLOGIES

#### Welding

**SYS #340189**

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

**Certificate Requirements:**

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<tr>
<th>Course ID</th>
<th>Course Title</th>
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<td>VOC WL50</td>
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<td>VOC WL51</td>
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<td>Welding Metallurgy</td>
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<tr>
<td>VOC WL60</td>
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<td>VOC WL70B</td>
<td>Intermediate Arc Welding</td>
</tr>
<tr>
<td>VOC WL80</td>
<td>Fabrication and Construction Welding</td>
</tr>
<tr>
<td>VOC WL81</td>
<td>Pipe and Tube Welding</td>
</tr>
</tbody>
</table>

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**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.

- VOC MF70 Technical Mathematics – Manufacturing Applications
- VOC WL60 Print Reading and Computations for Welders
- VOC WL70C Certification for Welders

---

### Licensed Welder

**SYS #919193**

This Certificate provides hands-on job training in computer and assembly skills for the entry-level worker. Participants will improve their opportunities for employment and career advancement.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course ID</th>
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<td>VOC WL81</td>
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### Welder with Concentration in Automotive Welding, Cutting & Modification
**SYS #483743**
Preparation as a Licensed Welder with additional skills and theoretical development in automotive welding, cutting and modification.

**Certificate Requirements:**
Completion of:
Licensed Welder Certificate

PLUS the following:

<table>
<thead>
<tr>
<th>Course ID</th>
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<tbody>
<tr>
<td>VOC WL91</td>
<td>Automotive Welding, Cutting and Modification</td>
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### Welder with Concentration in Gas Tungsten ARC Welding
**SYS #108929**
Preparation as a Licensed Welder with additional skills and theoretical development in gas tungsten ARC Welding.

**Certificate Requirements:**
Completion of:
Licensed Welder Certificate

PLUS the following:

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### Welder with Concentration in Semiautomatic ARC Welding
**SYS #460640**
Preparation as a Licensed Welder with additional skills and theoretical development in Semiautomatic ARC Welding.

**Certificate Requirements:**
Completion of:
Licensed Welder Certificate

PLUS the following:

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<td>VOC WL90B</td>
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BSH S AD RW — 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.

BSH S ALG 1 — 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, and rational and irrational numbers, quadratic functions and
problem solving.

BSH S ALG 2 — 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.

BSH S ART 1 — 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.

BSH S ART 2 — High School - Art 2
Artistic perception, creative expression, and aesthetic value 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.

BSH S 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.

BSH S 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.

BSH S 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.

BSH S 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.

BSH S CPTC — High School Computer Technology
Includes proper technique and operations using a computer,
troduction 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.

BSH S 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.

BSH S EELA — CAHSEE Prep: English Language Arts
CAHSEE English Language Arts, semesters A/B, is designed to stress the
fundamentals of the high school English language arts standards.
Genres and their characteristics: word analysis, reading comprehension,
literary response and analysis, writing strategies, writing conventions
and writing applications.

BSH S EMA — CAHSEE Math Prep
CAHSEE Math, semesters A/B, is designed to stress the fundamentals of
the high school math standards. Number sense, statistics, data analysis
probability, algebra, functions, measurement, geometry, algebra I and
mathematical reasoning.

BSH S ENG1 — High School - English 1
Introduces high school students to the foundations of literature using
gende and theme experiences. Includes exploration of folk tradition,
poetry, fiction, nonfiction and informational and visual media. Vocabulary
development, writing strategies and applications, reading comprehension,
listening and speaking strategies, language conventions, listening and
speaking applications, literary response and analysis.
CONTINUING EDUCATION

BSHS ENG2 — High School English 2
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 informational reading, comprehension, listening and speaking strategies, language convention, listening and speaking applications, critical and analytical writing, study and communication skills.

BSHS ENG3 — High School English 3
Foundations of literature through American English literature using a historical approach for high school students. Includes classic literature genres and techniques, and time-based approaches to literature. Pre-colonial America, the American Revolution, the New England Renaissance, Slavery and the Civil War, the Frontier Era, the Modern Era, the Harlem Renaissance and Modern Drama.

BSHS ENG4 — High School English 4
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.

BSHS GEOG — High School Geography
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.

BSHS GEOM — High School Geometry
Foundations of geometry applications for high school students. Points, lines, planes, angles, constructions, reasoning skills and proofs, perpendicular and parallel lines, congruent triangles, quadrilaterals, proportion and similarity, right triangles and trigonometry, circles, polygons, area, volume, coordinate geometry, loci and coordinate transformations.

BSHS GRAP — High School Advanced Graphics/Printing
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.

BSHS HLTH — High School Health Education
Increases high school students’ awareness of health issues, includes behavior change vs. 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.

BSHS JOUR — High School Journalism
Prepares high school students to work on school newspapers. Includes writing clear, concise and interesting articles, development of grammar, spelling, punctuation, style, sentence and paragraph form, interviewing techniques, news writing skills and analysis ability to critique newspapers and periodicals.

BSHS KEY — High School Typing/Keyboarding
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.

BSHS LSCI — High School Life Science
Fundamental characteristics of living things, simple organisms, plants, animals, human biology, physiology, genetics, heredity, adaptation, evolution and ecology for high school students.

BSHS MATH2 — High School General Math
Basic mathematical foundations needed for daily life and higher level math courses for high school students. Includes concepts, methods and applications of basic math skills. Topics include whole numbers, fractions, decimals, measurement, basic geometry, basic strategies, ratios, percentages, beginning pre-algebra and precalculus for algebra, various consumer-related topics and problem-solving.

BSHS MUSC — High School Music Appreciation
Historical, cultural and genre-based aesthetic valuation of music for high school students. Vocabulary, interaction of words and music, influence of religion, theatre, government and culture on musical style.

BSHS NS1 — High School Natural Science 1
Integration of biological, physical and earth science. Introduces high school students to scientific measurement and computation. Introduces scientific laboratory equipment, and basic scientific writing. Addresses overall skill sets in the areas of reading, writing and note-taking as it relates to science.

BSHS NS2 — High School Natural Science 2
Integration of advanced biology, physical and earth science. Introduces high school students to advanced scientific measurement and computation, the use of scientific laboratory equipment and basic scientific writing. Addresses overall skill sets in the areas of reading, writing and note-taking as it relates to science.

BSHS PHIL — High School Philosophy
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.

BSHS PHYS — High School Physical Science
Prepares high school students to work on school newspapers. Includes writing clear, concise and interesting articles, development of grammar, spelling, punctuation, style, sentence and paragraph form, interviewing techniques, news writing skills and analysis ability to critique newspapers and periodicals.

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 SPECH — High School Speech and Communication
Designed to help high school students transition from arithmetic to algebra. Includes concepts, methods and applications of pre-algebra. Topics include operations with integers, expressions, equations, inequalities, percents, proportions, graphs, computational skills and problem-solving skills.

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 basic Spanish for high school students. Geography, customs and culture of Spanish-speaking countries.
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<td>BSHS SS —</td>
<td>High School - Single Survival &quot;On Your Own</td>
<td>This course increases student knowledge and ability in skills necessary for everyday living. High school students determine goals and values, education choices, career opportunities, money management, health care and personal needs.</td>
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<td>BSHS SSK —</td>
<td>High School - Study Skills</td>
<td>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.</td>
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<td>BSHS STG —</td>
<td>High School Stagecrafts</td>
<td>Aspects for high school productions and creation of theatrical support services. Set design, set painting, construction, lighting and sound design and operations. Costume and make-up application, theater services. Set design, set painting, construction, lighting and sound design and operations.</td>
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Continuing Education

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 dialectical problems.

DSPS LRND2 — High Tech Center Tutorial/Assistance Class
Advisory Prerequisite: Students must be referred by a counselor in Disabled Student Programs and Services (DSPS) 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)
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 dialectical problems.

ESL LV1A — ESL - Level 1
Beginning to low English students build vocabulary, grammar and communication skills.

ESL LV1B — 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 LV1C — 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 LV2 — 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 LV3 — 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 LV6 — 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 lifelong 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 writing skills.

ESL SPKA — ESL - Speaking A
Beginning level students develop English listening comprehension and speaking fluency. Activities include talking in small groups or with partners, listening and responding to simple conversations, short presentations and pronunciation practice.

ESL SPKB — ESL - Speaking B
Intermediate level students improve English oral proficiency in areas of pronunciation, listening comprehension and speaking skills. Through group discussions and short presentations, students practice speaking with clarity and fluency, present their ideas and opinions, and make cultural comparisons.

ESL SPKC — ESL - Speaking C
Advanced level students expand English listening comprehension 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 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.

HEALTH AND SAFETY

HLSF PEWT — Physical Fitness and Conditioning - Weight Training
An over-all fitness and physical conditioning program using weight machines, free weights and Olympic lifting exercises. This course is intended for the beginner to advance exerciser. Improved results will be achieved through active participation for students who repeat the course.

HLSF PEWRS — Physical Fitness and Conditioning – Wrestling
Wrestling to develop overall fitness and conditioning. Appropriate for beginning and advanced practitioners. Improved results will be achieved through active participation.

HLSF PFBT — Physical Fitness and Conditioning – Football
An increased level of physical conditioning will be attained through systematic and progressive exercises. These exercises include stretching, controlled running, muscular strength and power through weights, speed and agility developed through drills.

HLSF PFWP — Physical Conditioning - Water Polo
Water Polo training to improve overall fitness and conditioning. Water polo drills and dry land exercises will be used to improve participant’s strength, agility and aerobic condition.

OLDER ADULTS

OAD AT14 — Introduction to Art Fundamentals
An entry level course designed for non-art majors emphasizing creative expression through the visual arts. Painting, drawing, printmaking, and sculpture are explored to introduce the student through various media to the arts.

OAD AT15B — Drawing: Beginning
Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionist styles.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAD AT20</td>
<td>Intro Exhibition Design and Professional Practice</td>
<td>Provides knowledge and hands-on skills in exhibition design and installation to display an aesthetically effective art exhibition. Students will be familiarized with the necessary practical knowledge used by an emerging artist, historical and contemporary terms, examination of culture and universal symbology and application, issues, theories, movements and media in the context of art exhibition productions.</td>
</tr>
<tr>
<td>OAD AT25A</td>
<td>Painting</td>
<td>Emphasizes creative self-expression through the painting media. Students will develop the ability to conceptualize and solve compositional and technical painting problems.</td>
</tr>
<tr>
<td>OAD AT30A</td>
<td>Ceramics</td>
<td>An exploration of ceramic techniques and creative expression. Includes vocabulary, theory, elements and principles of ceramic form through projects and critique.</td>
</tr>
<tr>
<td>OAD AT40A</td>
<td>Sculpture - Beginning</td>
<td>An overview of traditional and contemporary approaches to sculpture. Emphasizes principles of sculptural design and concept development. Includes exploration of technique and materials as an integral part of creative expression.</td>
</tr>
<tr>
<td>OAD AT41A</td>
<td>Sculpture - Life</td>
<td>Modeling from the human figure with emphasis on composition, gesture, motion and human anatomy as it informs sculptural form. Development of perceptual and technical skills in clay modeling from the human figure.</td>
</tr>
<tr>
<td>OAD AT41B</td>
<td>Sculpture - Life</td>
<td>Sculptural study of human figure with emphasis on composition and human anatomy. Advanced projects using materials and techniques suitable for the human form. Students who repeat this course will further develop perceptual skills in clay modeling from the human figure.</td>
</tr>
<tr>
<td>OAD AT42</td>
<td>Sculpture: Mold Making</td>
<td>Construction and use of flexible and plaster molds. Students who repeat this course will improve skills by further instruction and practice.</td>
</tr>
<tr>
<td>OAD AT43</td>
<td>Introduction to Printmaking</td>
<td>Introduction to creative techniques in fine art printmaking using relief and intaglio projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context, cultural traditions and craftsmanship through projects, discussion and oral/written criticism.</td>
</tr>
<tr>
<td>OAD AT44</td>
<td>Printmaking - Relief and Lithography</td>
<td>Creative techniques in fine art printmaking focusing on lithography. The possibilities of combination of planographic with relief methods will be explored. Emphasis is on developing skills, vocabulary and critical understanding and analysis of its aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.</td>
</tr>
<tr>
<td>OAD AT45</td>
<td>Printmaking - Collagraph/Monotype/Silkscreen</td>
<td>Creative techniques in fine art printmaking using collagraphs, monotypes, monoprints and stencil projects. Emphasis is on developing skills, vocabulary and critical understanding and analysis of mixed media printmaking’s aesthetics, historical context and craftsmanship through projects, discussion and oral/written criticism.</td>
</tr>
<tr>
<td>OAD AT46</td>
<td>Sculpture: Special Effects Makeup</td>
<td>Advisory Prerequisite: OAD AT 41A and/or OAD AT 42. Modeling, molding, casting and application of special effects make-up appliances and masks to the human anatomy as it informs sculptural form and specialized molding and casting techniques and materials.</td>
</tr>
<tr>
<td>OAD AT47</td>
<td>Lifelong Learning for Older Adults - Physical Fitness</td>
<td>Maintain and/or improve overall physical fitness through a variety of conditioning exercises specifically designed for the older adult.</td>
</tr>
<tr>
<td>OAD AT48</td>
<td>Lifelong Learning for Older Adults - Crafts</td>
<td>Develops creative and artistic skills through visual and fine motor coordination utilizing various arts and crafts materials. Students will learn skills to make crafts while sharing individual artistic expertise with peers.</td>
</tr>
<tr>
<td>OAD AT49</td>
<td>Lifelong Learning for Older Adults</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT50</td>
<td>Lifelong Learning Through Current World Events</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT51</td>
<td>Creative Writing – Fiction</td>
<td>Elements, processes and techniques of fiction writing. Includes genre, settings, point of view, character sketch, plot development, description and dialogue with an emphasis on student development as a writer of fiction through practice and discussion.</td>
</tr>
<tr>
<td>OAD AT52</td>
<td>Creative Writing – Poetry</td>
<td>Examines the student's development as a poet.</td>
</tr>
<tr>
<td>OAD AT53</td>
<td>China Painting</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT54</td>
<td>Oil Painting</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT55</td>
<td>Watercolor Painting</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT56</td>
<td>Creative Writing (Writing Your Autobiography)</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT57</td>
<td>Drawing - Beginning Through Advanced</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT58</td>
<td>Quilting</td>
<td>Learn patchwork, appliqué, and various ways to form quilting patterns and gain working knowledge of hand or machine quilting. Information on materials, equipment, planning, design and general methods in creating a quilt will be covered. Students will receive a supply list at the first class meeting.</td>
</tr>
<tr>
<td>OAD AT59</td>
<td>Healthy Cooking for Older Adults</td>
<td>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.</td>
</tr>
<tr>
<td>OAD AT60</td>
<td>Health Aging</td>
<td>Healthy aging, including diet, nutrition, disease prevention, and application of physical fitness principles to maintain health while aging.</td>
</tr>
<tr>
<td>OAD AT61</td>
<td>Health Aging – Principles of Tai Chi</td>
<td>Health aging, including diet, nutrition, disease prevention, and application of Tai Chi principles to maintain health while aging.</td>
</tr>
<tr>
<td>OAD AT62</td>
<td>Health Aging – Principles of Yoga</td>
<td>Health aging, including diet, nutrition, disease prevention, and application of Yoga principles to maintaining health while aging.</td>
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</tbody>
</table>
Continuing Education

OAD MX06 — 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 MX07 — Mobility Through Exercise - Physical Fitness Using Music to Enhance Skill Development
Enables students to increase balance, coordination, strength, flexibility and memory function through a progressive fitness program using music to enhance skill development.

OAD MX09 — Mobility Through Exercise - Strength Training Using Resistance Bands
Resistance training for isolation of targeted muscle groups to increase strength, range of motion, flexibility, and increase bone density using toner bands. Designed to challenge all major muscles. Students are encouraged to participate at their own level. In addition, slow stretching and breathing techniques will be taught.

OAD 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 MUSC5 — Creative Expression through Music
Promotes creative expression through music and includes discussion, singing, listening and interaction for older adults. Concentration will be on various musical styles and historical periods in which music plays specific roles.

OAD MS01 — Concert Music
Lectures, demonstrations, recitals and media presentations by faculty, guest artists and students. Course content will differ each time it is offered. Attendance at live concerts may be required.

OAD MS19 — Elementary Organ
Group and individual instruction in registration, pedal technique, and interpretation of standard organ literature will be given in this course.

OAD MS25A — Jazz - Improvisation (Instrumental Or Voice)
Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Students who repeat this course will improve skills through further instruction and practice.

OAD MS25B — Jazz Improvisation
Styles and techniques of improvisation. Each student must furnish his own instrument and be able to perform individually and with the class.

OAD MS30 — Collegiate Chorale
A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills.

OAD MS32 — Masterworks Chorale
This SATB choir will perform major choral works ranging from the Baroque era to the 20th century. Although there is no audition required for this group, prior choral experience is preferred. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory.

OAD MS36 — Concert Band
The group will study and perform standard and new band literature. Experience will be given to capable student directors, soloists, arrangers, and composers. Attendance is required at all public performances.

OAD MS38 — Ensemble
The study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice.

OAD MS39 — Laboratory Band
Study and performance of jazz and popular music of all types. Provides the necessary training and experience for MUS 47, Jazz Band, or for the improvement of skills necessary for employment in the field. Students who repeat this course will improve skills through further instruction and practice.

OAD MS47 — Jazz Band
Lectures, demonstrations, recordings, rehearsals, and performance will cover all types of popular music and jazz. Preference will be given to performers playing more than one instrument.

OAD MS50 — 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.

OAD MS52 — Masterworks Chorale
This SATB choir will perform major choral works ranging from the Baroque era to the 20th century. Although there is no audition required for this group, prior choral experience is preferred. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory.

OAD MS53 — Concert Band
The group will study and perform standard and new band literature. Experience will be given to capable student directors, soloists, arrangers, and composers. Attendance is required at all public performances.

OAD MS54 — Jazz Band
Lectures, demonstrations, recordings, rehearsals, and performance will cover all types of popular music and jazz. Preference will be given to performers playing more than one instrument.

OAD MS57 — Instrumental Music for the Classroom
Although there is no audition required for this group, prior choral experience is preferred. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory.

OAD MS58 — Ensemble
The study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice.

OAD MS62 — Beginning Decorative Art Production
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.

OAD MS63 — Intermediate Decorative Art Production
Use of acrylic paints and associated mediums including painting on a variety of surfaces. The use of tone 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.

OAD MS65 — 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.
PARENT EDUCATION
PAED CHLD1 — Parent Participation Pre-School
Children's developmental stages and parenting skills through participation in discussions and classroom activities. Parents attend with their children, ages 2-5. Children participate in structured activities in preparation for future educational experiences.

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 segment 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 ADJ07 — Concepts of Traffic Services
A study of traffic management, collision reconstruction, collision factors including law violations and retribution, factors such as evidence, collision evidence, traffic enforcement techniques and specialization in traffic management. Emphasis is placed on service to the motoring public.

VOC ADJ08 — 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 ADJ09 — Narcotics Investigation
Investigation techniques for drug enforcement. Drug effects, use of informants, amendment issues and handling of evidence.

VOC ADJ10 — 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 ADJ11 — Administration of Justice Report Writing
Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.

VOC ADJ12 — Code and Case Law
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 AGL01 — 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.

VOC AGL02 — Animal Science
Fundamental problems and essential concepts of animal production. Includes the study of the types of domestic animals and their utilization by humans.

VOC AGL03 — Animal Nutrition
Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

VOC AGL04 — Animal Handling and Restraint
This course will cover the methods of properly handling large and small animals and will include chemical and physical techniques of restraint.

VOC AGL05 — Animal Breeding
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.

VOC AGL06 — 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 AGL07 — Animal Sanitation and Disease Control
Prevention and control of infectious diseases affecting domestic animals, including basic disease concepts, transmutations of infectious diseases, principles of sanitation and fundamentals of immunology.

VOC AGL08 — Animal Breeding
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.

VOC AGL09 — Swine Production
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.

VOC AGL10 — Horse Breeding
Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes actual experience in the care of horse and tack.

VOC AGL11 — Sheep Production
A study of the various types of sheep enterprises and the ways and means of entering them. Includes class, laboratory and project work concerning all phases of sheep management, sheep handling, feeding, shearing, lambing and marketing. Practical skills taught on the school farm and sheep farms in the area.

VOC AGL12 — Horse Ranch Management
Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm layout, estrous cycles, breeding problems and stallion care.

VOC AGL13 — Horse Hoof Care
Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

VOC AGL14 — Horse Behavior and Training
Breaking and starting young horses. Concentrates on halter training of foals, ground work on yearlings, and green-breaking two-year-olds and up. Includes lunging techniques, driving, and breaking to a saddle. Training in collection, turning, backing, leads, and trailer loading.

VOC AGL15 — Beef Production
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 AGL16 — Livestock Judging and Selection
Study of form and appearance of farm animals as related to their function. Includes judging of breeding and terminal livestock as well as carcass evaluation.

VOC AGL17 — Horse Production
Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes actual experience in the care of horse and tack.

VOC AGR-G — 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.
CONTINUING EDUCATION

VOC AGR01 — Horticultural Science
The basic horticulture skills and techniques for use in gardening, nursery, and landscapes. 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, tree- and ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern sporing and division. Stress greenhouse 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 composition. Designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages are included in the laboratory setting.

VOC AGR26 — Floral Design 2
Continued application of principles in the art of floral design. Contemporary design theory emphasizing creativity, self-expression and professional design situations.

VOC AGR27 — Floral Design 3
Advanced application of principles in the art of holiday designs, party and wedding designs, and sympathy designs. Florist management operations will be emphasized.

VOC AGR28 — 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 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.

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 turf surfaces used 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 AGR51 — 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 AGR53 — Small Engine Repair 1
Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engine, 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 and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.

VOC AGR63 — Landscape Irrigation Systems Management
A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble-shooting procedures including field testing of valves and controllers. Irrigation efficiency testing will be incorporated to demonstrate proper methods of water audits and 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.
OCCUPATIONAL — ARCHITECTURAL TECHNOLOGY

VOC ARCT — Architectural Drafting
Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.

VOC ARCE — 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 ARCD — 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 ARCE2 — 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 ARCD2 — Architectural CAD 3-D Illustration and Animation
Intermediate to advanced Architectural CAD drawings. Portfolio of working drawing and presentation applications of integrated 2-D and 3-D CAD models with photo-realistic materials and lighting will be produced. Students who repeat this course will improve skills through further instruction and practice.

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 BA68 — 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 the 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
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.

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 BM 10 Provides comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Students completing the course will be qualified to participate as members of Continuous Quality Improvement teams, create and evaluate problem situations applying tools for improvement planning and team decision making, and build an effective improvement plan.

VOC BM12 — Continuous Quality Improvement Team Building
Advisory Prerequisite: VOC BM 10 Provides comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Students completing the course will be qualified to participate as members of Continuous Quality Improvement teams, create and evaluate problem situations applying tools for improvement planning and team decision making, and build an effective improvement plan.
### Continuing Education

**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 interpersonal and intrapersonal 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 BM85 — 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.

**VOC BO25 — 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 BO26 — 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 BO96 — Spelling and Vocabulary for Success**  
Advisory Prerequisite: VOC BO05  
Learn to spell and define troublesome words. Improve basic spelling and vocabulary used by business and industry. Includes proper use of dictionary; word division; adding suffixes and prefixes; synonyms; computer-related vocabulary; and business vocabulary.  
Note: VOC BO 96A and VOC BO 96B are equivalent to VOC BO 96.

**VOC BS36 — Principles of Marketing**  
Organization and function of the system of distributing goods and services from the point of production to the consumer. Preparation of a marketing plan using product, distribution, promotional and pricing strategies.

**VOC BS50 — Retail Store Management and Merchandising**  
Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service.

**VOC BS57 — 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 BS85 — Special Issues in Marketing**  
Provides marketing majors with a forum to gain knowledge, develop techniques, problem solve and implement an actual business marketing plan. Special emphasis will be placed on the particular project of the actual business used as the class project.

### 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 – 30 gross words a minute with a predetermined error limit.  
(Formerly VOC CP01A)

**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.  
(Formerly 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.  
(Formerly 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.  
(Formerly 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. (Formerly 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. (Formerly 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. (Formerly 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. (Formerly 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. (Formerly VOC CP60)

### 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-B2C Basic Computing Level 2 Designed to increase word processing skills through creative projects which introduce computer graphics. Students will further their understanding of professional computer care and maintenance.

### VOC CPCC — Creative Computing
Develops creative skills in utilizing graphic designs for projects such as business cards, letterhead, labels, flyers, posters, greeting cards and computer-generated fabric designs. Proper marketing skills will also be discussed.

### VOC CPLC — 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 CP01A — Computer Keyboarding
Develops basic alpha/numeric keyboarding with skills on a personal computer; develops a straight-copy rate of 25 to 30 gross words a minute with a predetermined error limit.

### VOC CP10 — Operating the Macintosh Computer
Basic skills and in-depth practice operating the Apple Macintosh computer. Includes introduction to the operating system, paint, draw, word-processing, database, spreadsheet, and multi-media applications.

### VOC CP12 — Office Computer Applications
Overview of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.

### VOC CP13 — Using Page Web Software
Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.

### VOC CP18 — Data Entry
Data entry using a microcomputer. Includes intensive skill building on the ten-key pad and development of keyboarding skills for entering formatted and non-formatted text, both alphabetic and numeric, in a variety of business applications.

### VOC CP19 — Data Entry
Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.

### VOC CP20 — Word for Office / Business Professionals
Extensive hands-on instruction using Microsoft Word and its language, editing and formatting tools to create, revise and format various business and report documents. Also create complex publication documents using advanced formatting techniques and tools.

### VOC CP21 — Office Computer Applications
Overview of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.

### VOC CP22 — Word for Office / Business Professionals
Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.

### VOC CP23 — Basic Computing Level 3
Prerequisite: VOC CP-B2C Basic Computing Level 2 Designed to increase word processing skills through creative projects which introduce computer graphics. Students will further their understanding of professional computer care and maintenance.

### VOC CPCC — Creative Computing
Develops creative skills in utilizing graphic designs for projects such as business cards, letterhead, labels, flyers, posters, greeting cards and computer-generated fabric designs. Proper marketing skills will also be discussed.

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### VOC CP01A — Computer Keyboarding
Develops basic alpha/numeric keyboarding with skills on a personal computer; develops a straight-copy rate of 25 to 30 gross words a minute with a predetermined error limit.

### VOC CP10 — Operating the Macintosh Computer
Basic skills and in-depth practice operating the Apple Macintosh computer. Includes introduction to the operating system, paint, draw, word-processing, database, spreadsheet, and multi-media applications.

### VOC CP11 — Internet Research for Business
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (file transfer protocol) and mailing lists.

### VOC CP12 — Office Computer Applications
Overview of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.

### VOC CP13 — Using Page Web Software
Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.

### VOC CP18 — Data Entry
Data entry using a microcomputer. Includes intensive skill building on the ten-key pad and development of keyboarding skills for entering formatted and non-formatted text, both alphabetic and numeric, in a variety of business applications.

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### VOC CP10 — Operating the Macintosh Computer
Basic skills and in-depth practice operating the Apple Macintosh computer. Includes introduction to the operating system, paint, draw, word-processing, database, spreadsheet, and multi-media applications.

### VOC CP11 — Internet Research for Business
Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (file transfer protocol) and mailing lists.
Continuing Education

VOC CP63 — Adobe Illustrator for Desktop Publishers
Using Adobe Illustrator on a microcomputer to design and produce graphic images that can be used independently or incorporated into a page layout or presentation program.

VOC CP64 — Desktop Publishing Seminar
Produce publishing products emphasizing creative design and effective production. Practical experience through working with clients and working in teams.

VOC CP65 — Modifying Images for Desktop Publishing
Using Adobe Photoshop on a microcomputer as applied from the office perspective. Students will learn to modify images that can be used independently or incorporated into a page layout or presentation program.

VOC CP68 — Transcription Techniques
Develops the language competencies and formatting knowledge required to produce acceptable business documents; emphasizes punctuation, number usage, proofreading, spelling and word division; and reinforces through a series of sentence applications, paragraphs and business documents.

VOC CP150 — Basic PowerPoint
Overview and basic instruction using one of the most popular presentation software packages. Recommended for all students who need to know how to create presentations. Not recommended for Office Technology majors.

OCCUPATIONAL — COMPUTER TECHNOLOGY

VOC CNT50 — PC Servicing
PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software diagnostics, and the use of test equipment.

VOC CNT52 — 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 CNT54 — 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 CNT56 — Home Theater, Home Integration and Home Security Systems
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 the student for the California State Contractors C-7 voltage systems license.

VOC CNT60 — 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 CNT62 — 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.

OCCUPATIONAL — CORRECTIONAL SCIENCE

VOC CRS10 — Introduction to Correctional Science
Overview of the field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as a member of the Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.

VOC CRS15 — Control and Supervision of the Offender
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 CRS20 — Correctional Law
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 CRS25 — 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 CRS30 — Ethnic Relations in Corrections
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 CRS35 — Criminal Justice System
Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.

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 CRS50 — Probation and Parole
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 CRS55 — Control and Supervision of the Offender
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 CRS60 — 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 CRS62 — 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.

OCCUPATIONAL — ELECTRONICS

VOC EL10 — Introduction to Mechatronics
An introduction to the field of mechatronics, a combination of conventional electronics 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 their 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 diagnosis will be done with the emphasis on "Electronics Workbench/Multisim" software. Students who repeat this course will improve their skills through further instruction and practice.

VOC EL50A — Electronics Theory
Corequisite: VOC EL50AL
DC circuit theory covering resistive circuits, basic components; Ohm’s Law, Kirchoff’s Law, and network theorems. (Students seeking a survey course in electronics could take ELEC 90, Survey of Electronics, rather than ELEC 50A or 50B.)

VOC EL50B — Electronics Theory
Corequisite: VOC EL50BL
AC circuit theory covering inductors, capacitors, impedance, filters, decibels, and resonance. Analysis involves the use of complex numbers. Stresses passive components.

VOC EL51 — Electronic Devices Theory
Solid-state devices and circuits, including BJT and FET transistors, rectifier diodes, op-amps, voltage regulators, oscillators, and timers. Emphasizes configurations, classes, load lines, characteristics curves, gain, troubleshooting, and frequency response.

VOC EL52 — Communications Circuits Theory
Analog and digital communication circuits’ theory. Emphasizes analog and digital modulation principles in AM, FM, SS, PLL, FDM, TDM, moderns, fiber optics, and telecommunications circuits.

VOC EL54A — Industrial Circuits Theory
Industrial electronic components and basic control circuits. Includes time delay control, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UJT devices.

VOC EL54B — Industrial Electronic Systems
Expands on circuit theory and demonstrates systems application of industrial electronics including robotics, industrial production, automation, programmable and motor controllers. Emphasis is on programmable logic controllers.
VOC EL55 — Microwave Communications - Lecture
Microwave components, circuit theory, and their applications with emphasis on satellite technology. Stresses Gunn diode oscillators, transmission lines, waveguides, Smith Charts, components, amplification, frequency analysis, and measurement techniques.

VOC EL56 — Digital Electronics - Lecture
Combining 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 rectangle).

VOC TC600 — 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 EST50 — Electrical Fundamentals for Cable Installations
Electrical fundamentals for cable and wire installations and other low voltage systems. Includes DC/AC, shielded wires, digital and microprocessor devices and their application to cable installations. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST52 — Fabrication Techniques for Cable Installation
Fabrication techniques used in the installation of home theater, computer networks, home automation, and other low voltage systems. Emphasis on hand and power tools, construction methods and materials as they apply to cable and wire installations.

VOC EST54 — Cabling and Wiring Standards
Cable and wire standards of video, voice and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage systems. Emphasis on copper wire, coax, fiber optic, and structured cables. Prepares students for the California State Contractors C-7 low voltage systems license.

VOC EST56 — Home Electronic Systems
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.

VOC EST62 — Electronic Troubleshooting - 1
Troubleshooting basic electronic circuits and systems to component level. Circuits include: power supplies, amplifiers, audio circuits, home theater audio (Dolby 5.1) and video circuits (analog TV).

VOC EST64 — Electronic Troubleshooting - 2
Troubleshooting advanced electronic video circuits and systems to component level. Includes digital TV and HDTV (plasma, LCD, DLP).

VOC EST70 — C-7 Low Voltage Systems License Preparation
Prepares students for the California State Contractors C-7 Low Voltage Systems license examination.

VOC EDT11 — Technical Engineering - Drawing 1
Basic skills for a solid foundation in the Engineering Drawing or Computer-Aided Design fields. Includes application, basic sketch, theories and design processes used in engineering and industrial drawings. Completion of a portfolio is a requirement of this course.

VOC EDT12 — 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.
### Continuing Education

**VOC FSH12 — Clothing Construction 2**
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.

**VOC FSH15 — Fashion Strategies**
An investigative overview of sociological, psychological, cultural and fashion industry influences on clothing selection. The elements and principles of design and their impact on dress will be explored.

**VOC FSH17 — Textiles**
Examines the manufacturing of textiles/fabrics and factors that determine the suitability for end use. Topics covered include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation and care. Emphasis is placed on selection criteria for textile product design and recent developments in the textile field.

**VOC FSH20 — Illustration for Fashion and Costume Design**
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.

**VOC FSH21 — Patternmaking 1**
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.

**VOC FSH22 — Fashion Design By Draping**
Three-dimensional dress design through draping fabrics directly to a dress form to create original designs or to interpret fashion illustrations.

**VOC FSH23 — Patternmaking 2**
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.

**VOC FSH24 — Fashion Patternmaking by Computer**
Applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drafting techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns.

**VOC FSH25 — Fashion Computer-Assisted Drawing**
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. Concentration on Adobe Illustrator and Adobe Photoshop.

**VOC FSH30 — Fashion Design and Product Development 1**
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-bounds, and evaluate the aesthetic and commercial results.

**VOC FSH31 — Fashion Design and Product Development 2**
Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swimwear, 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.

**VOC FSH32 — Fashion Design and Product Development 3**
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.

**VOC FSH33 — 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 FSH34 — Retail Store Management and Merchandising 1**
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-bounds, and evaluate the aesthetic and commercial results.

**VOC FSH35 — Retail Store Management and Merchandising 2**
Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swimwear, 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.

**VOC FSH36 — Interior Design**
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 emergencies 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 participants to work in a skilled nursing facility and pass California Long-Term Care exam. Prerequisite:
- 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 HLTH 05

**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. Prerequisite:
- 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**
Prerequisite:
- Valid identification (CA driver’s license or CA ID card) and Social Security Card
- Completed Technology and Health Division Student Medical History and Physical exam form within the last 3 months

**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 HLTH13 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.
experience requirements, personal qualifications, job responsibilities, job when working with consumers and delivering direct care.

Basic principles of sanitation and safety in the food service industry.

Social and economic influences on the current leisure industry.

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 RDTEC — Intervenous 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 HTTH18 — 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 HTTH20 — 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 interpreter’s field experience.

VOC RDTEC — Intervenous Therapy for Radiologic Technology

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VOC HRM53 — Dining Room Service Management

Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed.

VOC HRM54 — Commercial Food Preparation

Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; choosing the proper food grade; evaluation of food products and equipment usage.

VOC HRM56 — Management of Hospitality Personnel and Operations

Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Application of basic management concepts and techniques necessary to achieve objectives in the management of operations and human resources in restaurant and hospitality businesses including analysis of hospitality workplace: the manager's responsibilities in training, coaching and performance appraisal of employees; decision making, leadership and planning.

VOC HRM57 — Restaurant Cost Control

Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.

VOC HRM58 — Fast Food Service Management

Basic principles of managing a fast food operation. Comparison with conventional restaurants in pricing, labor needs and facilities. Developing and marketing a positive company image. Practical and legal aspects of franchising versus single ownership. Sanitation and cost controls.

VOC HRM60 — Purchasing for the Restaurant Industry

Basic principles of purchasing for the food service industry. Ordering, receiving, storage, characteristics of products and grade selection for different situations are emphasized. Choosing the best supplier, negotiating the best terms and writing product specifications are covered.

VOC HRM61 — Menu Planning

Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.

VOC HRM62 — Catering

Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to combine menu with price. Contracting outside vendors, problem solving and avoiding common problems before they occur.

VOC HRM64 — Hospitality Financial Accounting

Introduction to financial accounting specifically for the hospitality business. Emphasis is on tailoring the Uniform System of Accounting to hotels, restaurants, clubs and other food service operations.

VOC HRM66 — Hospitality Law

Basic principles of contracts, liability and labor as they apply specifically to the hospitality industry. Students will discuss previous cases and decide the fates of fictional litigations as a preventive approach to problems that can occur.

VOC HRM70 — Introduction to Lodging

Introduction to the basics of the lodging industry. Acquaints students with front office operations, accounting, guest service, housekeeping and food service. Includes human resource management and property management. Enrollment in Work Experience in Restaurant/Food Service (RSTR 91, 92, 93 or 94) is needed for articulation to California Polytechnic State University.

OCCUPATIONAL — MANUFACTURING TECHNOLOGY

VOC MF10 — Mathematics & Blueprint Reading for Manufacturing Applications 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.

VOC MF11 — Manufacturing Processes 1

Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines. Students who repeat this course will improve skills through further instruction and practice.

VOC MF12 — Manufacturing Processes 2

The study of manufacturing equipment and manufacturing processes. Theory and practice in milling operations, tooling setup, metallogy, heat treatment, precision grinding, and basic tool design.

VOC MF15 — AutoCAD 2D

Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DXF and/or IGES files and then transferred to various CAD/CAM systems.
CONTINUING EDUCATION

VOC MF17 — 3-D CAD for Mechanical Modeling
Advisory Prerequisite: VOC CIM 15 or equivalent industrial experience.
Development of three-dimensional mechanical models using AutoCAD.
Includes interaction with Computer Aided Machines (CAM) and
Computer Integrated Manufacturing (CIM). Analysis and manipulation of
mechanical solid models and industrial primitives as related to their
interactions with CAM and CIM systems.

VOC MF19 — Parametric Solid Modeling for Manufacturing
Development of feature-based solid modeling on a computer using
current industry software. Transfer of solid model to a CAM system for
CNC code production. Includes production of a manufactured part using
CNC mill.

VOC MF25 — Advanced Parametric Solid Modeling for Desktop
Advanced instruction in concepts, practice, and development of feature-
based solid modeling using Autodesk Mechanical Desktop. Advanced
features of solid modeling; global variables, 3-D helical paths
generation, surface cut, table-driven parts, and advanced scene and
assembly techniques. Students who repeat this course will improve skills
by further instruction and practice.

VOC MF27 — AutoDesk Inventor
Advanced concepts, practice, and development of feature-based solid
modeling using AutoDesk Inventor. Solid modeling parts creation using
sketched, placed, and work features. Assembly techniques, working
drawings, and the transfer of a solid model to a CAM system.

VOC MF38 — MasterCAM 1
Use MasterCAM software to create wire-frame part geometry, add tool
paths and create CNC code for CNC mills and CNC lathes. Students who
repeat this course will improve skills through further instruction and practice.

VOC MF38B — Advanced MasterCAM
Use MasterCAM software to create wire-frame 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.

VOC MF38C — MasterCAM Solids
Using MasterCAM software to design wire drawings, translate to solids
drawings, and generate code from a solids creation to meet industrial
standards. Students who repeat this course will improve skills through
further instruction and practice.

VOC MF39 — SurfCAM 1
SurfCAM software used to create part geometry from project drawings
for two-axis milling and turning parts. Tool paths will be added and
files completed and post-processed. Files will be downloaded to CNC
machines. Students will be required to set up all cutting tools and
machine the part. Students who repeat this course will improve their
skills through further instruction and practice.

VOC MF39B — SurfCAM 2
Use SurfCAM software to create part geometry for three-axis milling
and lathe parts from project drawings and CAD files. Tool paths will be
added and the completed file will be post-processed and downloaded
to CNC machine. Students will set up the required cutting tools and
machine the part. Students who repeat this course will improve skills
through further instruction and practice.

VOC MF58 — Blueprint Reading for Manufacturing
Blueprint reading as a means of interpreting and visualizing drawings
used in manufacturing. Includes the basic print form, title block, notes,
materials, machining specifications, application of principles to CNC,
weeding, and sheet metal. Students who repeat this course will improve
skills through further instruction and practice.

VOC MF70 — Technical Mathematics - Manufacturing Applications
Applications of mathematical principles in manufacturing. Includes
arithmetic calculations, measurement, use of formulas, geometry, and
trigonometry. Students who repeat this course will improve skills
through further instruction and practice.

VOC MF85 — Manual Computerized Numerical Control (CNC)
Programming
Theory and practice in manually developing CNC programs. Methods of
transmitting data to CNC machines and physical set-up and operations of
CNC equipment. Students who repeat this course will improve skills
through further instruction and practice.

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

VOC CFDI — Digital Photography for the Beginner
Operation of digital cameras, image management and composition,
development of research skills using the Internet, and imaging graphics
software. A hands-on course which includes scheduled field trips.

VOC GRP01 — Computer Graphics Lab
Provides computer laboratory experience to supplement the regular
program, and provides opportunities for students to pursue more
advanced projects. Students who repeat this course will improve skills
through further instruction and practice.

VOC GRP10 — Photo Editing with Photoshop
Basic techniques to adjust and modify photos using Photoshop software
tools. Includes digital color theory and photo quality standards; practice
photoscan reproduction, resolution and scaling, masking, layer editing
effects and layers, filters, color correction and file formats; output for editing,
restoring, and retouching.

VOC GRP12 — Advanced Photoshop
Advanced training in Photoshop editing, color, exposure, sharpness and
contrast enhancement, layer and object masking, vector tools, image
compositing and the uses of blended modes; design of realistic and
imaginary photo illustrations using 8- and 16-bit high resolution images.

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
greyscale images.

VOC GRP16 — Digital Image Design
Basic digital image drawing techniques using Adobe Illustrator or
Macromedia Freehand. Includes software tools, applying color, using
layers, typography, measurement, and paper systems. Practice importing
photo scans, creating layouts, layer animation, choosing fonts, special
effects, export file formats, and output in a digital workflow.

VOC GRP18 — Advanced Image Design - 3D Modeling Techniques
Advanced digital image drawing emphasizing creation of photorealistic
3D models and environments. Principles of perspective, coordinate
space, photographic lighting, object animation, photo and video texture
mapping, and common techniques for rendering still or animated
QuickTime image movies for digital compositing and post-production.

VOC GRP20 — Applying Photos and Images in Multimedia
Principles of digital storytelling, combining still photos, graphics images,
type, video, and audio content output to digital CD or DVD media, video, or
Web pages. Commonly used tools and techniques of Apple’s iPhoto,
iMovie, iDVD, iTunes, GarageBand, and QuickTime Pro multimedia software,
Mac OS X features, and other multimedia software and hardware.

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.
### Occupational — Black & White Photography

**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 techniques 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 — Color Photography

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### 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 directs students to interface with various patient populations. Weekend and overnight labs to various areas within California may be offered. Out-of-class projects required.

**VOC SL3 — Service Learning Seminar in Community Involvement**  
Examines and profiles community needs through service learning. Explores and directs students to interface directly 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.

**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.

**VOC SL2 — Service Learning — Seminar in Community Involvement**  
Examines 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.

### Special Needs Population

**VOC CISCO — Computer Operations**  
Training in basic computer skills such as starting a computer, setting up user preferences, mounting disc drives and practicing basic software application programs including word processing, simple spreadsheets and typing programs.

**VOC MFAR — Assembly Repair Skills**  
Training in assembly operations, machine and maintenance repair; service occupations such as janitorial services, grounds keeping, etc. Develop and practice assembly skills through simulated and real work situations.

### 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.

### 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.
### 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.

### Occupational — Woodworking

**VOC WD01**  — Woodworking - Beginning  
Designed for students with little or no woodworking experience. Includes use of hand tools and power woodworking equipment with an emphasis on safety.

**VOC WD02**  — Intermediate Woodworking  
Prerequisite: VOC WD01 or equivalent experience. Intermediate woodworking which includes designing, cost analysis, craftsmanship and occupational opportunities in the field. Elementary joinery, adhesives, simple production techniques, and wood finishes will be covered.

**VOC WD03**  — Cabinetmaking/Woodworking  
Students who wish to take this course must have completed a beginning woodworking class. Project proposals are created by students in accordance with their background and interests. Includes recognition of wood varieties, their basic characteristics and applications.

### 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 Arch Welding  
Basic electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (AWS) procedure for certification.

**VOC WL53A**  — Welding Metallurgy  
Designed for students seeking a career in welding and welding inspection. Covers structure of material, chemical, physical and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation and heat treatment.

**VOC WL60**  — Print Reading and Computations for Welders  
Reading prints and performing computations for welding fabrication operations. Interpreting and visualizing prints, title blocks, welding symbols, specifications, notes, and bills of materials. Computations necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions.

**VOC WL70A**  — Beginning Arc Welding  
Develops manipulative skills and techniques for the beginning student welder on the shield metal arc (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 WL80**  — Fabrication and Construction Welding  
Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components.

**VOC 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.

**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. Costumes and 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 TR106**  — 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.
SECTION TWELVE

College Policies
and Notices
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 365.5 (specially trained guide, signal, or service dogs). Leaving a pet in a parked vehicle, no matter what provisions are made for its safety, may constitute unnecessary suffering or cruelty which is a violation of California Penal Code 597.

Campus Disturbances
In accordance with California Penal Code (P.C. 626.6), the willful disturbance of classes, College activities, or procedures is a misdemeanor.

Campus Hours
The College offers instruction between the hours of 6:30 a.m. and 10:00 p.m., Monday through Sunday. Office hours vary depending on the services provided. Refer to the latest Schedule of Classes or call for specific office hours.

Children on Campus
While on the campus of Mt. San Antonio College, children under 12 years of age who are not approved for enrollment must be directly supervised at all times by a responsible adult. Such children shall not be left unattended in College buildings, outdoor areas, or in private automobiles.

Classroom Visitors 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. Disabled Students Programs and Services (DSPS) may authorize a person to be a Personal Care Attendant (PCA) when the need for such accommodation is authorized by DSPS prior to beginning service as a PCA. Additional information regarding classroom visitors can be found in Administrative Procedure 4700.

Dress Regulation
Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

Driving and Parking
Users of Mt. San Antonio College campus roads and parking areas must observe and obey all traffic laws of the State of California and the College traffic and parking regulations adopted pursuant to Section 21113 of the California Vehicle Code and the Mt. San Antonio College Board of Trustees.

All four-wheeled vehicles parked in designated student lots MUST bear a valid parking permit for the semester enrolled. The Student Parking Permit is valid in designated student lots except in the spaces controlled by parking meters or reserved signage. Free 30-minute parking is available north of the Bookstore, west of the Administration Building, and south of the Performing Arts Center. Permit parking regulations are strictly ENFORCED during the Fall, and Spring semesters and summer and winter sessions from 7:00 a.m. to 10:00 p.m. Monday through Thursday, and Friday 7:00 a.m. to 4:00 p.m.

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,” 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 required to wear approved eye protective devices in all classes, shops, and laboratories when they are engaging in or observing the use of hazardous materials likely to cause injury to the eyes. Such eye protective devices shall meet the requirements of the American Standards Association Safety Code.

Cheating and Plagiarism

Cheating
Professors have the responsibility of planning and supervising all academic work to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered. However, honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reasons, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed by the professor. The term “cheating” includes but is not limited to:

- Plagiarism
- Receiving or knowingly supplying unauthorized information
- Using unauthorized material or sources
- Changing an answer after work has been graded and presenting it as improperly graded
- Illegally accessing confidential information through a computer
- Taking an examination for another student or having another student take an examination for you
- Forging or altering registration or grade documents

The professor who determines that a student has cheated may give the student a failing grade for the assignment or for the course, or may drop the student from the course. Since the student has failed to abide by the standards of academic honesty, the professor has a right to give an “F” for the assignment or the course even though the student may have successfully and, presumably, honestly passed the remaining portion of the assignment or course. If the professor issues a failing grade for the course or drops the student, the actions shall be reported to the Dean of Student Services, or Director of Student Life. An professor may also recommend that appropriate action be taken under provisions of the Administrative Regulations and Procedures on Student Discipline.

Plagiarism
"Plagiarism is a direct violation of intellectual and academic honesty. Although it exists in many forms, all plagiarism refers to the same act: representing somebody else's words or ideas as one's own. The most extreme forms of plagiarism are the use of material authored by another person or obtained from a commercial source, or the use of passages copied word for word without acknowledgment. Paraphrasing an author's idea or quoting even limited portions of his or her text without proper citation is also an act of plagiarism. Even putting someone else's ideas into one's own words without acknowledgment may be plagiarism. In none of its forms can plagiarism be tolerated in an academic community. It may constitute grounds for a failing grade, probation, suspension, or expulsion."

Academic Honesty
All members of the academic community have a responsibility to ensure that scholastic honesty is maintained. Faculty has the responsibility of planning and supervising all academic work in order to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered.

Honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reason, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed by the professor.
“One distinctive mark of an educated person is the ability to use language correctly and effectively to express ideas. Faculty assign written work for the purpose of helping students achieve that mark. Each instructor will outline specific criteria, but all expect students to present work that represents the student's understanding of the subject in the student’s own words. It is seldom expected that student papers will be based entirely or even primarily on original ideas or original research.”

“Therefore, to incorporate the concepts of others may be appropriate with proper acknowledgment of sources, and to quote others directly by means of quotation marks and acknowledgments, is proper. However, if a paper consists entirely of quotations and citations, the paper should be rewritten to show the student's own understanding and expressive ability. The purpose of the written assignment (i.e., development of communication and analytic skills) should be kept in mind as each paper is prepared. It should not be evaded through plagiarism.”*

*Adopted, with permission of California State University, Los Angeles, from their policy printed in the 1987-88 General Catalog.

**Non-Discrimination Policy**

Mt. San Antonio College 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, 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.cccco.edu/SystemOffice/Divisions/Legal/Discrimination/tabid/294/Default.aspx or the Student Grievance and Complaint forms 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

**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, et al., shall be applied whether the violator is an employee, student or member of the general public.

Services available to help assure your safety include:

- **Campus Escorts** who are available during evening hours to assure your safety on campus and in parking lots. They are provided at your request, please call ext. 4233.
- **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) 394-5611, 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 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. Caring, 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. Caring or attempting to cause damage to College property or to private property on campus.
6. Stealing or attempting to steal College property or private property on campus, or knowingly receiving stolen College property or private property on campus.
7. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the College.
8. Committing sexual harassment as defined by law or by College policies and procedures.
9. Engaging in harassing or discriminatory behavior based on national origin, religion, age, sex (gender), race, color, medical condition, ancestry, sexual orientation, marital status, physical or mental disability, or because a person is perceived to have one or more of the foregoing characteristics.
10. Willful misconduct that results in injury or death to a student or to College personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the College or on campus.
11. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, College personnel.
12. Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty.
13. Dishonesty, forgery, alteration or misuse of College documents, records or identification; or knowingly furnishing false information to the College.
14. Unauthorized entry upon or use of College facilities.
15. Levied, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.
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 contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any College policy or Administrative Procedure.

19. Harassment of students and/or College employees that creates an intimidating, hostile, or offensive environment.

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 a building. This includes all College-leased and College occupied buildings. Further, smoking is banned in the swimming pool area, Himmer 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:

https://www.mtsac.edu/administration/trustees/policies/bp_complete.pdf#bp5
https://www.mtsac.edu/administration/trustees/administrative-procedures.pdf

Student Services, AP 5140. Alternately, they are also available in Disabed Student Programs & Services, Ext. 4290.

Reserve Officer Training Corps (ROTC)

Students interested in pursuing a military career can participate in an approved Reserve Officer Training Corps program offered through local universities. Programs include the Air Force ROTC Program offered through the University of Southern California (USC) and Harvey Mudd College. Other university ROTC programs include the Army ROTC, programs at Cal Poly Pomona, USC and Cal State Long Beach. These programs are open to community college students pursuing an undergraduate degree, prior to transfer. Competitive one- to four-year scholarships are available to qualified applicants. Additionally, students may be eligible to receive money to cover books and other costs. Students interested in participating in an ROTC program are advised to contact the ROTC program at the participating university.

NOTICES

Equal Opportunity Statement

The Board of Trustees of Mt. San Antonio College has a commitment to establishing and maintaining a policy of equal educational and employment opportunities and prohibiting discrimination based on sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. This commitment applies to educational programs, activities, service, and employment practices.

Notice of Students’ Rights

Students at Mt. San Antonio College are notified annually of their rights under the act within this section of the Catalog. More detailed information on student rights is available from the Dean, Enrollment Management, including: 1) type of information and material contained within the student’s educational record; 2) the official responsible for the maintenance of each type of record; 3) the procedure for student review and inspection of the educational record; 4) the procedure for challenging the contents of the educational record; 5) the charges to the student for reproducing copies of the record if requested; 6) the categories of information which the College has designated as Directory Information and to whom this information will be released unless the student objects; and 7) the rights of a student to file a complaint with the United States Department of Education concerning alleged failure of the College to comply with the provisions of the Act.

Federal Review Board

Students may file a complaint with the United States Department of Education, Room 5600, Independence Avenue, S.S., Washington, D.C. 20201, regarding alleged institutional violations of the Act.

Open Enrollment

All classes are open to all students who meet the course prerequisites and enrollment requirements, unless specifically exempted by statute. The College provides open access to all program offerings, opportunities, and support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV and AIDS), sexual orientation, or Vietnam Era Veteran Status.
Public Safety

In compliance with the Clery Act, the College publishes an annual security report which contains information regarding campus crime statistics. This information may also be found on the website at www.mtsac.edu by clicking on Public Safety. Copies of the annual report can be obtained from the Public Safety Department, Building 4, Room 105. A Public Safety crime log is published bi-monthly in the student newspaper and brochures on Emergency Procedures are posted throughout the campus.

During the 2003-2005 calendar years, criminal offenses occurring on campus were reported to campus security authorities and local police agencies. Please see the Public Safety Department Statistical Crime Report listed in the box 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 the Public Safety Department or call the Los Angeles County Sheriff’s Department 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 consists of stand-alone emergency phone towers, located in open campus spaces, primarily in campus parking lots. These phone towers are identified by a blue light affixed to the top of the tower.

Use of any of these emergency phones will connect the user to Campus Security during normal business hours, located in Building 4. During hours when the campus is closed, the Emergency phones will connect the user directly to a cell phone carried by Campus Security Officers who are on duty 24 hours a day, 7 days a week.

Student Rights and Privacy Act


Access to Educational Records

All former and present students have the right to review and inspect their educational records in the Office of Admissions and Records provided they make a written request fifteen (15) days in advance. Such a review will be under the direct supervision of a classified or certificated employee in the Admissions and Records Office. Expressly exempted from the right of review and inspection are the following materials:

1. Financial records of the parents of the student(s).
2. Confidential letters and statements of recommendation maintained by the College on or before January 1, 1975, provided that such letters or statements are not used for purposes other than those for which they were specifically intended.
3. Records of instructional, supervisory, counseling, and administrative personnel which are in the sole possession of such personnel and are not accessible or revealed to any other person except a substitute.
4. Records of employees of Mt. San Antonio College, made and maintained in the normal course of business which relate exclusively to such person in that person’s capacity as an employee, are available to a person 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 the appropriate 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
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<tr>
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<th>Degree(s)</th>
<th>Institute(s)</th>
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Nursing
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

Chen, Meghan M. (2000)
Dean, Library & Learning Resources
B.A., University of California, Los Angeles
M.P.A., California Lutheran University
M.A., California State University, Los Angeles

Chevalier, Jason (2000)
Music
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Christopher, Micol (2005)
Earth Sciences, Astronomy
B.A., Harvard University
M.S., Ph.D., California Institute of Technology

Churchill, Peter (2005)
English, Literature & Journalism
B.A., M.A., California State University, Fullerton

Condra, Denise (2006)
Nursing
B.A., Whittier College
B.S.N., M.S.N., Azusa Pacific University

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
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Child Development
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M.S., Pacific Oaks College


Daland, William (2005)
Counseling
B.A., California State University, Fullerton
M.S., California State University, Long Beach

Daum, Sarah (1998)
Dean, Technology & Health
A.B., Stanford University
M.S., University of Michigan
Ed.D., Nova Southeastern University

Davis, Maria (2005)
Consumer Science & Design Technologies
B.A., American InterContinental University

Davydova, Anna (1999)
Computer Information Systems
B.S., M.S., Lincoln University for Economics
Engineers
M.S., California State University, San Bernardino

Deines, Craig B. (1997)
Fine Arts
B.A., M.F.A., Central Washington University

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.A., Ph.D., University of California, Santa Barbara

Di Mauro, Eileen (1991)
Chemistry
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M.S., University of California, Irvine

Distante, Debbie (2000)
Librarian
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M.A., University of Iowa

Domino, Brenda L. (1997)
Accounting & Management
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Certified Managerial Accountant

Dougherty, Michelle (2007)
English, Literature & Journalism
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Dowdle, Michael (2005)
Psychology, Education
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Business Administration
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Ph.D., Southeastern University

Earhart, Kimberly (2005)
History & Art History
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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
M.F.A., University of California, Los Angeles

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Consumer & Design Technologies
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Mathematics, Computer Sciences
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Air Conditioning & Welding
A.A., Ceritos College
B.S., M.S., Eastern Michigan University

Ellwood, Jeffrey (2006)
Music
B.M., Berklee College of Music
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Emanuel, Elaine S. (1998)
Computer Information Systems
A.S., Mt. San Antonio College
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M.A., University of Phoenix

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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
M.A., Psy.D., Biola University, La Mirada
Psy.D., Biola University, La Mirada

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English, Literature & Journalism
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History & Art History
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Business Administration
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**The Faculty**
The Faculty

Hall, Martha (2007)
   Learning Assistance
   B.A., University of California, Riverside
   M.A., Claremont Graduate University

Hall, Sushma S. (1990)
   Sociology, Philosophy
   B.A., M.A., University of Hawaii

Hanson, Grace (1996)
   Director, Disabled Student Programs & Services
   B.A., M.A., California State University, Long Beach
   Transition Services for Individual with Disabilities Certificate

   English, Literature & Journalism
   B.A., M.A., San Diego State University

Hartman, Laurie (2007)
   Commercial and Entertainment Arts
   B.F.A., Rochester Institute of Technology

Hatch, Rebecca (2001)
   Sociology, Philosophy
   B.A., California Lutheran University
   M.S., Ph.D., University of Southern California

Hearn, Lance (2008)
   Public Services
   B.S., United States Military Academy, West Point
   M.S., University of Cincinnati

Henkins, Kathryn (1987)
   English, Literature & Journalism
   B.A., University of Redlands
   M.A., California State University, Los Angeles
   B.A., California State University, Fullerton
   Ph.D., Claremont Graduate School

Henry, Anthony (2007)
   Child Development
   B.A., Humboldt State University
   M.A., California State University, Los Angeles
   M.A., Azusa Pacific University

Hernandez, Alina (1988)
   Counseling
   A.A., Santa Ana Community College
   B.A., M.A., California State University, Fullerton
   Ph.D., University of Southern California

Hernandez, Marcella (2007)
   Counseling
   B.A., M.A., California State University, San Bernardino

Hernandez, Cristina M. (1997)
   History & Art History
   B.A., M.A., University of California, Santa Barbara

Herrera, Irene (2000)
   Director, EOPS
   B.S., California State University, Fullerton
   M.S., California State University, Los Angeles

Hight, Lynnette C. (1971)
   English, Literature & Journalism
   B.A., M.A., California State University, Los Angeles

Hill-Enriquez, Evelyn (1991)
   American Language
   A.A., M.S., California State University, Fullerton
   TESOL Certificate

Hischar, Paul (1998)
   Accounting & Management
   B.S., California State Polytechnic University, Pomona
   M.B.A., West Coast University

Ho, Robert I. (1984)
   Architecture & Engineering Design Technology
   B.S., Cheng Kung University
   M.Arch., University of Minnesota
   NCARB, National Council of Architectural Registration Boards
   California Licensed Architect

Hoffman, Harlan (2005)
   History, Art History, Geography, Political Science
   B.A., M.A., California State University, Fullerton
   Ph.D., University of California, Riverside

Hoffman, Ruth Jean (1997)
   Agricultural Sciences
   A.S., Mt. San Antonio College
   B.S.E., California State University, San Bernardino

Hoggan, Lynda Smith (1996)
   Biological Sciences
   B.S., Slippery Rock University
   M.P.H., University of California, Los Angeles

Hood, Michael (2009)
   Earth Sciences, Astronomy
   B.S., University of Wisconsin-Madison
   M.S., University of California, Irvine

Hoover, Karelyn (1995)
   Chemistry
   B.S., M.S., New Mexico Institute of Mining & Technology

Horton, Tamra (2000)
   English, Literature & Journalism
   B.A., University of California, Davis
   M.A., University of Wyoming
   Ph.D., Louisiana State University

Hosea, Phoebe (2007)
   Mathematics, Computer Science
   B.S., M.S., University of California, Irvine

Howell, Luisa (2002)
   Foreign Languages
   B.A., M.A., California State University, Sacramento

Huang, Kenneth (2006)
   Chemistry
   M.S., California State University, Long Beach
   Ph.D., University of California, Santa Barbara

Huang, Shui-lien (1989)
   Computer Information Systems
   B.A., West Texas State University

Hughes, Douglas (1999)
   Child Development
   A.A., San Diego City College
   B.A., M.A., Pacific Oaks College

Iymer, Jonathan (2005)
   Electronics & Computer Technology
   B.A., University of California, Davis

Impara, Carol (2005)
   Consumer & Design Technologies
   B.A., Davidson College
   M.S., University of Maryland

Jackson, Christopher (2005)
   Physical Education
   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
   B.A., University of Miami
   M.S., University of Nevada

Jeffers, Bonnie H. (1997)
   Accounting & Management
   A.A., Cerritos 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
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Accounting & Management  
B.S., M.B.A., California Polytechnic University, Pomona

McFaul, Jason (1999)  
English, Literature & Journalism  
B.A., M.A., University of the Pacific

McGeough, Daniel (1986)  
Accounting & Management  
B.A., California State University, Fullerton  
M.B.A., California State University, Long Beach  
Certified Public Accountant

Accounting & Management  
B.S., San Diego State University  
M.B.A., California State Polytechnic University, Pomona  
Certified Public Accountant

McGraw, Jill (1991)  
Mental Health Technology  
A.S., Santa Ana College  
B.V.E., California State University, Long Beach

McGruder, Charles (1992)  
Sociology, Philosophy  
B.A., University of Redlands, Johnston College  
M.A., Ph.D., Claremont Graduate School

McIntosh, William (1999)  
Music  
B.A., B.M., Biola University  
M.M., California State University, Long Beach

McKee, Catherine (1995)  
Business Administration  
B.A., University of California, Berkeley  
J.D., University of San Diego School of Law

McLaughlin, David L. (1997)  
Radiologic Technology  
A.A., A.S., Mt. San Antonio College  
B.S., University of St. Francis  
R.T., American Registry of Radiologic Technology  
California Certified Radiologic Technologist  
M.Ed., California State Polytechnic University, Pomona

McMullin, Janet (1990)  
Mathematics, Computer Sciences  
B.S., M.S., Northern Illinois University

McPhail, Yuki (1992)  
Foreign Languages  
B.A., Carthage College, Wisconsin  
M.A., Fuller Theological Seminary, Pasadena

Ma, Jannie (2008)  
Learning Assistance  
B.A., M.A., University of Southern California  
M.A., California State University, Fullerton

MacDonald, Jennifer (2001)  
Program Director, Histologic Technician  
Biological Sciences  
A.S., Canadore College, Canada

Madrigal, Paulo (2009)  
Interim Director, Community & Career Education  
A.A., Mt. San Antonio College  
B.S., California State Polytechnic University, Pomona  
M.S., University of La Verne

Maestro, Patricia (2004)  
Counseling/Coordinator Learning Communities  
A.A., East Los Angeles Community College  
B.A., California State University, Long Beach  
M.S., University of La Verne

Mageean, Michael (2000)  
English, Literature & Journalism  
B.A., M.A., California State Polytechnic University, Pomona  
Ph.D., University of California, Irvine

Marano, Americo (1986)  
Foreign Languages  
A.A., East Los Angeles College  
B.A., M.A., University of California, Los Angeles  
M.A., California State University, Fullerton

Martin, Douglas (1988)  
Mathematics, Computer Science  
B.A., Messiah College  
M.A., California State University, Fullerton

Mason, Martin (2002)  
Physics, Engineering  
B.S., University of California, Riverside  
M.S., University of California, Riverside

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, Phillip 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

Megel, Nancy (1998)  
Mental Health Technology  
B.S.N, M.S.N., Ed., University of Phoenix

Mehta, Jaisri (1999)  
Computer Information Systems  
B.A., M.A., Florida Institute of Technology

Meyer, Elizabeta (2001)  
Biological Sciences  
B.A., University of Pennsylvania  
Ph.D., Michigan State University

Mezaki, Barbara (1999)  
American Language  
B.A., University of Buffalo  
M.Ed., University of Buffalo  
J.D., Southwestern University
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<td>Commercial and Entertainment Arts</td>
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### The Faculty

**Q**

Quinn, Barbara (2006)  
Disabled Student Programs & Services  
B.A., California State University, Fullerton  
M.S.W., University of California, Los Angeles

English, Literature & Journalism  
A.A., Mt. San Antonio College  
B.A., M.A., California State Polytechnic University, Pomona

R

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

**R**

Rexach, 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

Sociology, Philosophy  
A.A., Pasadena City College  
B.A., M.A., Ph.D., University of Southern California

Ritz, Karol E. (1997)  
Dance  
B.A., University of California, Irvine  
M.A., California State University, Fullerton

Rivas, Hector (2007)  
Commercial and Entertainment Arts  
B.A., California Polytechnic University, Pomona  
M.B.A., Keller Graduate School of Management

Rivas, Tony M. (2005)  
Counseling, EOP&S/CARE  
A.A., Santa Ana College  
B.A., San Jose State University  
M.S., California State University, Long Beach

Robinson, Carolyn (2006)  
Learning Assistance  
B.S., California State Polytechnic, Pomona  
M.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, Airlines & Instruments, Commercial 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  
F.A.A. Certificates: Flight Instructor, Airlines & Instruments; Commercial Pilot

Romero, Oscar (2007)  
Nursing  
A.A., Mt. San Antonio College  
R.N., Los Angeles County - University of Southern California School of Nursing  
M.A., California State University, Fullerton/University of California, Irvine

Rubenstein, Susie (2005)  
Fine Arts  
B.A., University of California, Santa Cruz  
B.F.A., Kansas City Art Institute  
M.F.A., Cranbrook Academy

Rudd, Terry Shaylor (1988)  
Mental Health Technology  
A.S., East Los Angeles College  
B.S., California State University, Fullerton  
M.S., California State University, Los Angeles

Ruh, Marc T. (1997)  
Physical Education  
A.A., Mt. San Antonio College  
B.A., University of California, Santa Barbara  
M.A., Azusa Pacific University

Runnebohm, Stephen (1987)  
Dean, Humanities & Social Sciences  
B.S., M.A., Ball State University  
Ph.D., University of Missouri

Russell, Paul (1988)  
Learning Assistance  
B.S., California State Polytechnic University, Pomona  
M.Ed., California Lutheran College

**S**

Sakugawa, Jamie (2008)  
Agricultural Sciences  
B.A., California State Polytechnic University, San Luis Obispo

Sampat, Michelle (2007)  
Learning Assistance  
B.A., Pomona College  
M.A., Claremont Graduate School  
J.D., Whittier Law School

Sanchez, Andrew (2001)  
Mental Health Technology  
A.S., R.N., Mt. San Antonio College

Sanchez, Hector (2006)  
Counseling, EOP&S/CARE  
A.A., Glendale Community College  
B.A., University of California, Los Angeles  
M.S., University of La Verne

Sanchez, Lisbet (2008)  
Foreign Languages  
B.A., B.A., California State University, Los Angeles  
M.A., New Mexico State University

Sanchez, Juan (2005)  
Physical Education  
B.S., California State University, Los Angeles  
M.Ed., University of La Verne

Sardinas, Ignacio (2008)  
Architecture and Engineering Design Technology  
B.A., California State Polytechnic University, Pomona

Schmidt, Sherry (1985)  
Biological Sciences  
B.A., University of Montana  
M.A., California State University, Fullerton

Schmidt, Sherry (1985)  
Biological Sciences  
B.A., University of Montana  
M.A., California State University, Fullerton
**The Faculty**

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<td>English, Literature &amp; Journalism, B.A., Westmont College, M.A., Ph.D., Claremont Graduate University</td>
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<td>Director, Student Life, B.S., M.A., California State Polytechnic University, Pomona, Ed.D., University of Southern California</td>
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<td>Ton, Chan-Phuong</td>
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<td>English, Literature &amp; Journalism, B.A., M.A., California State University, Chico</td>
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<td>Commercial and Entertainment Arts, A.A., Long Beach City College, B.A., California State University, Fullerton</td>
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<td>History, Art History, Geography, Political Science, A.A., Mt. San Antonio College, B.A., California State University, Fullerton, M.A., University of California, Santa Barbara</td>
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<td>Chemistry, B.A., University of California, San Diego, Ph.D., California Institute of Technology</td>
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<td>Registered Veterinary Technology, B.S., University of California, Davis, D.V.M., Iowa State University</td>
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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.

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